

A. Introduction

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A. Introduction

On November 2, 2005, San Diego Gas & Electric Company (SDG&E) filed with the Bureau of Land Management (BLM) a Right-of-Way (ROW) Grant application. On December 14, 2005, SDG&E submitted to the California Public Utilities Commission (CPUC) an application for a Certificate of Public Convenience and Necessity (CPCN), and subsequently, on August 4, 2006, submitted an amended application accompanied by its Proponent's Environmental Assessment (PEA) for the Sunrise Powerlink (SRPL) Transmission Line Project (Proposed Project).

The California Public Utilities Commission identifies the SRPL Project as Application A.06-08-010 (formerly A.05-12-014). This Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) has been prepared by the CPUC as Lead Agency under the California Environmental Quality Act (CEQA) and the U.S. Department of the Interior, BLM under the National Environmental Policy Act (NEPA) to inform the public and to meet the needs of local, State, and federal permitting agencies to consider the project proposed by SDG&E (or "the Applicant").

The project proposed by SDG&E is described briefly below, and in detail in Section B of this EIR/EIS. **This EIR/EIS does not make a recommendation regarding the approval or denial of the project; it is purely informational in content, and will be used by the CPUC and BLM in considering whether to approve the Proposed Project or any of the alternatives analyzed in this EIR/EIS.**

This EIR/EIS evaluates and presents the environmental impacts that are expected to result from construction and operation of SDG&E's proposed Sunrise Powerlink project, and presents recommended mitigation measures that, if adopted, would avoid or minimize many of the significant environmental impacts identified. In accordance with CEQA and NEPA requirements, this EIR/EIS also identifies alternatives to the Proposed Project (including the No Project Alternative) that could avoid or minimize significant environmental impacts associated with the project as proposed by SDG&E, and evaluates the environmental impacts associated with these alternatives. Based on this environmental impact assessment, as well as the relative sensitivities of impacts in the study region, this EIR/EIS identifies the Environmentally Superior Alternative as required by CEQA. BLM has decided not to identify an Agency Preferred Alternative in the Draft EIR/EIS, as allowed by BLM's NEPA guidelines (BLM Manual 1790-1, Ch. V(B)(4)(c)).

The contents of this Draft EIR/EIS reflect input by government officials, agencies, nongovernmental organizations, and concerned members of the public during the two EIR/EIS scoping periods following the CPUC's publication of the Notice of Preparation (NOP) of an EIR/EIS (September 15, 2006) and the BLM's publication of the Notice of Intent (NOI; August 31, 2006). During these comment periods, several public involvement activities were completed: distribution of the NOP by mail, publication of the NOI in the Federal Register, and two scoping meeting notices, establishment of an Internet web page and a telephone hotline, 15 public scoping meetings (seven in October 2006 and eight in February 2007), and meetings with a number of affected local jurisdictions (see details in Section I). Consultation with agencies and tribal governments also continued after the formal scoping periods ended. In addition, notices regarding alternatives to be evaluated in the EIR/EIS were mailed in March and May of 2007.

This section is organized as follows: Section A.1 summarizes the SRPL Project as proposed by SDG&E; Section A.2 outlines the purpose and need for the Proposed Project as defined by SDG&E; Section A.3 explains the process of electricity procurement and resource adequacy planning as overseen by State

agencies; Section A.4 describes the region's electric system and presents information related to the need for the Proposed Project; Section A.5 describes renewable generation in the Imperial Valley; Section A.6 describes agency use of the EIR/EIS, and includes a brief description of the CPUC, BLM, and other agencies' processes for consideration of project approval; and Section A.7 presents a Reader's Guide to this EIR/EIS, explaining how it is organized.

A.1 Overview of Proposed Project

SDG&E proposes to construct a new 91 miles, 500 kilovolt (kV) electric transmission line from Imperial Valley Substation (in Imperial County, near the City of El Centro) to a new Central East Substation (in central San Diego County, southwest of the intersection of County Highways S22 and S2) and a new 59 miles 230 kV electric transmission line that includes both overhead and underground segments from the new Central East Substation to SDG&E's existing Peñasquitos Substation (in the City of San Diego). Section B presents a detailed description of the Proposed Project; the general location is illustrated in Figure ES-1 in the Executive Summary and in Figure B-1 in Section B. Each of the components of the Proposed Project is described below.

Imperial Valley Link

- The easternmost segment of the project would consist of 60.9 miles of the route, including the entire Imperial County portion and a few miles in San Diego County.
- Land ownership within the 61 miles Imperial Valley Link is primarily private (28.4 miles) and BLM land (31.4 miles). Land uses along the Imperial Valley Link include agriculture (13.5 miles), open space and recreation (46.2 miles) and undeveloped private property.
- The SRPL in the Imperial Valley Link would require construction of a total of 205 new 500 kV towers with an average height of 160 feet.
- The Imperial Valley Link would require that SDG&E obtain a new 200-foot Right of Way (ROW), and would require construction of 49.4 miles of new access roads.
- The Imperial Valley Link also includes upgrades to the existing SDG&E Imperial Valley Substation to accommodate the termination of the new 500 kV transmission line.

Anza-Borrego Link

- The Proposed Project would include 22.6 miles through the Anza-Borrego Desert State Park (ABDSP).
- The entire Anza-Borrego Link would be located within ABDSP. The project as proposed in the Park would be located on 50.2 acres of land designated as State Wilderness, requiring the de-designation of that land from wilderness status. The Anza-Borrego Link would follow much of an existing ROW within the Park. The ROW is generally 100 feet wide, but the project would require that SDG&E obtain at least an additional 50 feet of ROW from the State Park. While existing access roads would be used along most of the Anza-Borrego Link, eight miles of new access roads would be required.
- Within the Park, a total of 141 new 500 kV towers would be constructed at an average height of 130 feet. The existing 92 kV (east of Narrows Substation) and 69 kV (west of Narrows Substation) lines would be installed underground along SR78 or would be added to the 500 kV towers as an "underbuild." The existing wood poles would be removed.

Central Link

- The project within the Central Link would be 27.3 miles long, including 7.4 miles of 500 kV line and 19.9 miles of 230 kV line.
- Land ownership along the Central Link is: Vista Irrigation District (8.7 miles), private property (11.1 miles), and SDG&E (0.1 miles). The route would pass adjacent to the Santa Ysabel Reservation and just outside of the Cleveland National Forest and San Felipe Hills Wilderness Study Area (BLM). Land uses along the Central Link include undeveloped open space (22 miles), agriculture (5.1 miles), roads (0.3 miles), and park land (0.2 miles).
- The Central Link would include portions of both the 500 kV and 230 kV transmission lines, and the proposed new Central East Substation. Thirty five new 500 kV lattice towers would average 160 feet tall, and 123 new 230 kV towers would average 120 feet tall. The 500 kV line would follow SDG&E's existing 69 kV transmission line ROW through Grapevine Canyon for approximately four miles, where the existing 69 kV circuit would be removed from the wood poles and attached (underbuilt) to the 500 kV structures through this segment.
- The double-circuit 230 kV line would parallel a rebuilt 69 kV transmission line that is currently located along SR79 for approximately nine miles, where the existing 69 kV circuit would be relocated and placed on new tubular steel poles within the SRPL ROW. The existing 69 kV poles would be removed along these nine miles.
- New ROW would be required in the Central Link ranging from 200 to 300 feet in width, and construction of 36.4 miles of new access roads would be required.
- The proposed Central East Substation, requiring approximately 106 acres of disturbance, would be located on a parcel owned by SDG&E. The substation would include the 500 kV and 230 kV transmission lines and 500/230 kV transformer banks.

Inland Valley Link

- The 25.5 miles route in this area would begin southwest of Santa Ysabel, pass south of central Ramona, and end at the existing SDG&E Sycamore Canyon Substation on the north edge of Marine Corps Air Station Miramar.
- Land ownership in the Inland Valley Link includes SDG&E ROW (16.9 miles), BLM (1.2 miles), Department of Defense – Marine Corps Air Station (MCAS) Miramar (0.7 miles), Vista Irrigation District (0.1 miles), San Diego County (1.1 miles), and private (6.1 miles). Land use in this link includes undeveloped open space (13.1 miles), agricultural land (1 mile), recreation (7 miles) and public streets in residential areas (through which the route would pass for 4.2 miles underground in roads).
- New 230 kV towers would average 120 feet tall, and would include 125 double-circuit 230 kV tubular steel poles with lattice structures being used in areas where limited vehicle access would require helicopter construction. In addition, two tubular steel cable poles would be located at each end of the underground segment south of Ramona to transition between overhead and underground segments, each supporting conductors for a single 230 kV circuit.
- Much of the Inland Valley Link would parallel an existing 69 kV transmission line, but 13 miles of new ROW would need to be acquired, ranging from 60 to 200 feet in width. Nearly 8 miles of new access roads would be required.

Coastal Link

- A new, 13.6 miles single-circuit 230 kV transmission line would be constructed from the existing Sycamore Canyon Substation in Rancho Peñasquitos and terminate at the existing Peñasquitos Substation in the Torrey Hills area of the City of San Diego. An existing 138 kV line on H-frame structures would be relocated onto the new 230 kV towers, and the existing H-frame towers would be removed.
- Land ownership in the Coastal Link includes: SDG&E ROW (11.8 miles), private property (0.1 miles), City of San Diego (1.4 miles), and Department of Defense – MCAS Miramar (0.3 miles). Land use in this link includes commercial (0.1 miles) open space and parks (11.2 miles), utilities and transportation (1.8 miles) and residential (0.4 miles). The Coastal Link would traverse 1.6 miles of Los Peñasquitos Canyon Preserve.
- The Coastal Link would require construction of 48 new structures averaging 120 feet tall.
- The Coastal Link would include modifications to the existing Sycamore Canyon and Peñasquitos Substations. The Sycamore Canyon Substation would be modified to accommodate termination of three new 230 kV transmission circuits. The Peñasquitos Substation would be modified to accommodate one new 230 kV circuit.
- Approximately 0.4 miles of new access roads would be required in this segment.

Other System Upgrades

- A reconductor¹ of the existing Sycamore Canyon to Elliot 69 kV transmission line would be required.
- The San Luis Rey Substation would be modified with the addition of a third 230/69 kV transformer and a 230 kV, 69 Mega Volt Ampere Reactive (MVAR) shunt capacitor.
- The South Bay Substation would be modified with the addition of a 69 kV, 50 MVAR shunt capacitor.

Future Transmission System Expansion

- **230 kV Future Phases.** At least four additional 230 kV future circuits may be required after the two 230 kV circuits proposed as part of the SRPL. This expansion may not be needed for decades, but two additional 230 kV circuits are possible within the first decade following completion of the Sunrise Powerlink. The most likely substation end points for the additional 230 kV circuits are Sycamore Canyon, Peñasquitos, Escondido, Mission, and Los Coches Substations.
- **500 kV Future Phases.** While not currently planned by SDG&E, a 500 kV circuit may be constructed from the proposed Central East Substation to connect with the Southern California Edison transmission system. This would involve construction of a new 500 kV transmission line, likely following an existing 69 kV transmission corridor and also possibly the route of the Lake Elsinore Advanced Pumped Storage (LEAPS) Project's 500 kV line.

Connected Actions and Indirect Effects

The CPUC and BLM have determined that four projects are so closely related to the Proposed Project as to be considered “connected actions” under NEPA. These four projects are the Stirling Energy Systems solar facility, two components of the IID 230 kV transmission system upgrades, the Esmeralda–San Felipe Geothermal Project, and the Jacumba 230/500 kV Substation (see Figure B-1, Section B). One

¹ Reconductoring is the installation of new, higher capacity conductors, generally on existing towers (some new towers would be required when existing towers cannot support the greater weight of the new conductors).

additional project, a wind project in northern Mexico's La Rumorosa area, under contract to meet Southern California Edison's renewable requirements, is considered as an "indirect effect" of the Proposed Project.

A.2 Purpose and Need for the Proposed Project

SDG&E explains that it developed the Sunrise Powerlink Project for three major reasons (1) to bring renewable energy resources to San Diego County from Imperial County by providing access to remote areas with the potential for significant development of renewable energy sources; (2) to improve electric reliability within the San Diego area by providing additional transmission during peak loading and for the region's growing economy; (3) and to reduce congestion and power supply costs of delivering electricity to ratepayers (SDG&E, 2006a).

A.2.1 SDG&E's Project Objectives

As stated by SDG&E (in PEA Section 3.1), the eight objectives for building the SRPL are to:

1. Ensure SDG&E's transmission system satisfies minimum California Independent System Operator (CAISO), North American Electric Reliability Corporation (NERC), and Western Electricity Coordinating Council (WECC) reliability criteria throughout the planning horizon of the Long-Term Resource Plan (LTRP) and beyond, including the requirement that there be no loss of load within the San Diego area under G-1/N-1 contingency conditions.² Avoid siting the Proposed Project parallel to Southwest Powerlink (SWPL) for long distances especially avoiding areas with fire history or fire potential.
2. Provide a transmission facilities with a voltage level and transfer capability that (a) allows for prudent system expandability to meet both anticipated short-term (2010) and long-term (2015 and beyond) load growth through a total San Diego area import capability of at least 4,200 MW (all lines in service) and 3,500 MW (under G-1/N-1 contingency conditions) and (b) supports regional expansion of the electric grid.
3. Provide transmission capability for Imperial Valley renewable resources for SDG&E customers to assist in meeting or exceeding California's 20% renewable energy source mandate by 2010 and the Governor's proposed goal of 33% by 2020.
4. Reduce the above-market costs associated with maintaining reliability in the San Diego area while mitigating the potential exercise of local market power, particularly the costs associated with inefficient generators such as the South Bay and Encina Power Plants.
5. Improve regional transmission system infrastructure to provide for the delivery of adequate, reliable and reasonably priced energy supplies and implement the transmission elements of state and local energy plans.

² This "G-1/N-1" standard requires a defined area system to withstand the simultaneous outage of its largest generating unit (G-1) and largest transmission interconnection (N-1), and be able to withstand the *next* most critical transmission outage without dropping load.

6. Obtain electricity generated by diverse fuel sources and decrease the dependence on increasingly scarce and costly natural gas.
7. Avoid, to the extent feasible, the taking and relocation of homes, businesses or industries, in the siting of the transmission line, substation and associated facilities.
8. Minimize the need for new or expanded transmission line ROW in urban or suburban areas of the SDG&E service territory already traversed by multiple high voltage transmission facilities and, to the extent feasible, assist in implementing local land use goals.

A.2.2 CPUC and BLM Objectives

Having taken into consideration the eight objectives set forth by SDG&E above, the CPUC and BLM identified the following three basic project objectives:

- Basic Project Objective 1: to maintain reliability in the delivery of power to the San Diego region.
- Basic Project Objective 2: to reduce the cost of energy in the region.
- Basic Project Objective 3: to accommodate the delivery of renewable energy to meet State and federal renewable energy goals from geothermal and solar resources in the Imperial Valley and wind and other sources in San Diego County.

A.2.3 Purposes of the Proposed Project

The application for the Proposed Project (A.06-08-010, formerly A.05-12-014) includes SDG&E's statement of the Purpose and Need. For informational purposes, a summary of the statement is copied here. SDG&E states that the Sunrise Powerlink Project would:

- **Maintain Reliability.** The project will enable the San Diego transmission system to satisfy the grid reliability requirements of the California Independent System Operator ("CAISO"). Without the project, SDG&E and the CAISO project a reliability deficiency in the San Diego area starting in 2010. The project will continue to allow SDG&E and other Load Serving Entities ("LSEs") within the San Diego service area to reliably serve their customers during periods of unusually high energy demand in the event of critical overlapping generation and transmission contingencies. Regulations, industry standards and good business practice require planning for the reliable operation of the electric transmission grid under adverse weather and system conditions.
- **Promote Renewable Energy.** Consistent with Senate Bill ("SB") 1078 and the State's Energy Action Plan ("EAP"), Sunrise will provide California consumers more economical access to the Imperial Valley, an area that is rich in renewable resource potential. Further, it will encourage the development of such resources thereby diversifying the State's resource mix and reducing its reliance on fossil-fueled generation. Similarly, Sunrise will also provide access for renewable wind resources development in the southeastern portions of San Diego County.
- **Reduce Energy Costs.** In addition to maintaining grid reliability and improving access to renewable energy resources, this cost-effective project will provide \$552 million per year in net energy savings for California electricity customers under normal operating conditions. These savings will come in the form of reduced energy costs and congestion savings resulting from increased access to lower cost sources of power in the desert southwest and reduced reliance on older, less efficient in-

area generation. All customers in the CAISO control area will share in these benefits. Indeed, the CAISO confirms that these benefits enable Sunrise to pay for itself (SDG&E, 2006a).

A.3 Procurement and Resource Adequacy

The CPUC reviews and approves plans for California's investor-owned utilities (IOU's) to purchase energy. The procurement and resource adequacy programs, described in Section A.3.1, establish policies and utility cost recovery for energy purchases; ensure that the utilities maintain a set amount of energy above what they estimate they will need to serve their customers (called a reserve margin); and implement a long-term energy planning process.

The CPUC also reviews and adopts IOU plans for obtaining renewable energy. Each California electrical company is required each year to obtain a minimum amount of electricity from renewable energy resources, with the goal of reaching procurement equal to 20 percent of total retail sales by 2010. These requirements are described in Section A.3.2.

A.3.1 CPUC Requirements for Procurement and Resource Adequacy

The CPUC oversees multiple proceedings related to procurement and resource adequacy³ by reviewing and approving plans made by the utilities to purchase energy and establishing policies and utility cost recovery for energy purchases. The aim is to ensure that the utilities maintain a set amount of available energy above the forecast levels needed to serve their customers (called a reserve margin), and to implement a long-term energy planning process.

In the December 16, 2004 CPUC Decision (D.) 04-12-048, the CPUC approved the long-term procurement plan (LTPP) submitted by SDG&E in July 2004 (R.04-04-003). SDG&E was found to have full resources through 2009, except for procuring sufficient renewables to meet the Renewable Portfolio Standard levels.

At a conceptual level, the proposed Sunrise Powerlink Project was included in the 2004 LTPP. The configuration approved by the CPUC as part of the 2004 LTPP included a new 500 kV line following a general east-west direction to interconnect the Imperial Valley Substation with SDG&E's existing 230 kV grid. Another north-south 500 kV line as proposed as part of the Lake Elsinore Advanced Pumped Storage Project (LEAPS) was also defined conceptually in the 2004 LTPP.

A new 2006 process for long-term procurement plans initiated with Rulemaking (R.) 06-02-013, which is the CPUC's effort to integrate its procurement policies with review of periodically updated procurement plans provided by the utilities. The LTPP proceeding is the successor to R.04-04-0031 and R.01-10-024. On July 20, 2006, the Commission adopted decisions D.07-06-029, which established a cost allocation methodology for new resource contracts, and D.07-06-031, which resolved additional resource adequacy implementation issues and further refined the definition of a standard tradable resource adequacy capacity product. On August 10, 2006, the Energy Division released the 2007 Resource Adequacy Guide and reporting templates.

³ Resource adequacy is defined as the ability of the electric system to supply the aggregate electrical demand and energy requirements of the customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements.

2004 Long-Term Resource Plan

SDG&E's 2004 long-term resource plan (LTRP) includes a summary of expected resources through 2014 and a strategy for achieving a balanced resource portfolio, renewables procurement, and transmission needs for this ten-year period.

According to the 2004 LTRP, California Department of Water Resources (CDWR) contracts will begin to expire in 2008 and beyond, and SDG&E will need additional energy resources. By 2011, approximately 25% of SDG&E's average year energy is expected come from resource additions, including additional renewable purchases, on- and off-system generation, and purchases from the additional import capability if additional transmission is secured via the SRPL. Cost-effective energy efficiency and demand response resources are expected to meet 10% of San Diego's peak capacity needs in 2014. By providing 20% of SDG&E's retail energy needs in 2010, renewable resources are estimated to meet roughly 10% of San Diego's total capacity need in that year, and 11% in 2014. Beginning in 2011, additional renewable and conventional generation will be needed, including additional on-system resources to meet grid reliability criteria, and a portion of the resource need created by load growth and expiration of the CDWR contracts.

By 2010, SDG&E's LTRP calls for an additional major transmission project to comply with ISO Grid Planning Criteria, displace existing high-cost Reliability Must Run (RMR) generation, provide for the potential retirement of aging local units, deliver additional renewable and conventional off-system generation, and supplant expiring CDWR contracts. SDG&E considers the bottleneck in meeting San Diego's future energy requirements with sufficient renewable energy sources to be lack of transmission capacity. The LTRP states that SDG&E's ability to meet the 20% renewables portfolio standard by 2010 (and 24% by 2014) is contingent upon additional transmission capacity between San Diego and renewable resource-rich areas.

2007-2016 Long-Term Procurement Plan

To help stabilize California's electricity markets during the energy crisis of 2000-2001, the Legislature passed, Assembly Bill (AB) AB1X 1 (2001 Cal. Stat., Ch. 4), which authorized CDWR to enter into long-term power purchase agreements. The intent of the legislation was to stabilize energy supplies and provide a creditworthy counterparty for entities that were willing to sign long-term contracts with California. The State procured power on behalf of the three IOUs from mid-January 2001 through December 31, 2002. As the IOUs continued to restore their financial strength and creditworthiness, the Legislature passed AB 57, which authorized the IOUs to resume procurement of electricity as of January 1, 2003, and to supplement the portfolio of CDWR contracts. AB 57 also required the CPUC to review and approve the procurement plans of the IOUs, set certain required elements for CPUC-approved plans, and guarantee recovery of costs for the IOUs when acting in accordance with their CPUC-approved procurement plan. AB 57 created a framework of upfront procurement standards and eliminated ex-post reasonableness reviews of procurement decisions.

SDG&E's long-term procurement plan (LTPP) includes a summary of its existing and contracted energy resources by year and by capacity. The LTPP reports on the utility's current and forecasted efforts toward meeting CPUC's goals of energy efficiency, demand response, renewables procurement, and distributed generation, and it makes a projection of the future portfolio's greenhouse gas (GHG) emissions. The plan discusses procurement risks and a plan for risk management, and identifies expected deficiencies in capacity for both peaking resources (250 MW in 2008) and base loading capacity (850-1,850 MW between 2010 and 2012).

A.3.2 California and CPUC Requirements for Procurement of Renewable Energy

Established in 2002 under Senate Bill 1078 (SB 1078, Sher, Chapter 516, Statutes of 2002) and accelerated in 2006 under Senate Bill 107 (SB 107, Simitian/Perata, Chapter 464, Statutes of 2006), California's Renewables Portfolio Standard (RPS) program requires obligated load serving entities (LSE) to procure an additional minimum of 1% of retail sales per year from eligible renewable sources until 20% is reached, no later than 2010. Executive Order S-3-05 (June, 2005) identified greenhouse gas emission reduction targets for the state, providing the impetus for a potential expansion of the RPS program to include a goal of 33% renewable energy by 2020. Currently, the CPUC is considering ways to achieve this 33% target.

The RPS program requires the CPUC to work collaboratively with the California Energy Commission (CEC) to implement the RPS. The CPUC is responsible for determining RPS compliance, based on IOUs' baseline deliveries as verified by the CEC. Under the RPS program, the CPUC has established:

- a process for determining market prices of electricity from renewable generators pursuant to specified criteria.
- a process for rank ordering and selection of least-cost and best-fit renewable resources to fulfill program obligations.
- flexible rules for compliance that permit electrical corporations to apply excess procurement in one year to subsequent years, or inadequate procurement in one year to the following three years.
- standard terms and conditions to be used by electrical corporations in contracting with renewable electricity generators.

Utilities are required to prepare renewable energy procurement plans that satisfy their obligations under the RPS, and the CPUC is required to review and accept, modify, or reject each electrical corporation's renewable procurement plan. The RPS program required CEC to certify eligible renewable energy resources, to design and implement an accounting system to verify compliance with RPS by retail sellers, and to allocate and award supplemental energy payments to cover above-market costs of renewable energy.

A variety of resources are considered eligible under the RPS statute: biomass, biodiesel, digester and landfill gas, municipal solid waste, fuel cells using renewable fuels, geothermal, small hydro, ocean thermal and wave, tidal current, solar thermal, photovoltaic, and wind. Unlike conventional generation, electricity from renewable sources must, for the most part, be generated at the fuel source itself.⁴ Because many of California's most promising undeveloped renewable resource areas are far from load centers, the CPUC considers planning and building new transmission facilities in California to be essential (CPUC, 2007). RPS requires the CPUC to deem necessary any CPCN application for the construction of new transmission facilities that are essential to facilitate achievement of the renewable power goals.

⁴ The main exception is power from biomass, for which fuel is transported to a power plant. Transporting biomass over long distances, however, is neither cost effective nor environmentally beneficial.

SDG&E's 2007 Renewable Procurement Plan

SDG&E's renewable energy procurement plan identifies pending renewable energy contracts, likely future renewable energy contracts, and barriers to fulfilling low-cost renewable energy needs on target. The plan also summarizes SDG&E's renewable energy credits.

As of August 2007, five pending renewable energy contracts in addition to existing contracts would increase the level of committed resources in SDG&E's overall renewable portfolio to approximately 12.2% in 2010 and to approximately 17.5% in 2014. Of the projects contracted from SDG&E's 2004 RFO and the projects in the 2005 and 2006 RFO short-lists, greater than 80% of the associated projected annual energy purchases are dependent in some way on new transmission to import the energy from Imperial Valley and eastern San Diego County. In addition to the above executed contracts, SDG&E is considering five offers under its 2007 RPS RFO for additional renewable resources in the Imperial Valley area; eastern San Diego County; Yuma, Arizona; and Mexico. These possible contracts have the potential to add in excess of 400 MW of new renewable resources.

Since 2003, SDG&E has taken advantage of the RPS flexibility mechanism that allows banking of renewable energy credits (REC). SDG&E estimates a REC bank balance of 971,967 Megawatt Hours (MWH) at the end of 2007. In the event that resources do not deliver as contracted, SDG&E's banked RECs will be used to help make up any shortfall in meeting renewable energy targets.

A.4 SDG&E's Electric Transmission System

This section describes the electricity system (generation and transmission) in SDG&E's service territory as background for understanding the context of the proposed Sunrise Powerlink Project. SDG&E has an obligation to reliably serve all of San Diego County and part of southern Orange County. SDG&E's customer demand is served by the combination of internal generating resources and imported capacity.

A.4.1 Local Generation, Load, and Import Capability

Generation in SDG&E Service Area

Existing local generating resources include the Palomar Energy Facility (connected into SDG&E's 230 kV grid), the Encina Power Plant (connected into SDG&E's grid at 138 kV and 230 kV), the South Bay Power Plant (connected at 69 kV and 138 kV), a number of combustion turbine (CT) facilities connected at 69 kV, and one 50 MW wind generation facility connected to the 69 kV grid. SDG&E is also a co-owner (approximately 20 percent share) of the San Onofre Nuclear Generating Station (SONGS) Units 2 & 3, which have a combined rated output of 2,150 MW, although this is not considered to be within the SDG&E system.

The mix of generating resources changes as new power plants are built and older or inefficient units are retired. SDG&E has signed Power Purchase Agreements (PPAs) for the following:

- The 561 MW Otay Mesa Generating Project, under construction in the southern portion of the service territory
- The 300 to 900 MW Stirling Energy Systems Solar Project⁵
- Two 49.4 MW Bethel Solar I and II Solar Thermal Projects⁶
- The 20 MW Bull Moose Biomass Project⁷
- The 20 MW Esmeralda–San Felipe Geothermal Project⁸
- The 40 MW Lake Hodges Pumped Storage Project.

For purposes of long-term resource planning, SDG&E assumes that the existing South Bay Power Plant will be shut down after 2009 because of the expiration of its lease with the Port of San Diego.

Power Imported to SDG&E Service Territory

The SDG&E service territory is currently served by one 500 kV circuit that imports electricity from the Imperial Valley, Arizona, and Mexico between the Imperial Valley and Miguel Substations. The existing 500 kV lines serving the San Diego area is called the Southwest Powerlink (SWPL). Five 230 kV lines south of San Onofre Nuclear Generating Station provide San Diego's only other connection to the remainder of the U.S. grid. Two 230 kV lines interconnect with Mexico, and one 230 kV line interconnects with the Imperial Irrigation District, but SDG&E does not rely upon imports over these connections because they occur outside of CAISO control.

The SWPL provides a transmission path from the Yuma and Palo Verde areas of Arizona. The SWPL is owned jointly by SDG&E, Arizona Public Service (APS), and the Imperial Irrigation District (IID). This existing facility delivers power from nuclear and natural gas fired generation facilities at the Palo Verde hub, a major generation center about 50 miles southwest of Phoenix.

Import capability into the San Diego area is often fully subscribed. When the SWPL was built in 1983, the peak demand in the SDG&E service area was 2,069 MW. In 2005, the SDG&E service area recorded a peak demand of 4,058 MW. On July 22, 2006, SDG&E's service area recorded a new all time peak of 4,502 MW (SDG&E, 2006a).

Today, SDG&E's ability to reliably import is defined by two transmission import boundaries or constraints: the SDG&E simultaneous import limit (SIL) and non-simultaneous import limit (NSIL).⁹ The SIL, currently rated at 2,850 MW, is defined by SDG&E's ability to import power into its system at the Miguel Substation with the five 230 kV lines that make up the "South of SONGS" path (or Path 44). The 2,850 MW SIL limit applies when all transmission facilities are in operation. When

⁵ See CPUC Resolution E-3965, December 15, 2005. Procurement of this renewable power is made contingent on SDG&E being able to license and construct a new 500 kV line from the Imperial Valley area to San Diego by 2010.

⁶ See CPUC Resolution E-4073, March 15, 2007

⁷ See CPUC Resolution E-4073, March 15, 2007

⁸ See CPUC Resolution E-4073, March 15, 2007. This project is predicated on the completion of Sunrise Powerlink. However, if delays in completion of Sunrise look likely in 2008, a congestion cost analysis will determine the cost-effectiveness of delivering via some other pathway.

⁹ The simultaneous import limit (SIL) is with all lines in-service (N-0), and the non-simultaneous import limit (NSIL) occurs under the combined contingency of the most-limiting transmission line out of service and the most limiting generator out of service (the N-1/G-1 condition). The NSIL is used for reliability grid planning analysis.

SWPL is out of operation, the NSIL is 2,500 MW. Local generation must be used to make up any deficit between the import limits and load.

The Sunrise Powerlink Project would greatly expand the import capability for SDG&E. The Proposed Project would increase SDG&E's simultaneous import limit from 2,850 MW to 4,200 MW, and the non-simultaneous import limit would increase from 2,500 MW to 3,500 MW.

A.4.2 San Diego Area Transmission Planning Studies

SDG&E has been investigating contribution of a new 500 kV line into San Diego County for a number of years. Numerous options have been outlined and analyzed in previous studies or proceedings that are identified below.

SDG&E Valley-Rainbow 500 kV Interconnect Project

On March 23, 2001, SDG&E submitted Application (A.) 01-03-036 seeking authorization by the CPUC for a CPCN for the Valley to Rainbow 500 kV Interconnect Project. The Valley-Rainbow Project was proposed to provide an interconnection between SDG&E's existing 230 kV transmission system at the proposed Rainbow Substation on Rainbow Heights Road near the unincorporated community of Rainbow in San Diego County and Southern California Edison's (SCE) existing 500 kV transmission system at the Valley Substation on Menifee Road in the unincorporated community of Romoland in Riverside County. An application was also filed with BLM and preparation of a joint EIR/EIS was started.

The Valley-Rainbow Project was proposed to provide the transmission capacity necessary to reliably meet regional loads (San Diego and southern Orange Counties) should regional internal generating capacity be insufficient to meet regional demand. At the time, the CAISO identified a potential need for development of additional transmission capacity into the San Diego region from the greater southwestern U.S. The CAISO further indicated that in order for this new capacity to be useful in meeting the overall needs of the State, it would be necessary to increase current transmission transfer capability from the San Diego region to the remainder of the State.

Concurrently with consideration of SDG&E's need for the Valley-Rainbow Project, the CPUC's Administrative Law Judge Cooke (ALJ) also guided the CEQA/NEPA process, as part of the CPCN proceedings. In a ruling dated October 21, 2002, ALJ Cooke directed the CPUC Energy Division to prepare and file a document that provided a preliminary alternatives feasibility analysis based on the environmental information developed between March 2001 and the document's publication date of November 2002.

The Valley-Rainbow Project would have established a new utility corridor, which resulted in substantial controversy and public concern. Numerous alternatives to Valley-Rainbow were raised by the general public, elected officials and federal, state and local agencies, and the EIR/EIS team. In total, the alternatives screening process for the Valley-Rainbow project culminated in the identification and screening of approximately 45 alternatives. These alternatives ranged from minor routing adjustments to SDG&E's proposed 500 kV transmission line location, to alternative system voltages, system designs and routing options that have been under consideration in other parts of San Diego, Riverside, Orange, and Imperial Counties, as well as non-wires alternatives, like generation.

Opponents to the project argued that the project was not needed. The CPUC performed an independent evaluation of project need for reliability purposes and economic benefit to ratepayers and California. In Decision (D.) 02-12-066, the CPUC denied SDG&E's request for a CPCN for the project stating that based on the evidence, SDG&E would not experience a capacity deficiency within the adopted five-year planning horizon for the project. Based on the record, the CPUC concluded that "SDG&E will continue to meet established reliability criteria under conservative supply and demand forecasts within the adopted five-year planning horizon." The CPUC also evaluated whether Valley-Rainbow would provide positive economic benefits, and the decision stated that the evidence showed that the project would not be cost-effective to ratepayers except under a set of extreme assumptions. Decision D.02-12-066 was the first decision by the CPUC since the creation of the CAISO in 1998 in which the CPUC denied a CPCN for a project that the CAISO Governing Board had determined to be necessary.

As a result of D.02-12-066, the EIR/EIS was never completed and the Valley-Rainbow transmission line was not constructed. However, the alternatives developed as part of the alternatives screening process and published in the interim preliminary report on the Valley-Rainbow alternatives are considered in Section C and Appendix 1 of this EIR/EIS as possible alternatives for the Sunrise Powerlink Project.

San Diego Regional Energy Strategy 2030

The San Diego Regional Energy Strategy (RES; SDREO, 2003) was adopted as the energy component of the Regional Comprehensive Plan (the long-term development plan for the San Diego region) by the San Diego Association of Governments (SANDAG) in 2003. The RES calls for 40% of the electricity supply to be met by renewable resources by 2030, and of these, 50% should come from resources within San Diego County.

The RES identifies the production of in-county electrical generation as being of a higher priority than the importation of electricity via transmission; however, the Strategy identifies goals to guide decisionmaking on electrical projects, including transmission projects. Of the nine stated goals, five apply to electricity supply:

- GOAL 2: Achieve and maintain capacity to generate 65% of summer peak demand with in-county generation by 2010 and 75% by 2020.
- GOAL 3A: Increase the total electricity supply from renewable resources to 15% by 2010 (~ 740 MW), 25% by 2020 (~ 1,520 MW) and 40% by 2030 (~ 2,965 MW).
- GOAL 3B: Of these renewable resources, achieve 50% of total renewable resources from resources located within the County (~ 370 MW by 2010, ~ 760 MW by 2020, and ~ 1,483 MW by 2030).
- GOAL 4: Increase the total contribution of clean distributed generation resources (nonrenewable) to 12% of peak demand by 2010 (~ 590 MW), 18% by 2020 (~ 1,100 MW) and 30% (~ 2,225 MW) by 2030.
- GOAL 5: Increase the transmission system capacity as necessary to maintain required reliability and to promote better access to renewable resources and low-cost supply.

SDG&E's estimate of peak load having a 10 percent chance of occurrence in 2010 is 5,038 MW (the 90/10 peak loads are shown in Appendix III of the December 2005 SRPL Purpose and Need). According to Goal 2, above, the region would need to have in-county capacity to generate 3,275 MW. In order to meet this goal by 2010, available in-county generation must include operation of large generators that either do not exist today or are slated for retirement. The pending development of the

Otay Mesa power plant and continued operation or re-powering of both South Bay and Encina power plants would be necessary to bring in-county generation over 3,275 MW by 2010 (see Table III-4 of December 2005 SRPL Purpose and Need).

SDG&E states that the SRPL would aid delivery of 300 MW of solar thermal power presently under contract between SDG&E and Stirling Energy Systems, which would represent a substantial portion of the SDREO's 740 MW target, stated in goal 3A above. Also, the SRPL project could facilitate future interconnection of renewable resources located east of the County or within central or eastern San Diego County, in accordance with goal 3B above. The SRPL PEA highlights the project's consistency with goal 5, above.

CEC/CPUC State Energy Action Plan II (EAP II) and CEC Integrated Energy Policy Report (IEPR)

California's Energy Action Plan II (EAP II) was prepared by the CPUC and CEC and adopted on September 21, 2005. Under the EAP II, the State's energy agencies jointly adopted the goal "for California's energy to be adequate, affordable, technologically advanced, and environmentally sound."

The agencies developed a priority sequence that utilities are to follow in their efforts to meet forecasted energy needs. This "loading order" identifies implementation of cost-effective energy efficiency measures, followed closely by implementation of demand response programs, as the State's preferred means and leading effort toward addressing future energy requirements. Renewable sources of power were identified as a third priority, and the agencies noted that the bulk electricity transmission grid and distribution facility infrastructure must be improved concurrently to support interconnection of renewable generation.

Like the EAP II, the CEC's November 2005 Integrated Energy Policy Report (IEPR) identified implementation of energy efficiency and demand response programs as being the State's most promising strategies to achieve energy savings, cost reduction, and load management. The IEPR recognized California as a national leader in the development of diverse renewable resources and marked development of renewables as a third important strategy for meeting the state's energy requirements, yet identified the RPS procurement process as being overly complex and cumbersome to the point of potentially impeding the state's ability to achieve its renewable energy goals. The IEPR proposed to simplify, streamline, and expedite the state's RPS process, and further proposed to establish simple rules to allow limited trading of renewable energy certificates.

The IEPR noted that the state lacks a well-integrated transmission planning and permitting process that considers both generation and transmission needs, evaluates non-wires alternatives, plans for transmission corridors well in advance of need, and allows access to essential renewable resource areas in the state. The report identified a lack of investment in the new transmission infrastructure needed to access remotely located renewable resources in the Tehachapi and Imperial Valley areas. Without this investment, the CEC concluded, it will be difficult for California to meet its RPS goals.

Southwest Transmission Expansion Plan

An informal, voluntary sub-regional transmission planning group was formed in 2002 to address transmission concerns across the southwest and develop the Southwest Transmission Expansion Plan (STEP). The STEP group included transmission and generation stakeholders in Arizona, Nevada, and southern California and was sponsored by California Independent System Operator (CAISO) and Arizona Public Service (APS). STEP provided a forum for interested parties to participate in the planning, coordination, and implementation of the transmission system between Arizona, Nevada, Mexico, and southern California.

The STEP group finalized its studies with a report in March 2004. The broad scope of the STEP group provided a forum for discussing expansion of the transfer capability across the Colorado River between Arizona, southern Nevada, and California. The STEP report identified numerous options for upgrading these transmission paths. Part of this work included the corridor that extends from the Palo Verde hub of generators in western Arizona to the urban load center of San Diego. The STEP report gave an outline for improvements around the Miguel Substation area and for a new line into San Diego. Among the options for a new line into San Diego were adding a second circuit to the existing Southwest Powerlink (i.e., Imperial Valley–Miguel 500 kV #2), expanding the transmission grid in Mexico, interconnecting SDG&E with SCE in Riverside County (e.g., via Valley-Rainbow), and creating a new corridor from the Imperial Valley Substation to a point in central or northern San Diego County.

SDG&E Transmission Comparison Study

SDG&E prepared a Transmission Comparison Study (TCS) to refine the findings of the STEP group report. This study evaluated a variety of transmission alternatives for the Sunrise Powerlink Project. SDG&E performed the background research. STEP's Technical Working Group then reviewed the work, provided input, and helped in the process of developing and selecting alternatives. This evaluation was completed in October 2005, and SDG&E concluded the report with a recommendation to pursue a new 500 kV line between the existing Imperial Valley and a new Central Substation.

A.4.3 Imperial Valley Study Group

The Imperial Valley Study Group (IVSG), formerly known as the Salton Sea Study Group (SSSG), was a voluntary planning collaborative group for the Imperial Valley area that was created under a policy directive from the CPUC (as a result of D.04-06-010 under Proceeding I.00-11-001). It was also supported by initiatives at the California Energy Commission related to the 2005 Integrated Energy Policy Report proceeding. The IVSG was formed to recommend a phased plan for developing the transmission necessary to export 2,200 MW of renewable geothermal and solar generation from the Imperial Valley to urban coastal load centers. Alternative solutions were created from IID's proposed Green Path initiative and SDG&E's concurrent Transmission Comparison Study for a new 500 kV connection to San Diego. Independent of the IVSG, the Los Angeles Department of Water and Power (LADWP) was also conducting transmission planning activities to access Imperial Valley geothermal resources (known as Green Path North; note that a description of the Green Path Project is provided in Section A.4.4 below), and the IVSG report notes LADWP's plans. The IVSG development plan was released in September 2005, and it aimed to represent the consensus recommendation of the stakeholder participants in the study group, who included the regional transmission owners, CAISO, CPUC, CEC, generation developers, local, state and federal agencies, environmental and consumer groups and other interested parties.

The IVSG transmission plan consists of three development phases, designed to provide market access for 2,200 MW of renewable resources, primarily geothermal and solar, in the Imperial Valley region:

- *Phase 1* of the IVSG development plan was to accommodate three new geothermal plants producing 645 MW by the end of 2010. Upgrades of the IID transmission system would be required from its Highline Substation to El Centro Substation (approximately 20 miles), and from El Centro to the Imperial Valley Substation (approximately 18 miles), where the power would be delivered to the CAISO grid. The upgrades within IID territory are now known as part of the Green Path Coordinated Projects. The other major component of the IVSG's Phase 1 was a new 500 kV line from the Imperial Valley Substation to San Diego County, with 230 kV connections to SDG&E's load

center.¹⁰ IVSG studies established that a line from the Imperial Valley Substation to San Diego County would make Imperial Valley generation deliverable to load centers in San Diego and to other load centers in Southern California and to the north.

- *Phase 2* of the IVSG development plan was to accommodate an additional three geothermal plants producing an additional 645 MW of incremental generation, bringing the cumulative new export capacity total to 1,290 MW by approximately the end of 2016. The Phase 2 upgrades were also to provide market access for Concentrating Solar Power (CSP) generation projects, and/or other renewable generation projects developed in that timeframe.¹¹ Phase 2 would upgrade IID's existing El Centro–Avenue 58 transmission line, from its El Centro Substation to its planned Bannister Substation west of the Salton Sea geothermal field. IID would also construct a new 230 kV line from the Bannister Substation to a new San Felipe 500/230 kV Substation to interconnect to the proposed Imperial Valley to San Diego 500 kV line. This San Felipe Substation could potentially provide an additional interconnection between the IID and CAISO systems, and thus another point for the delivery of renewable resources to Southern California loads. IID would construct, own and operate these upgrades.
- *Phase 3* of the IVSG development plan was to make an additional 910 MW of Imperial Valley generation deliverable to the CAISO grid, bringing cumulative incremental export capacity to 2,200 MW in 2020. As with Phases 1 and 2, the plan expects that most of the new Imperial Valley generation would be scheduled to SDG&E, to minimize congestion at the existing Devers Substation. Additional upgrades of the IID transmission system would support delivery of renewable resources through the Coachella Valley to the SCE 230 kV system at Mirage or Devers Substations.

The IVSG first identified a range of transmission alternatives capable of exporting 2,200 MW of new generation from the Imperial Valley area to regional load serving entities. An initial power flow screening analysis led the group to select three of these alternatives for an additional, and extensive, study. Power flow, voltage stability, and post-transient studies considered single and double contingencies at key facilities in the region. Production simulations were performed to estimate the savings in production cost, and the impact associated with congestion on major lines should 2,200 MW of new generation be added. To determine the optimal means of phasing this development, the IVSG re-studied the upgrades required for delivering new generation in smaller increments. The IVSG concluded that the Sunrise Powerlink Project, in Phase 1 of the recommended transmission development plan, could provide enough capacity for all three phases of the IVSG development even though Phases 2 and 3 of the development plan would likely be built several years after the Sunrise Powerlink Project.

CAISO Southern Renewables Transmission Planning (CS RTP)

The California Independent System Operator (CAISO) conducted an independent review of the “Sun Path Project” in 2006. The Sun Path Project was a combination of the SDG&E Sunrise Powerlink with facilities in the IID territory that make up part of the Green Path Coordinated Projects. With these upgrades combined into “Sun Path,” CAISO made the following findings (CAISO, 2000a):

- Sun Path facilitates compliance by SDG&E and other California utilities with the RPS by providing access to the CAISO control area for planned renewable resources in the Salton Sea and other areas in Imperial Valley area without curbing economic imports to California

¹⁰ This component of IVSG Phase 1 is the proposed Sunrise Powerlink Project.

¹¹ CSP generation contemplated in IVSG Phase 2 would be the Stirling Energy Systems Solar Two project.

- Sun Path Project provides positive net economic value for the CAISO ratepayers as its benefit outweighs its cost
- Sun Path Project solves San Diego's known import limit reliability problem for 2010 and beyond without introducing any new reliability concerns.

CAISO Board Approval

On August 3, 2006 the CAISO Board of Governors approved Sun Path as a necessary and cost effective upgrade to the CAISO Controlled Grid and a mechanism for compliance with California renewable energy purchase requirements (CAISO, 2006). The CAISO Board directed SDG&E to proceed with the permitting and construction of the transmission project, with a preference for completion by summer 2010. Staff of CAISO has participated throughout early 2007 in the CPUC proceeding for the SRPL to provide updated testimony on economic and reliability assessment.

A.5 Renewable Energy in the Imperial Valley

A.5.1 Geothermal Resources

Geothermal resources are underground reservoirs of hot water or steam created by heat from the earth. These resources can be accessed by wells, and the heat energy can be used for generating electricity or for other direct uses (BLM, 2007). The potential for geothermal resources development in the Imperial Valley is considered to be high. Current estimates are that geothermal potential in Imperial Valley could reach 2,300 MW. Today approximately 450 MW of geothermal resources are developed and operating. The development of these resources will depend in part upon the ability of the developers to cost-effectively access other markets outside of the Imperial Valley area to sell the output of future projects.

The BLM has proposed to lease geothermal resources in the Truckhaven Geothermal Leasing Area (TGLA) in Imperial County. The proposed action area encompasses 40,320 acres, of which 14,731 acres are Federal minerals managed by the BLM. The BLM has determined that the Truckhaven leasing program has a reasonably foreseeable development of 50 MW (net) of geothermal generation in the form of two 25 MW power plants (BLM, 2007). Because the SRPL would be located immediately adjacent to the TGLA, if built, the SRPL would increase transmission capacity for geothermal energy generated in the TGLA.

On March 15, 2007 the CPUC approved a 15-year Power Purchase Agreement (PPA) allowing SDG&E to purchase geothermal electricity generated from a proposed Imperial Valley geothermal project (CPUC, 2007a). The Esmeralda-San Felipe project is a 20 MW geothermal project in the Imperial Valley that is expected to come online in December of 2010.

The Esmeralda-San Felipe geothermal project is predicated on the completion of the SRPL, and is considered in this EIR/EIS as a "connected action" under NEPA (see Section B.6.3). However, if delays in completion of the Sunrise Powerlink Project appear to be likely in 2008, SDG&E will perform a congestion cost analysis by December 31, 2008 to determine if it is cost-effective to take deliveries via some other transmission pathway.

A.5.2 Solar Resources

A.5.2.1 Stirling Energy Systems

A 20-year PPA was approved by the CPUC on December 1, 2005 (CPUC, 2005), allowing SDG&E to purchase solar electricity from a proposed Imperial Valley solar electricity generation facility. Under the terms of the PPA, SDG&E will purchase solar electricity generated at a proposed Imperial Valley solar field owned by SES Solar Two LLC, an affiliate of Arizona-based Stirling Energy Systems, Inc (SES). SES and SDG&E have agreed to an initial 20-year contract to purchase all of the output from a 300 MW solar power plant, which consists of 12,000 Stirling solar dishes on approximately three square miles (2,000 acres) in the Imperial Valley.

SDG&E also has options to purchase power from two 300 MW future phases of the project. The three project phases would total 900 MW of generation capacity. While SDG&E has stated that the power generated from Phase 1 of the project could be transmitted using existing capacity in the existing Southwest Powerlink transmission line, all phases of the project are described as being contingent upon the construction of new transmission facilities. For all three phases SES has proposed approximately 36,000 solar concentrating dish systems to be installed in an area of between 6,000 and 7,000 acres. Related structures include a 230 kV transmission line to connect the facility to the existing Imperial Valley (IV) Substation and associated access roads, telecommunications facilities, operations and maintenance building, and water well. Each phase is covered by a separate contract. SES is required to have 300 MW in operation by December 31, 2010 in order to be in compliance with the Confirmation Letter (contract) for Phase 1.

To date, SES has not submitted a complete application to the BLM for the Stirling Solar project. SES anticipates filing an Application for Certification with the California Energy Commission (CEC) by November 2007. As of September 2007, SES consultants were undertaking biological, cultural resource, and geotechnical surveys, performing aerial and contour mapping of the area, and preparing a land use permit (SES, 2007). SES filed a Plan of Development with the BLM on September 5, 2007 but a complete application has not yet been filed. As with the Esmeralda–San Felipe geothermal facility described above, the Stirling Solar project is considered a “connected action” under NEPA (40 C.F.R. 1508.25(a)(1)) since it is dependent on the Proposed Project or one of the route alternatives being constructed. The Stirling project as a “connected action” together with the Sunrise Powerlink Project is described in Section B.6.1 and impacts are analyzed in each part of Section D of this EIR/EIS.

A.5.2.2 Other Imperial Valley Solar Projects

Bethel Solar 1 & 2 are two Imperial Valley solar electricity projects that would each provide 49.4 MW of capacity. Bethel Solar 1 would come online in June of 2008, and Bethel Solar 2 would come online in September 2009 (SDG&E, 2006b). Both projects propose to deliver power to the IV Substation and utilize existing transmission lines to transmit power to San Diego; however, power would be transmitted over the SWPL 500 kV Transmission Line. Bethel 1 and 2 are not dependent on the SRPL, although SRPL would provide access for future solar projects.

A.5.3 Green Path Coordinated Projects

The Green Path Coordinated Projects proposal involves a tri-party agreement between Imperial Irrigation District (IID), the Los Angeles Department of Water and Power (LADWP) and Citizens Energy. The project would connect generation in the Imperial Valley to SDG&E, Southern California Edison

(SCE), the Western Area Power Administration, and generation in Arizona. There are several components to this project (see Alternatives Screening Report, Appendix 1 to this EIR/EIS, Section 2.6). One of the components would be located in the same ROW as the Southwest Powerlink between the Imperial Valley Substation and a future San Felipe Substation. On November 23, 2005, IID submitted a notification letter to the Planning Coordinating Committee and the Technical Studies Committee initiating the WECC Regional Planning Project Review Process. The timing in which IID would proceed with plans to process the project for approval with the CAISO and proceed into the CEQA and NEPA processes is not known. However, a portion of the 230 kV upgrades and the San Felipe Substation are considered to be connected to the completion of the Sunrise Powerlink Project.

A.6 Agency Use of This Document

The proposed SRPL would cross federal, State, and private lands. A portion of the proposed Sunrise Powerlink 500 kV and 230 kV transmission line would be constructed within or adjacent to existing SDG&E and IID ROW located on federal, state, and private lands.

SDG&E has submitted an application and PEA to the CPUC for a CPCN for the project. In consideration of this application, the CPUC, in conjunction with the BLM, has prepared this EIR/EIS to evaluate the potential environmental impacts of the Proposed Project. SDG&E has also submitted an application to the BLM for a ROW Grant and, if approved, the BLM would issue a ROW Grant, allowing construction to be administered by the BLM on federal lands. Thus, the CPUC would conduct permitting processes for the State, while the BLM would conduct permitting on federal land.

A total of 32.6 miles of the Proposed Project would be on lands managed by the BLM under the jurisdiction of the El Centro Field Office, and an additional 0.24 miles on BLM lands under the jurisdiction of the Palm Springs Field Office. In addition to approving a ROW grant, because the proposed route deviates from designated utility corridors, the BLM would need to amend both the California Desert Conservation Area Plan (CDCA Plan, as amended) and the Eastern San Diego County Resource Management Plan (RMP; see Plan descriptions in Section D.17.1.1 and Plan amendment processes in Section D.17.2.1).

A.6.1 CPUC Process

Pursuant to Article XII of the Constitution of the State of California, the CPUC is charged with the regulation of investor-owned public utilities, including SDG&E. The CPUC is the lead State agency for CEQA compliance in evaluation of SDG&E's proposed SRPL Project, and along with BLM has directed the preparation of this EIR/EIS. In this role, the CPUC is responsible for compliance with CEQA and for coordinating with other State and local agencies that will use this EIR/EIS in their permitting processes. The permitting process of the Anza-Borrego Desert State Park is described in Section A.6.3.1.

This EIR/EIS will be used by the Commission, in conjunction with other information developed in the Commission's formal record, to act on SDG&E's application for a Certificate of Public Convenience and Necessity (CPCN) for construction and operation of the Proposed Project. Under CEQA requirements, the CPUC will determine the adequacy of the Final EIR/EIS and, if adequate, will certify the document as complying with CEQA. The CPUC will also act on SDG&E's application for a CPCN. If it approves a project with significant and unmitigable environmental impacts, it must find that specific benefits of the project outweigh such impacts and adopt a "Statement of Overriding Considerations," which would be included in the Commission's decision on the application.

The CPUC has assigned Administrative Law Judge (ALJ) Steven Weissman to oversee the hearings on the Proposed Project, and Commissioner Dian Grueneich is the Assigned Commissioner for the CPCN application. The Notice of Preparation (NOP) describing the Proposed Project was published on September 15, 2006. The ALJ's Proposed Decision, and the Evidentiary Hearings, will cover issues of project need, project cost, and other considerations. The CPUC expects a final decision from the Commission in January 2008.

A.6.2 BLM Process

The BLM is the federal Lead Agency for the preparation of this EIR/EIS in compliance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulation for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and the BLM NEPA Handbook (H-1790-1). NEPA mandates that federal agencies consider the environmental consequences of a wide variety of proposed actions. When the federal agency determines that a proposed action may "significantly affect the quality of the human environment," an EIS is required (42 U.S.C 4332 (2)(c)). The Proposed Project would traverse BLM-administered land and SDG&E has applied for a ROW Grant from BLM to implement the project. The issuance of a ROW Grant is considered a "federal action" as defined by NEPA, and a ROW application triggers the NEPA process.

As a component of the ROW Grant permitting procedure, the Proposed Project and several route alternatives would also require an amendment to BLM's *California Desert Conservation Area Plan* (as amended) and/or to the *Eastern San Diego County Resource Management Plan* (RMP) because the route alignments would deviate from BLM designated utility corridors in several areas. Section D.17 of this EIR/EIS describes the BLM plans and the requirement for BLM plan amendments resulting from the Proposed Project and some route alternatives.

The BLM may use a single land use planning/NEPA process to make both land use plan (plan amendment) and implementation (ROW Grant) decisions, provided both types of decisions are adequately addressed with the appropriate level of NEPA analysis. This EIS will serve as a guide for BLM decisionmaking on whether to amend the land use plans, and whether to approve a ROW Grant, steps required for implementation of the Proposed Project. See Section A.6.3.1 for a summary of State Parks jurisdiction around the existing BLM ROW grant in Anza-Borrego Desert State Park.

Once approved internally, the Draft EIR/EIS will be printed, filed with the Environmental Protection Agency (EPA), and distributed to individuals, organizations and agencies for review and comment. EPA will publish a notice of filing in the Federal Register. The date the EPA notice appears in the Federal Register initiates a 90 days public comment period. The BLM will publish a Notice of Availability (NOA) as well, which contains information about the project, comment period, contact information, and other supplemental information.

Following agency approval of its release, the final EIR/EIS will be printed, filed with EPA, and distributed to the public. The BLM publishes a NOA as well, which contains information about the project, protest period and filing instructions, contact information, and other supplemental information not contained in the EPA's NOA. The final EIR/EIS must be made available to the public for a minimum of 30 days prior to issuing a record of decision (ROD). The publication of EPA's NOA in the Federal Register initiates the 30 days availability period.

At the decisionmaking stage, the BLM must clearly distinguish the land use plan decision from the implementation decision and describe the administrative remedies for both. Generally, the proposed land use

plan may be protested to the BLM Director within the 30 days availability period. The ROD cannot be issued until protests are resolved. The decision regarding the ROW grant is appealable to the Interior Board of Land Appeals upon issuance of a ROD. Specific guidance will be provided at the appropriate stage of the EIS process.

The BLM expects to make decisions on the Sunrise Powerlink EIS and proposed land use plan amendment(s) in mid-2008. No action concerning a proposal may be taken until the ROD has been issued.

A.6.3 Approval Processes of Other Government Agencies

Several other State and federal agencies will rely on information in this EIR/EIS to inform them in their decisions regarding issuance of specific permits related to project construction or operation. In addition to the CPUC, State agencies such as the California Department of Parks and Recreation, the Department of Transportation, Department of Fish and Game, Regional Water Quality Control Board, and Office of Historic Preservation would be involved in reviewing and/or approving the project. Federal agencies with potential reviewing and/or permitting authority, in addition to the BLM, include the U.S. Department of Agriculture (USDA) Forest Service, U.S. Fish and Wildlife Service (USFWS), Advisory Council on Historic Preservation, Department of Defense – Marine Corps Air Station (MCAS) Miramar, and the Bureau of Indian Affairs (BIA). The Forest Service, the BIA and MCAS Miramar have accepted BLM's offer to be Cooperating Agencies in this EIR/EIS under NEPA.

No local discretionary permits are required, since the CPUC has preemptive jurisdiction over the construction, maintenance, and operation of SDG&E facilities. SDG&E would still have to obtain all ministerial building and encroachment permits from local jurisdictions, and the CPUC's General Order 131-D requires SDG&E to comply with local building, design, and safety standards to the greatest degree feasible to minimize project conflicts with local conditions. The CPUC's authority does not preempt special districts, such as the South Coast Air Quality Management District, or other State agencies or the federal government.

A.6.3.1 California State Parks – Anza-Borrego Desert State Park

The Proposed Project would pass through Anza-Borrego Desert State Park (ABDSP) for an approximate distance of 22 miles. Although SDG&E has an existing ROW for its 69 kV transmission line through the Park, the Proposed Project could not be constructed within the existing easement because of its narrow width (100 feet or less), and therefore additional ROW would be required in order to construct the project as proposed. However, this EIR/EIS also evaluates an alternative that would remain within the existing ROW.

The existing 69 kV easement is bordered by State designated Wilderness Areas including: Vallecito Mountains Wilderness Area, Pinyon Ridge Wilderness Area, and Grapevine Mountain Wilderness Area. Expansion of the 69 kV easement into the designated Wilderness Areas would require an amendment to the ABDSP General Plan in order for the Proposed Project to be carried forward. Expansion beyond the existing easement in the area designated Backcountry Zone in the ABDSP General Plan would also require a General Plan amendment for the Proposed Project to be carried forward. Current land use policy for ABDSP is detailed in the Final General Plan and Environmental Impact Report (SCH #2002021060) dated February 11, 2005. Sections D.16 and D.17 further describe the ABDSP General Plan and necessity for plan amendment if the Proposed Project and some route alternatives are approved.

A.6.3.2 U.S. Department of Agriculture (USDA) Forest Service

The Proposed Project alignment does not traverse National Forest System lands, and would not require Forest Service approval to be carried forward. However, several identified route alternatives do traverse the Cleveland National Forest: the Interstate 8 Alternative, the Route D Alternative, the Modified Route D Alternative, the BCD Alternative, and the CNF Existing ROW Alternative. Any of these alternatives would require approval through a Special Use authorization from the Forest Service. These alternatives would each require different modifications of the existing Cleveland National Forest Land Use Management Plan (“Forest Plan”) in order to be constructed, maintained, and operated on Cleveland National Forest lands. See Section C for a description of alternatives. Section D.17 describes the Forest Service plan and necessity for the Forest Service plan amendments resulting from the route alternatives.

Pursuant to the Federal Land Policy and Management Act (FLPMA) of 1976 (as amended), the Forest Service’s need for action would be to respond to an application from SDG&E for a Special Use authorization to construct, maintain, and use a transmission line (and ancillary improvements) through the Descanso, Palomar, and Trabuco Ranger Districts of the CNF. The FLPMA provides the authority to the Secretary of Agriculture (Forest Service) to issue, renew, or grant authorizations to occupy, use, or traverse NFS lands for the generation, transmission, and distribution of electrical power (43 U.S.C. 1761). Proposals are screened using the criteria established by the regulations at 36 CFR 251.54. If an alternative that uses NFS lands is selected, SDG&E would need to propose that alternative to the Forest Service for consideration. If the proposal passes the screening criteria, the FS would accept an application for the use. One of the primary screening criteria is consistency with the 2005 Cleveland National Forest Land Management Plan (LMP). Proposals are suitable if they are consistent, or can be made consistent through mitigation and design factors, with the applicable LMP standards. If it is uncertain if a proposal can be made consistent with the LMP, but the proposal otherwise meets the criteria and is in the public interest, it may be accepted and evaluated as a formal application. Processing the proposal is not subject to NEPA.

Should the proposal be accepted as a formal application for a special use authorization, the Forest Service must comply with NEPA in order to consider issuance of the authorization (permit) to allow construction of the route alternatives. Preparation of an EIS is required if an alternative on NFS land is selected, and after the completion of the Final EIR/EIS, the Forest Service would issue a Record of Decision (ROD). The ROD would document the Forest Service decision on whether to authorize a Special Use Permit (and possibly a Special Use Easement and temporary construction permits) as proposed or deny the alternative, and the rationale for that decision. The ROD would include a decision on Forest Plan amendments, if necessary, before a Special Use authorization could be issued to SDG&E for this Project. This ROD would be subject to administrative review and could be appealed under 36 CFR 215. To implement an approved alternative, the Forest Supervisor would authorize a 50 years term Special Use Permit for the construction, maintenance, and use of the 500 kV or 230 kV transmission lines along with ancillary improvements on NFS lands. The Forest Supervisor would also authorize any temporary construction permits. The Regional Director of Lands, acting for the Regional Forester, would issue a Special Use Easement, as appropriate.

A.6.4 Tribal Governments

The Proposed Project itself would not traverse tribal lands, but possible routes for future 230 kV and 500 kV transmission system expansion could pass through lands of the La Jolla Reservation, the Rincon Reservation, and the Barona Reservation. Those future transmission lines would require separate CEQA and/or NEPA permitting processes.

Also, the Interstate 8 Alternative would traverse approximately 2.7 miles of the Campo Reservation and approximately 0.7 miles of the La Posta Reservation and would require approval by the Campo Band of Kumeyaay Indians and the La Posta Band of Mission Indians, respectively, for that alternative to be permitted and constructed. The South Buckman Springs Option of the Interstate 8 Alternative would not require approval of the La Posta Band. The BCD South Option of the BCD Alternative would avoid both Campo and La Posta reservation lands. See Section C and Appendix 1 for a description of alternatives.

A.6.5 Permits Required for the SRPL Project

Table A-1 lists the federal, State, and local permits and authorizations required for the Proposed Project.

Table A-1. Permits or Other Actions Required Prior to Construction of the SRPL		
Agency	Jurisdiction	Permit or Regulatory Requirement
FEDERAL		
Council on Environmental Quality, National Environmental Policy Act	Environmental review of major federal actions	<ul style="list-style-type: none"> • Environmental Impact Statement
U.S. Fish and Wildlife Service	Endangered Species Act 16 USC 1531-1544 Migratory Bird Treaty Act and Eagle Protection Act Fish and Wildlife Coordination Act	<ul style="list-style-type: none"> • Biological Assessment, Section 7 Consultation, Biological Opinion
Bureau of Land Management	FLPMA, 43 USC 1701 et seq. 43 USC 1701 et seq.	<ul style="list-style-type: none"> • ROW Grant • Temporary Use Permit • Antiquities and Cultural Resources Use Permit • Plan of Development • Notice to Proceed • California Desert Conservation Area Plan Amendment • Clean Air Act Conformity • Fire Prevention Control Plan
Army Corps of Engineers	Clean Water Act, 33 USC 1341 Section 10, Rivers and Harbors Act Permit	<ul style="list-style-type: none"> • Individual/Nationwide Section 404 Permit
U.S. Department of Transportation, Federal Highway Administration		<ul style="list-style-type: none"> • Encroachment Permits • Review of obstruction and objects affecting airspace
U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms	Where blasting may be required	<ul style="list-style-type: none"> • Explosive User's Permit
Federal Aviation Administration		<ul style="list-style-type: none"> • Helicopter Lift Plan • Form 7460-1
MCAS Miramar	On MCAS Miramar land	<ul style="list-style-type: none"> • FAR Part 77 Request (via FAA) • SECNAVINST 11011.47A (access road outside of easement)
STATE		
California Public Utilities Commission	Transmission, substation, generation projects 50 kV and above	<ul style="list-style-type: none"> • Certificate of Public Convenience and Necessity • Certification of EIR
California Department of Parks and Recreation	State Park Lands (Anza-Borrego Desert State Park)	<ul style="list-style-type: none"> • Easement

Sunrise Powerlink Project

A. INTRODUCTION

Table A-1. Permits or Other Actions Required Prior to Construction of the SRPL

Agency	Jurisdiction	Permit or Regulatory Requirement
California Park and Recreation Commission	State Park Lands (Anza-Borrego Desert State Park)	<ul style="list-style-type: none"> • Plan Amendment • Change in Wilderness Designation
California Independent System Operator	Purpose and Need for new transmission, substation and generation projects	<ul style="list-style-type: none"> • Interconnection approval
California State Lands Commission	State lands	<ul style="list-style-type: none"> • Right-of-Way Easement
California Department of Fish and Game	Manage fish, wildlife, plant resources and habitats; California ESA, California Native Plant Protection Act, California Fish and Game Code Section 1601	<ul style="list-style-type: none"> • Streambed Alteration 1601 Permit • Section 2061 Incidental Take Permit • Mitigation agreement/plan • Certification of EIR
California Department of Transportation	CA streets and highways Code 660-711.21 Cal. Code of Regs. 1411.1-1411.6	<ul style="list-style-type: none"> • Encroachment Permits • Traffic Control Plans
California Department of Toxic Substances Control	Hazardous Waste Control Act of 1972	<ul style="list-style-type: none"> • EPA Hazardous Waste Generator ID • 90 days TSD Permit • Hazardous Material Business Plan • EPA Hazardous Waste Generator ID
California State Historic Preservation Office	Any archaeological or paleontological work	<ul style="list-style-type: none"> • Cultural Resources Use Permit, Field Use Authorization, or an Archaeological Resources Protection Act (ARPA) Permit (if required) • Consultation for Section 106 of the National Historic Preservation Act
California Air Resources Board	State-wide	<ul style="list-style-type: none"> • Portable Engine Registration for specified non-mobile portable engines.
California Reclamation Board	Waterways that possess designated floodways	<ul style="list-style-type: none"> • Encroachment Permit
LOCAL AND REGIONAL		
Imperial County	County roads and highways, flood control/drainage channels	<ul style="list-style-type: none"> • Road/Highway Encroachment/Crossing Permit • Grading Permit • Flood Control/Drainage Channel Encroachment/Crossing Permit • General and/or Community Plan Amendment • Variance • Explosives Permit
San Diego County	County roads and highways, flood control/drainage channels	<ul style="list-style-type: none"> • Road/Highway Encroachment/Crossing Permit • Grading and Wall Permits • Traffic Control Plans • Explosives Permit • New or expanded ROW Grant • Flood Control/Drainage Channel Encroachment/Crossing Permit • Excavation Permit
Regional Water Quality Control Board, Region 7 (Colorado River Basin)	Clean Water Act, Section 401	<ul style="list-style-type: none"> • 401 Certification • Storm Water Construction General Permit 99-08-DWQ • National Pollutant Discharge and Elimination System (NPDES) Permit • Waste Discharge Requirements (WDRs)
Regional Water Quality Control Board, Region 9 (San Diego)	Clean Water Act, Section 401	<ul style="list-style-type: none"> • 401 Certification • Storm Water Construction General Permit 99-08-DWQ • NPDES Permit • WDRs

Table A-1. Permits or Other Actions Required Prior to Construction of the SRPL

Agency	Jurisdiction	Permit or Regulatory Requirement
Imperial Irrigation District	District irrigation/drainage channels	<ul style="list-style-type: none"> • Encroachment/Crossing Permit • Easements and ROW Grant
Imperial County APCD San Diego County APCD	Health and Safety Code 42300 et seq.	<ul style="list-style-type: none"> • Permit to Operate • Fugitive Dust Permit
San Diego and Imperial County Environmental Health Services	Health and Safety Code Chapter 6.95	<ul style="list-style-type: none"> • Hazardous Materials Business Plan • Hazardous Materials Inventory
City of San Diego	Coastal zone (Local Coastal Program)	<ul style="list-style-type: none"> • Coastal Development Permit
Cities of San Diego and Poway	City roads and highways, flood control/ drainage channels, lands	<ul style="list-style-type: none"> • Road/Highway Encroachment/Crossing Permit • Flood Control Channel • Encroachment/Crossing Permit • Temporary Use/Occupancy Permit – Material and Storage Yards

Source: SDG&E 2006

A.7 Reader's Guide to This EIR/EIS

A.7.1 Incorporation by Reference

The documents listed below have been used in preparing this EIR/EIS. Copies of these documents are available on the websites listed below. Copies can also be viewed, upon request, at the CPUC's office (San Francisco) and BLM El Centro Field Offices.

Proponent's Environmental Assessment. SDG&E's Proponent's Environmental Assessment (PEA; submitted as part of its Application No. A.06-08-010 for the SRPL Project) contains certain information that is incorporated by reference in some sections of this EIR/EIS. This document is available for public review during normal business hours at the CPUC's Central Files (505 Van Ness Avenue, San Francisco), in local libraries (see Section I), and also via the Internet at the CPUC website:

<http://www.cpuc.ca.gov/environment/info/asp/sunrise/sunrise.htm>

Lake Elsinore Advanced Pumped Storage (LEAPS) Project. An alternative to the Proposed Project, the Lake Elsinore Advanced Pumped Storage (LEAPS) Project is evaluated in part in this EIR/EIS based on several documents. First is the Final EIS prepared by the Federal Energy Regulatory Commission (FERC). The FERC EIS for the LEAPS combined generation and transmission project contain certain information that is incorporated by reference in some sections of this EIR/EIS. The LEAPS EIS is available via the Internet at:

<http://www.ferc.gov/industries/hydropower/enviro/eis/2007/01-30-07.asp>.

Another document used in this EIR/EIS in analysis of the LEAPS Project is the Application for Certificate of Public Convenience and Necessity (CPCN) and Draft Proponent's Environmental Assessment (PEA). Application A.07-10-005. Available at CPUC; the proceeding files are available at:

<http://docs.cpuc.ca.gov/published/proceedings/A0710005.htm>

A third document used for the LEAPS analysis is the following:

“Delineation of Jurisdictional Waters and Wetlands Proposed Lake Elsinore Advanced Pump Storage (LEAPS)”, Unincorporated Riverside and San Diego Counties, California. Michael Brandman Associates. November 14, 2007. Available at U.S. Army Corps of Engineers, 945 Wilshire Blvd., 11th Floor, Los Angeles, California 90017-3401.

ABDSP Final General Plan and EIR. The California State Parks Department’s ABDSP Final General Plan and EIR (SCH #2002021060) contains certain information that is incorporated by reference in some sections of this EIR/EIS. This document is available via the Internet at:

www.parks.ca.gov/pages/21299/files/final--001cover-resolutions.pdf

Truckhaven Geothermal Leasing Area Draft EIS. This document was prepared by BLM’s El Centro Field Office to evaluate potential geothermal leasing in the area north of Highway 78 in Imperial County. It is available via the Internet at:

www.blm.gov/style/medialib/blm/ca/pdf/elcentro/nepa/2007/eis.Par.14729.File.dat/truckhaven_deis.pdf

Valley-Rainbow Administrative Draft EIR/EIS. Prepared by Dudek & Associates for the CPUC. 2002. Available from the CPUC.

A.7.2 EIR/EIS Organization

This EIR/EIS is organized as follows:

Executive Summary. A summary description of the Proposed Project, the alternatives, their respective environmental impacts and the Environmentally Superior (CEQA) and Agency Preferred (NEPA) Alternative.

Section A (Introduction/Overview). A discussion of the background, purpose and need for the project, briefly describing the proposed SRPL Project, and outlining the public agency use of the EIR/EIS.

Section B (Description of Proposed Project). Detailed description of the proposed SRPL Project.

Section C (Alternatives). Description of the alternatives evaluation process, description of alternatives considered but eliminated from further analysis and the rationale thereof, and description of the alternatives analyzed in Sections D and E.

Section D (Environmental Analysis: Proposed Project and Alternatives along Proposed Project Route). A comprehensive analysis and assessment of impacts and mitigation measures for the Proposed Project and alternatives, including the No Project Alternative. This section is divided into main sections for each of 15 environmental issue areas (e.g., Air Quality, Biological Resources) that contain the environmental settings and impacts of the Proposed Project and each alternative. At the end of each issue area analysis, a Mitigation Monitoring table is provided. This section also includes policy consistency determinations (Section D.16) and on plan amendments (Section D.17).

Section E (Environmental Analysis: Southwest Powerlink Alternatives, Non-Wires Alternatives, System Alternatives, and No Project/No Action Alternatives). This section is divided into main sections for each of 15 environmental issue areas (e.g., Air Quality, Biological Resources) that contain the environmental settings and impacts of the alternatives not along the proposed route corridor.

Section F (Other CEQA and NEPA Requirements). A discussion of environmental justice, growth-inducing effects, significant irreversible and irretrievable changes, significant environmental effects which

cannot be avoided if the Proposed Project is implemented, and the relationship between short-term uses and long-term productivity of the environment.

Section G (Cumulative Scenario and Impacts). A discussion of the cumulative scenario and impacts with regard to the Proposed Project and alternatives.

Section H (Comparison of Alternatives). Identification of the CEQA Environmentally Superior Alternative and a discussion of the relative advantages and disadvantages of the Proposed Project and alternatives that were evaluated.

Section I (Mitigation Monitoring and Reporting). A discussion of the CPUC's and BLM's mitigation monitoring program requirements for the project as approved by the CPUC and BLM.

Section J (Public Participation). A brief description of the public participation program for this EIR/EIS.

Section K (Index)

Section L (Glossary and Abbreviations)

Appendices:

Appendix 1	Alternatives Screening Report
Appendix 2	Policy Screening Report
Appendix 3	Fire and Fuels Modeling
Appendix 4	Persons & Organizations Consulted
Appendix 5	Preparers of this Document
Appendix 6	Recipients of the Draft EIR/EIS
Appendix 7	EMF – SDG&E's EMF Field Management Plan for Sunrise Powerlink
Appendix 8	Biological Resources
8A	Proposed Project Biological Resources/Impacts Maps
8B	Protocol Survey Summary Table
8C	Protocol Survey Maps
8D	Imperial Valley Link Alternatives Biological Resources/Impacts Maps
8E	Anza-Borrego Link Alternatives Biological Resources/Impacts Maps
8F	Central Link Alternatives Biological Resources/Impacts Maps
8G	Inland Valley Link Alternatives Biological Resources/Impacts Maps
8H	Coastal Link Alternatives Biological Resources/Impacts Maps
8I	Substation Alternatives Biological Resources/Impacts Maps
8J	Southwest Powerlink Alternatives Biological Resources/Impacts Maps
Appendix 9	Cultural Resources and Native American Consultation
9A	Cultural Resources – Detailed Area History
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Appendix 10	Air Quality
Appendix 11	Detailed Route Maps
11A	Maps: Proposed Project Detail
11B	Maps: Anza-Borrego Desert State Park Detail
11C	Maps: Alternatives Detail
Appendix 12	Full Text of All Mitigation Measures
Appendix 13	Contamination Database

A.8 References

- BLM (United States Department of the Interior, Bureau of Land Management). 2007. Draft Environmental Impact Statement, Truckhaven Geothermal Leasing Area, for the El Centro Field Office, El Centro, California, February 2007, DOI Control #DES 07-01, Publication Index #BLM/CA/ES-2007-002+ 3200.
- CAISO (California Independent System Operator). 2006a. South Regional Transmission Plan for 2006 (CSRTP-2006) Report: The Sun Path Project Study. <http://www.caiso.com/1841/1841b1925a320.pdf>. July 28, 2006.
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- SDG&E (San Diego Gas & Electric). 2006a. Proponent's Environmental Assessment Sunrise Powerlink Transmission Line Project. August 4.
- _____. 2006b. A.06-08-010 Sunrise Powerlink Project, SDG&E 12-1-06 Response to UCAN Data Request 7. December 1.
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- SES (Stirling Energy Systems). 2007. Response to CPUC/BLM data request by SES. March 19, 2007.