

ES EXECUTIVE SUMMARY

This Environmental Impact Report/Environmental Impact Study (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 permitting agencies (including California Public Utilities Commission (CPUC) and Bureau of Land Management (BLM)) in considering whether to approve the East County (ECO) Substation, Tule Wind, and Energia Sierra Juarez U.S. Generator-Tie (ESJ Gen-Tie) projects (collectively referred to as the Proposed PROJECT), or any of the alternatives analyzed in this EIR/EIS.

The CPUC is the state lead agency, responsible for compliance with the California Environmental Quality Act (CEQA). The BLM, the federal lead agency, is responsible for compliance with the National Environmental Policy Act (NEPA). A Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was prepared by the CPUC and BLM in compliance with CEQA and NEPA Guidelines and published in December 2010 with a 70-day comment period that ended on March 4, 2011. The Final EIR/EIS consists of four volumes. Volumes 1 and 2 are completely reprinted from the Draft EIR/EIS and changes made since public review are signified as a replacement, addition, or revision to existing text. Revisions to existing text are signified by ~~strikeout~~ (i.e., ~~strikeout~~) where text is removed, and by underlined text (i.e., underline) where text is added for clarification. Volumes 3 and 4 of the Final EIR/EIS contain all responses to comments received on the Draft EIR/EIS as well as comment letters received during the public review period.

This executive summary is organized as follows:

- ES.1, Introduction
- ES.2, Agency Use of the Document
- ES.3, Project Overview and Objectives
- ES.4, Areas of Controversy/~~Public Scoping~~ Issues
- ES.5, Project Alternatives
- ES.6, Summary of the Environmental Analysis
- ES.7, Anza-Borrego Desert State Park
- ES.8, Environmentally Superior Alternative/Agency-Preferred Alternative
- ES.98, Issues to be Resolved.

ES.1 Introduction

San Diego Gas & Electric Company (SDG&E) has filed an application (A.09-08-003) for a Permit to Construct (PTC) with the CPUC for the proposed ECO Substation Project. The proposed ECO Substation Project would be located near the unincorporated communities of Jacumba and Boulevard, approximately 70 miles east of downtown San Diego, in the southeastern portion of San Diego County, California. The proposed ECO Substation Project would primarily be located on private lands with a 1.5-mile portion of the proposed 138-kilovolt (kV) transmission line project component located on federal lands ~~administered~~managed by the BLM; therefore, SDG&E has also requested a right-of-way (ROW) grant from the BLM for the 1.5-mile portion of the proposed 138 kV transmission line component.

In considering the proposed ECO Substation Project, the CPUC and BLM have evaluated a range of projects, including active generator applications that have been submitted to the California Independent System Operator (CAISO) for connections to the Southwest Powerlink (SWPL) through the proposed SDG&E ECO Substation Project. The CPUC and BLM have evaluated these projects to determine whether they are so closely related to the proposed ECO Substation Project as to be considered “connected actions” under the National Environmental Policy Act (NEPA) and “whole of the action” under the California Environmental Quality Act (CEQA). The CPUC (as the state lead agency under CEQA) and the BLM (as the federal lead agency under NEPA) have identified two projects in these categories:

- Tule Wind Project, as proposed by ~~Pacific Wind Development~~Tule Wind, LLC (a subsidiary of Iberdrola Renewables, Inc.), which would tie into the proposed Boulevard Substation rebuild component of the ECO Substation Project
- Energia Sierra Juarez U.S. Generator-Tie Project, as proposed by Energia Sierra Juarez U.S. Transmission, LLC, which would connect to the proposed ECO Substation.

These two projects, along with the proposed ECO Substation Project, are collectively referred to as the Proposed PROJECT. In addition, the proposed Invenergy and SDG&E Campo Wind Project, as well as the Manzanita Wind Project and Jordan Wind Project, which would connect to the Boulevard Substation Rebuild are viewed as reasonably foreseeable. The CPUC and BLM have determined that these three wind energy projects are sufficiently developed to analyze impacts where feasible. Therefore, for purposes of this EIR/EIS, the Campo, Manzanita, and Jordan projects are qualitatively evaluated at a programmatic level because sufficient project-level information has yet to be developed. The proposed Campo, Manzanita, and Jordan wind energy projects will still require project-specific environmental review and evaluation under all applicable environmental regulations once sufficient project-level information is developed. By including these nascent wind projects as components of the proposed wider PROJECT, it allows

the lead agencies to further consider broad impacts, mitigation and consequences of the ECO substation project specifically, and the wider PROJECT as a whole.

This EIR/EIS has been prepared jointly by the CPUC and BLM to evaluate the environmental impacts that would be expected to result from construction and operation of the Proposed PROJECT, including the Campo, Manzanita, and Jordan wind energy projects. This EIR/EIS provides mitigation measures, which, if adopted, would avoid or minimize many of the significant environmental impacts identified and in accordance with CEQA and NEPA requirements, identifies and evaluates the environmental impacts of alternatives to the Proposed PROJECT.

ES.1.1 Changes made to the Draft EIR/EIS

In response to comments on the Draft EIR/EIS and through consultation with government agencies, changes have been made in the Final EIR/EIS. The following information has been added to or revised in this Final EIR/EIS and is listed by EIR/EIS section.

Section B Project Description

1. Tule Wind, LLC Modified Project Layout. After the Draft EIR/EIS was released for public review in December 2010, Tule Wind, LLC modified the Tule Wind Project layout to reduce the overall size of the project. The modified project as presented and analyzed in the Final EIR/EIS reduces the number of turbines and adjusts the transmission line route and access roads, as well as slightly modifies the layout of some of the turbine locations, as depicted in the Draft EIR/EIS. Table ES-1 provides a comparison of the Tule Wind Project analyzed in the Draft EIR/EIS with the Tule Wind modified project. The analysis supporting the evaluation of these modifications for each environmental topic is provided under the “Direct and Indirect Effects” heading under the “Tule Wind Project” discussion in Sections D.2 through D.18, in this Final EIR/EIS.

Table ES-1
Comparison of the Draft EIR/EIS versus Modified Tule Wind Project

<u>Component</u>	<u>Draft EIR/EIS Project</u>	<u>Modified Project</u>
<u>Turbines</u>	<u>134 (200 MW)</u>	<u>128 (201 MW)</u>
<u>Met Towers</u>	<u>2 (197 feet)</u>	<u>3 (219 – 328 feet)</u> <u>new tower on northwest ridge on Ewiiapaayp lands near turbine L-6</u>
<u>SODAR unit</u>	<u>SODAR</u>	<u>May include LIDAR unit (same location as SODAR)</u>
<u>Batch Plant¹</u>	<u>on BLM</u>	<u>Location on BLM land moved slightly to the northeast from the location shown in the Draft EIR/EIS</u>

Table ES-1 (Continued)

<u>Component</u>	<u>Draft EIR/EIS Project</u>	<u>Modified Project</u>
<u>Underground collector system</u>	<u>42 – 50 inch deep trench</u>	<u>44 – 50 inch deep trench</u>
<u>Overhead collector system</u>	<u>232 poles</u> <u>Temporary Impact: 108.2 acres</u>	<u>250 poles</u> <u>Temporary Impact: 127 acres</u>
<u>138 kV transmission</u>	<u>100 feet ROW</u> <u>Single circuit</u> <u>108 poles</u> <u>9.7 miles</u>	<u>125 feet ROW</u> <u>Double circuit</u> <u>80 poles</u> <u>9.2 miles</u>
<u>Access Roads</u>	<u>New: 36.4 miles</u> <u>Improved: 27.6 miles</u> <u>Total land requirement: 250.3 acres</u>	<u>New: 36.8 miles</u> <u>Improved: 23.4 miles</u> <u>Total land requirement: 236.1 acres</u>
<u>Laydown area locations</u>	<u>38</u> <u>Temporary fencing would occur</u>	<u>38 – no change in number but some locations are modified</u> <u>Temporary fencing may occur</u>

Notes:

¹ Of the two alternative batch plant locations provided in the modified project layout, the alternative Rough Acres Ranch location for the batch plant is carried forward and considered in Tule Wind Project Alternatives 1 through 4.

These modifications to the Tule Wind Project are not the types of changes that would require analysis through supplementation or recirculation of the Draft EIR/EIS because the modifications reduce the overall size of the project. Therefore, these modifications to the Tule Wind Project are within the scope of the original Draft EIR/EIS analysis and such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. Under NEPA, these changes do not result in new significant circumstances or information relevant to environmental concerns, or require analysis of a new alternative (40 CFR 1502.9(c)(1)(ii)).

- 2. ESJ Gen-Tie Project Water Well Access Road.** In order to access well water for use during construction, approximately 4 miles east of ESJ Gen-Tie site, a new access route (150 feet by 20 feet) is proposed from Old Highway 80 to an existing well site. The new access road would facilitate access to an existing water well on property owned by the Jacumba Community Services District. This modification is addressed in Section B and its effects are analyzed in Section D.

Section C Alternatives

- 1. SDG&E ECO Substation Project Alternatives.** After release of the Draft EIR/EIS for public review in December 2010, a modification to the ECO Partial Underground 138 kV Transmission Route Alternative was developed through government-to-government Section 106 consultation to reduce potential impacts to cultural resources in the proposed Jacumba National Register

District between milepost (MP) 0.3 and 2.4. In addition, through consultation with the U.S. Army Corps of Engineers (ACOE), a modification to the ECO Substation Alternative Site was developed to reduce environmental effects to jurisdictional wetlands and cultural resources.

The proposed modifications to the ECO Partial Underground 138 kV Transmission Route Alternative and ECO Substation Alternative Site are summarized below in Section ES.5.2.1 and are described in detail in Section C, Alternatives, in this Final EIR/EIS. The analysis supporting the evaluation of the modifications of these alternatives for each environmental topic is provided under the headings “ECO Substation Alternative Site” and “ECO Partial Underground 138 kV Transmission Route Alternative” in Sections D.2 through D.18 of this Final EIR/EIS.

The modifications to the ECO Partial Underground 138 kV Transmission Route Alternative and ECO Substation Alternative Site are not the types of changes in circumstance that would require analysis through supplementation of the Draft EIR/EIS because the modifications minimize or avoid effects on the environment. Therefore, these modifications to the ECO Partial Underground 138 kV Transmission Route Alternative and ECO Substation Alternative Site are within the scope of the original Draft EIR/EIS analysis and such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. Under NEPA, these changes do not result in new significant circumstances or information relevant to environmental concerns or require analysis of a new alternative (40 CFR 1502.9(c)(1)(ii)).

2. Tule Wind Project Alternatives (Alternatives 1 through 4 (Gen-Tie Routes 2 and 3 with Collector Station and O&M Facility on Rough Acres Ranch). During public review of the Draft EIR/EIS, Tule Wind, LLC proposed an alternative location for the temporary 5-acre batch plant on Rough Acres Ranch. In addition, during the Section 106 government-to-government consultation, a concern was raised by Indian tribes regarding the location of the overhead collector line to the west of Lost Valley Rock (or its Kumeyaay name, “wekatoekush”), a geological feature located to the west of McCain Valley Road that holds value to the tribes. These alternatives address moving the overhead collector line to the east side of Lost Valley Rock to the 138 kV transmission line corridor that is vacated by moving the collector substation and O&M facility to Rough Acres Ranch. These modifications are summarized below in Section ES.5.2.2 and are addressed in Section C. Their effects are described in Section D.

These modifications to the Tule Wind Project Alternatives (Alternatives 1 through 4) are not the types of changes in circumstance that would require analysis through supplementation of the Draft EIR/EIS because the modifications minimize effects on the environment. Therefore, these modifications to the Tule Wind Project Alternatives (Alternatives 1 through 4) are within the scope of the original Draft EIR/EIS analysis and such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. Under

NEPA, these changes do not result in new significant circumstances or information relevant to environmental concerns, or require analysis of a new alternative (40 CFR 1502.9(c)(1)(ii)).

- 3. Tule Wind Project Alternatives (Alternative 5, Reduction in Turbines).** Under this alternative, the proposed Tule Wind Project would consist of 65 turbines with the removal of 63 specific turbines to include six (6) turbines adjacent to the In-Ko-Pah Mountains Area of Environmental Concern (ACEC) being S1, R4, (R8), R8, R9, and R10 and 57 turbines on the western side of the project site including all turbines in the J, K, L, M, N, P, and Q strings. These modifications are described in Section C and their effects are analyzed in Section D.

Section D Environmental Analysis

- 1. Revised Analysis and Mitigation Measures.** Various text sections have been modified in Section D, Environmental Analysis, or clarified in response to comments (see Section ES.4.2 for summary of comments received during public review of the Draft EIR/EIS). In addition, impact category FF-1 in Section D.15, Fire and Fuels Management, was clarified to distinguish this impact from Impact FF-2 and several mitigation measures have been modified for clarity or to ensure their feasibility (see various issue areas in Section D).
- 2. Consideration of BLM Lands with Wilderness Characteristics.** Pursuant to the Federal Land Policy and Management Act, the BLM is required to conduct and maintain resources inventories for all public lands under its jurisdiction. BLM Instruction Memorandum (IM) 2011-154 reiterates the requirement for offices to conduct and maintain inventories regarding the presence and absence of wilderness characteristics, and to consider identified lands with wilderness characteristics when analyzing projects under NEPA. The BLM conducted an inventory for the Tule Wind Project site and determined that lands with wilderness characteristics are present (see Figure D.5-3, BLM Lands with Wilderness Characteristics). The wilderness characteristics inventory is summarized in EIR/EIS Section D.5, Wilderness and Recreation (see Section D.5.1.1). Impact WR-3a (presence of a project component in BLM lands with wilderness characteristics would substantially compromise wilderness characteristics), has been added to the Final EIR/EIS for the proposed Tule Wind Project and Tule Wind Project alternatives (see Section D.5.3.3, Impact WR-3a and subsections D.5.5.1 through D.5.5.5, Impact WR-3a).

ES.2 Agency Use of the Document

This EIR/EIS will be used by the permitting agencies (including CPUC and BLM) in considering whether to approve the ECO Substation, Tule Wind, and ESJ Gen-Tie projects, or any of the alternatives analyzed in this EIR/EIS. This EIR/EIS will not be used by the permitting agencies as the primary NEPA/CEQA document in consideration of the proposed Campo, Manzanita, and

Jordan wind energy projects, which will require project-specific environmental review and evaluation under all applicable environmental regulations once sufficient project-level information has been developed. By considering the Campo, Manzanita, and Jordan wind energy projects on a broad programmatic level earlier in the planning process, the permitting agencies are able to undertake a more comprehensive evaluation of all of the potential significant effects, including cumulative impacts, related to the overall Proposed PROJECT.

ES.2.1 California Public Utilities Commission

This EIR/EIS will be used by the CPUC, in conjunction with other information developed in the CPUC's formal record, to act only on SDG&E's application for a PTC and permission to operate the proposed ECO Substation. After the Final EIR/EIS is completed and certified, the CPUC will make a final decision on the ECO Substation Project. The Administrative Law Judge (ALJ) overseeing the PTC will prepare the proposed decision based on the environmental documentation and testimony from parties to the proceeding. The ALJ and CPUC will consider the final environmental document, along with other issues, during preparation of the decision on the PTC application.

ES.2.2 Bureau of Land Management

BLM is the federal lead agency for preparation of this EIR/EIS in compliance with the requirements of NEPA, the Council on Environmental Quality (CEQ) regulation for implementing NEPA (40 CFR 1500 et seq.), and the BLM NEPA Handbook (H-1790-1) in the evaluation of SDG&E's proposed ECO Substation Project and ~~Pacific Wind Development's Tule Wind, LLC's~~ proposed Tule Wind Project.

The BLM's purpose and need for the ECO Substation and Tule Wind projects is to respond to SDG&E's and ~~Pacific Wind Development's Tule Wind, LLC's~~ applications under Title V of the Federal Land Policy and Management Act (FLPMA, 43 U.S.C. 1701 et seq.) for an ROW grant to construct, operate, maintain, and decommission a wind energy facility (Tule Wind Project) and a 138 kV transmission line on public lands (ECO Substation Project) in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws. The BLM will consider the Final EIR/EIS and decide whether to approve, approve with modification, or deny issuance of an ROW grant to the applicants for their proposed projects.

ES.2.3 Responsible/Cooperating Agencies

Responsible/cooperating agencies, including the County of San Diego, California State Lands Commission, Bureau of Indian Affairs (BIA), Ewiiapaayp Band of Kumeyaay Indians, and the ~~U.S. Army Corps of Engineers (ACOE)~~, will also use the EIR/EIS for their approval processes. Following certification of the EIR/EIS by the CPUC, the County of San Diego will use the

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EIR/EIS for its discretionary action under CEQA in consideration of issuing two separate major-use permits, one for the Tule Wind Project and one for the ESJ Gen-Tie Project, because portions of those projects are within the County’s jurisdiction. Because portions of the Tule Wind Project will occur on lands under the jurisdiction of the California State Lands Commission (CSLC) and the Ewiiapaayp Band of Kumeyaay Indians, the BIA, Ewiiapaayp Band of Kumeyaay Indians, and CSLC will also use the EIR/EIS for consideration of their required discretionary actions. Table ES-21 lists agency jurisdiction by Proposed PROJECT component.

Following issuance of the Final EIR/EIS by the BLM, ACOE, depending on the total amount of waters of the U.S. impacted by the BLM-approved project, may will consider adoption of the document as a means of satisfying its NEPA requirements and will use the EIR/EIS in consideration of issuance of two separate Clean Water Act Section 404 permits, one for the Tule Wind Project and one for the ECO Substation Project.

**Table ES-21
Agency Jurisdiction of Project Components**

Proposed PROJECT	Project Component	Jurisdiction	Miles/Acres ² under Jurisdiction
ECO Substation Project	ECO Substation 500 kilovolt (kV) and 230/138 kV Yards	California Public Utilities Commission (CPUC) ¹	85.9 acres
	Southwest Powerlink (SWPL) Loop-In	CPUC ¹	1.74 acres
	138 kV Transmission Line	CPUC ¹	11.8 miles
		BLM	1.5 miles
	Boulevard Substation Rebuild	CPUC ¹	3.2 acres
Tule Wind Project	Wind Turbines and 34.5 kV Overhead and Underground Collector Cable System	Ewiiapaayp Band of Kumeyaay Indians / BIA (187 wind turbines)	20.251.6 acres
		BLM (967 wind turbines)	280.277.9 acres
		CSLC (7 wind turbines)	37.520.7 acres
		County of San Diego (743 wind turbines)	49.19.1 acres
	Collector Substation	BLM	5 acres
	Operations and Maintenance Facility	BLM	5 acres
	Meteorological Towers & SODAR/LIDAR unit	BLM	0.08362 acres
	138 kV Transmission Line	BLM	5.917.42 miles
		County of San Diego	3.054.96 miles
	State of California ³	0.236 miles	

Table ES-24 (Continued)

Proposed PROJECT	Project Component	Jurisdiction	Miles/Acres ² under Jurisdiction	
ESJ Gen-Tie Project	ESJ Gen-Tie Project	<u>New Roadways / Existing Roadways</u>	<u>Ewiiapaayp Band of Kumeayaay Indians / BIA / Campo / Manzanita</u>	<u>12.3 miles</u>
		<u>BLM</u>	<u>36.2 miles</u>	
		<u>County of San Diego</u>	<u>8.4 miles</u>	
		<u>State of California</u>	<u>3.3 miles</u>	
ESJ Gen-Tie Project	ESJ Gen-Tie Project	500 kV Transmission Line (Steel Lattice Towers and Monopole Structures)	County of San Diego	10.65 acres
		230 kV Transmission Line (Steel Lattice Towers and Monopole Structures)	County of San Diego	9.6 acres
		<u>Access Road to Existing Water Well</u>	<u>County of San Diego</u>	<u>0.06 acre (150 x 20 feet)</u>
Campo Wind Project	Campo Wind Project	Wind Turbines	Campo Band of Mission Indians and <u>CPUCBIA</u>	unknown
		Switchyard and 138 kV Transmission Line	<u>BIA and / or CPUC¹</u>	unknown
Manzanita Wind Project	Manzanita Wind Project	Wind Turbines	Manzanita Band of in Mission Indians and <u>CPUCBIA</u>	unknown
		Switchyard and 138 kV Transmission Line	<u>BIA and / or CPUC¹</u>	unknown
Jordan Wind Project	Jordan Wind Project	Wind Turbines	County of San Diego	unknown
		Switchyard and interconnection transmission line	County of San Diego and /or CPUC	unknown

¹ Although these components of the ECO Substation, Campo, and Manzanita wind energy projects would be located on, or traverse, County of San Diego land, the County does not have jurisdiction of utility facilities. The CPUC has jurisdiction over these utilities according to California Constitution Article 12, Section 8.

² Acreage provided is permanent impact acreage. Temporary impact acreage for each project component is identified in Section B, Project Description, of this EIR/EIS. Mileage and acreage provided in table is approximate.

³ The Tule Wind 138 kV transmission line would traverse State of California (Conservation Camp) lands and would cross Caltrans ROW at the Interstate 8 crossing.

As listed in Section A, Introduction/Overview, of this EIR/EIS, several other state and federal agencies may rely on information in this EIR/EIS to inform them in their decisions regarding issuance of specific permits related to project construction or operation: the Department of Transportation, California Department of Fish and Game, Regional Water Quality Control Board, and Office of Historic Preservation.

ES.3 Project Overview/Objectives

The Proposed PROJECT would be located in southeastern San Diego County, approximately 70 miles east of downtown San Diego, near the unincorporated communities of Jacumba and Boulevard (Figures ES-1, Regional Map, and ES-2, Vicinity Map/Overview Map). The

following provides an overview of the Proposed PROJECT. A detailed project description is provided in Section B of this EIR/EIS.

ECO Substation Project

The ECO Substation Project, as proposed by SDG&E, includes the following major components:

- Construction of a 500/230/138 kV substation in eastern San Diego County
- Construction of the SWPL Loop-In, a short loop-in of the existing SWPL transmission line to the proposed ECO Substation
- Construction of a 138 kV transmission line, approximately 13.3 miles in length, running between the proposed ECO Substation and the rebuilt Boulevard Substation
- Rebuild of the existing Boulevard Substation.

The proposed ECO Substation Project would provide an interconnection hub for renewable generation along SDG&E's existing SWPL 500 kV transmission line. In addition to accommodating the region's planned renewable energy generation, the project would also provide a second source for the southeastern 138 kV transmission system that avoids the vulnerability of common structure outages, which would increase the reliability of electrical service for Boulevard, Jacumba, and surrounding communities.

Tule Wind Project

The Tule Wind Project, as proposed by ~~Pacific Wind Development~~ Tule Wind, LLC, would include the following major components:

- Up to 134-128 wind turbines, generating capacity ranging in size between 1.5-megawatt (MW) (328 feet in height) and 3.0 MW, (492 feet in height) and ranging in height from 219 to 328 feet to the wind turbine hub (or nacelle), and 327 feet to 492 feet to the top-most blade tip, generating up to 201 MW of electricity
- A 34.5 kV overhead and underground collector cable system linking the wind turbines to the collector substation
- A 5-acre collector substation site and a 5-acre operations and maintenance (O&M) building site
- Two-Three permanent meteorological towers and one sonic detecting and ranging (SODAR) unit or one light detecting and ranging (LIDAR) unit
- A 138 kV overhead transmission line running south from the collector substation to be interconnected with the rebuilt SDG&E Boulevard Substation.

The proposed Tule Wind Project would generate 2010 MW of electricity and would connect to the proposed Boulevard Substation rebuild component of SDG&E's ECO Substation Project where the electricity generated would feed into the existing SWPL 500 kV transmission line.

ESJ Gen-Tie Project

As proposed, the ESJ Gen-Tie Project would have the capacity to import up to 1,250 MW of renewable energy generated in northern Baja California, Mexico, and transmit to the existing SWPL transmission line in southeastern San Diego County, California. The selected route would interconnect with SDG&E's proposed ECO Substation and would be constructed on three to five 150-foot lattice towers or 170-foot steel monopoles, extending south from the point of interconnection for about 0.5 mile to the U.S. – Mexico international border. Only renewable energy would be transmitted via the gen-tie line. Although Energia Sierra Juarez U.S. Transmission, LLC, has proposed a 500 kV and a 230 kV Gen-Tie, only one of these would be built, with the 230 kV option being the preferred alternative. This EIR/EIS addresses both the 500 kV and 230 kV gen-tie lines, as well as potential biological, visual resource, and fire hazard impacts to the U.S. associated with wind turbines constructed in Mexico. In addition, approximately 4 miles east of the ESJ Gen-Tie site, a new access route (150 feet by 20 feet) is proposed from Old Highway 80 to an existing well site. Both the access route and well site are owned by the Jacumba Community Services District.

Campo Wind Project

SDG&E proposes to construct and operate approximately 106 turbines capable of generating 160 MW of electricity on its reservation lands. The project would be located south of the Tule Wind Project and west of the Boulevard Substation on the Campo Indian Reservation. Construction of the project is expected to occur over a single phase. Turbines (approximately 450 feet tall from ground to tip of the fully extended turbine blade) would be located on available ridgelines on the reservation. In addition to the 160 MW of generating capacity proposed for this project, the Campo Tribe has requested that an additional 140 MW of generation be analyzed in the BIA's NEPA review of the project for future development purposes. The proposed Invenergy and SDG&E Campo Wind Project would connect with the Boulevard Substation Rebuild component of the ECO Substation Project.

Manzanita Wind Project

The Manzanita Tribe proposes a project capable of generating up to 57.5 MW, which could include up to 25 wind turbines depending on the turbine size selected. These wind turbines are proposed to be located on the same ridgeline as the existing Kumeyaay Wind facility. Turbines are proposed to be approximately 414 feet tall from ground to tip of the turbine blade fully

extended. The Manzanita Wind Project would connect with the Boulevard Substation Rebuild component of the ECO Substation Project.

It is expected that the Campo and Manzanita wind energy projects would develop a switchyard for both facilities on non-tribal lands and a new 138 kV transmission line would be constructed along the existing ROW of the 69 kV transmission corridor that currently connects to the existing Boulevard Substation. The new 138 kV transmission line would interconnect with the proposed Boulevard Substation Rebuild component of the ECO Substation Project.

Jordan Wind Project

The developers of the Jordan Wind Project have completed a preliminary wind energy assessment to construct and operate 40 2.3 MW turbines (total generating capacity of 92 MW) west of Boulevard in unincorporated San Diego County. The towers of the proposed wind turbines would be approximately 260 feet tall (height from ground to tip of fully extended blade would be approximately 430 feet). As proposed, construction of the project would occur between February and October 2013, and commercial operations are scheduled to begin in November 2013. The preferred point of interconnection for the Jordan Wind Project is the Boulevard Substation Rebuild component of the ECO Substation Project.

ES.4 Areas of Controversy/~~Public Scoping~~ Issues

ES.4.1 Scoping

In compliance with NEPA, the BLM posted a Notice of Intent (NOI) in the Federal Register on December 29, 2009, and in accordance with CEQA Guidelines, a Notice of Preparation (NOP) was prepared by the CPUC and mailed to the State Clearinghouse and other recipients on December 28, 2009, posted in the San Diego Union Tribune on December 28, 2009, and published in the Back County Messenger in their January edition. These actions initiated the 30-day public scoping period for the project. The comment period for the NOP ended on February 10, 2010, and on February 12, 2010, for the NOI. Comments were accepted until February 19, 2010. The scoping process provides an opportunity for governmental agencies and the public to provide comments on the issues and scope of the EIR/EIS. The CPUC and BLM held two public scoping meetings (January 27 and 28, 2010), to provide the public and governmental agencies information on the CEQA and NEPA process and to give them opportunities to identify environmental issues and alternatives for consideration in the EIR/EIS.

In total, 60 letters were received: 24 from federal, state, and local agencies and organizations; 35 from individuals; and 1 from the Campo Band of Mission Indians during the public scoping process. All comments received during the public scoping process are summarized in Section I

of this EIR/EIS and included in the Public Scoping Report posted on the CPUC's website (see <http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/ECOSUB.htm> for Scoping Report).

Major issues discussed during this process included evaluation of alternatives, including project design alternatives such as undergrounding; alternative systems; and alternative energy technologies, such as distributed generation (DG), including rooftop solar panels. Environmental and social issues that were raised during scoping included impacts on a variety of sensitive resources, including impacts to natural scenery; biologically sensitive areas, including golden eagle (*Aquila chrysaetos*) and Quino checkerspot butterfly (*Euphydryas editha quino*) habitat; residential and recreational areas; areas susceptible to unstable conditions due to geology; increased risk of wildfire hazards; public health and safety; effects on local groundwater resources; as well as cumulative effects from other energy projects in the region in addition to all past, present, and reasonably foreseeable projects within the geographic range of the project.

According to the CEQA Guidelines, Section 15205(d), and NEPA (40 CFR 1506.10), the customary review period of a Draft EIR/EIS is 45 days. In accordance with CEQA and NEPA, the Notice of Availability (NOA) of the Draft EIR/EIS was distributed to more than 1,500 federal and state agencies; county and local jurisdictions; regional and local agencies, including local libraries; Native Americans; attorneys; private citizens; and the State Clearinghouse. The NOA, distributed on December 22, 2010, notified agencies, interested parties, and the public of the public review period of the Draft EIR/EIS, which began on December 24, 2010, and ended 54 days later on February 16, 2011. Recognizing that the public review period began during the holidays, the public comment period was extended past the typical 45-day public review period for a total of 54 days.

In addition to mailing the notice, the NOA was published in a regional newspaper, the *San Diego Union Tribune*, on December 24, 2010, as well as in a local newspaper, the *Back Country Messenger*, in the January 2011 monthly edition. On behalf of the BLM, the Environmental Protection Agency (EPA) also published an NOA in the Federal Register on December 23, 2010. BLM issued a news release on December 23, 2010, announcing availability of the Draft EIR/EIS on their project website at <http://www.blm.gov/ca/st/en/fo/elcentro/nepa/tule.html>. The NOA was also published on the CPUC website for the project at <http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/ECOSUB.htm>. During this period, the CPUC and BLM invited the public and interested groups to comment on the content of the Draft EIR/EIS. Furthermore, public information meetings on the Draft EIR/EIS were held at the Jacumba Highland Center on January 26, 2011, and the Boulevard Volunteer Fire Department on February 2, 2011. The NOA of the Draft EIR/EIS and the date of the public meetings were published concurrently with distribution of the Draft EIR/EIS.

In early February, the CPUC and BLM, at the request of EPA, announced another extension of the public comment period from February 16, 2011, to March 4, 2011—an additional 16 days beyond the original 54 days, for a total of 70 days. The extension notice was mailed on February 10, 2011, to the 1,500 + distribution list and was also published on the CPUC and BLM project websites. In addition, a one-page notice was prepared and sent to the Jacumba and Boulevard postmasters for posting on community boards within local post offices; the Highland Senior Center in Jacumba; as well as the three area libraries, including the Jacumba Public Library, Campo-Morena Village Branch Library, and Potrero Branch Library. The *Back Country Messenger* posted the extension notice on their community calendar as well (<http://plus.calendars.net/backcountry>).

ES.4.2 Comments on the Draft EIR/EIS

A 70-day public comment period followed the issuance of the Draft EIR/EIS in December 2010. More than 235 people and organizations participated in the public comment process by providing comments via email or post. Approximately 1,711 individual comments were received. The CPUC and BLM reviewed all comments and made changes to the EIR/EIS as appropriate. Responses to comments are provided in Volume 3 of the Final EIR/EIS.

The specific issues raised during the public scoping and Draft EIR/EIS review process are summarized in Table ES-3, Summary of Comments Received on the Draft EIR/EIS, and organized by section of the Draft EIR/EIS. Table ES-3 also indicates where major issues are addressed in the Final EIR/EIS.

Table ES-3
Summary of Comments Received on the Draft EIR/EIS

<u>Draft EIR/EIS Section</u>	<u>Comments</u>	<u>Where Addressed in Final EIR/EIS</u>
<u>Section B, Project Description</u>	<u>Adequacy of project description</u>	<u>Volume 3, Common Response PD1</u>
	<u>Import of renewable energy only on ESJ Gen-Tie Line/permitting requirements for projects in Mexico</u>	<u>Volume 3, Common Response PD2</u>
	<u>Potential for future expansion of the ECO Substation</u>	<u>Volume 3, Common Response PD3</u>
<u>Section C, Alternatives</u>	<u>Adequacy of the range of alternatives</u>	<u>Volume 3, Common Response ALT1</u>
	<u>Consideration of a distributed generation alternative to the Proposed PROJECT</u>	<u>Volume 3, Common Response ALT2</u>
<u>Section D.2, Biological Resources</u>	<u>Impacts to special-status wildlife species including (but not limited to) golden eagle, California condor, bats, peninsular bighorn sheep, and Quino checkerspot butterfly.</u>	<u>Volumes 1 and 2, Final EIR/EIS, Section D.2 (Subsection D.2.3.3, Impact BIO-7 for all projects)</u> <u>Volume 3, Common Responses BIO1,</u>

Table ES-3 (Continued)

Draft EIR/EIS Section	Comments	Where Addressed in Final EIR/EIS
		NOI2, BIO3, BIO4, BIO5
	<u>Adequacy of impact analysis regarding wildlife corridors</u>	Volumes 1 and 2, Final EIR/EIS, Section D.2 (Subsections D.2.1 (within the Regional Wildlife Corridor discussion) and D.2.3.3, Impact BIO-9 for the Tule Wind Project) Volume 3, Common Response BIO6
	<u>Adequacy of biological resources mitigation and cumulative analysis</u>	Volume 3, Common Responses BIO7, BIO8
	<u>Impacts on designated management areas</u>	Volumes 1 and 2, Final EIR/EIS, Section D.2 (Subsections D.2.2) and Section D.4 (Subsection D.4.2 and D.4.3, Impact LU-3 for the Tule Wind Project).
<u>Section D.3, Visual Resources</u>	<u>Adequacy of visual simulations</u>	Volumes 1 and 2, Final EIR/EIS, Section D.3 (Subsections D.3.1 (within the Visual Simulations discussion)) Volume 3, Common Response VIS1
	<u>Consideration of the Sunrise Powerlink in the existing visual setting</u>	Volume 3, Common Response VIS2
	<u>Visual impacts to Anza-Borrego Desert State Park</u>	Volumes 1 and 2, Final EIR/EIS, Section D.3 (Subsections D.3.1.3 (see KOPs 14a, 14b, and 14c), D.3.3.3 (Impact VIS-1, Impact VIS-3, and Impact VIS-5 for the Tule Wind Project)) Volume 3, Common Response VIS3
	<u>Visual impacts from new lighting sources</u>	Volumes 1 and 2, Final EIR/EIS, Section D.3 (Subsection D.3.3.3 (Impact VIS-4 for all projects))
<u>Section D.4, Land Use</u>	<u>Impacts to existing community character resulting from large scale and visibility of project components</u>	Volumes 1 and 2, Final EIR/EIS, Section D.4 (Subsection D.4.3.3, Impact LU-3 for all projects) Volume 2, Final EIR/EIS, Appendix 7 (Land Use Consistency Tables) Volumes 1 and 2, Final EIR/EIS, Section D.3 (Subsection D.3.3.3, Impact VIS-3 for all projects)
<u>Section D.5, Wilderness and Recreation</u>	<u>Project impacts to wilderness and recreation areas (including reduced visitation)</u>	Volumes 1 and 2, Final EIR/EIS, Section D.5 (Subsection D.5.3.3, Impact WR-1 through WR-4 for all projects)
<u>Section D.7, Cultural and Paleontological Resources</u>	<u>Sufficiency of Native American consultation process</u>	Volumes 1 and 2, Final EIR/EIS, Section D.7 (Subsection D.7.1.2 within Traditional Cultural Properties and Resources of Religious of Cultural Significance discussion and D.7.3.1 within the

Table ES-3 (Continued)

Draft EIR/EIS Section	Comments	Where Addressed in Final EIR/EIS
		<u>Traditional Cultural Properties discussion</u> <u>Volume 3, Common Response CUL1</u>
	<u>Adequacy of EIR/EIS identification and avoidance of Kumeyaay sites</u>	<u>Volumes 1 and 2, Final EIR/EIS, Section D.7 (Subsection D.7.1.2 for the ECO, Tule, and ESJ Gen-Tie Projects, as well as Section D.7.3.3, Impact CUL-1 through CUL-3 for all projects)</u> <u>Volume 3, Common Response CUL2</u>
	<u>Adequacy of cumulative cultural resource impact analysis</u>	<u>Volumes 1 and 2, Final EIR/EIS, Section D.7 (Subsection D.8.3.3, Impact CUL-3 for the Proposed PROJECT)</u> <u>Volumes 1 and 2, Final EIR/EIS, Section F (Subsection F.3.6, Impact CUL-1 through CUL-4 for All Reasonably Foreseeable Projects)</u> <u>Volume 3, Common Response CUL3</u>
<u>Section D.8, Noise</u>	<u>Adequacy of existing ambient sound level calculations</u>	<u>Volume 3, Common Response NOI1</u>
	<u>Need for analysis of audible and inaudible sound during operations of Tule Wind Turbines</u>	<u>Volume 3, Common Response NOI2</u>
	<u>Need for analysis of low-frequency noise and infrasound associated with operation of the Tule Wind Project</u>	<u>Volume 3, Common Responses NOI4, NOI5, NOI6</u>
	<u>Adequacy of calculation of operational noise generated by proposed wind turbines/inadequate analysis of impacts to sensitive receptors</u>	<u>Volume 3, Common Responses NOI7, NOI8, NOI9, NOI10, NOI11</u>
	<u>Appropriateness of 1,000-foot setback from wind turbines to residences and other sensitive receptors</u>	<u>Volume 3, Common Responses NOI5, NOI12</u>
	<u>Turbines not designed with appropriate noise control considerations (including controls to ensure consistency with future acceptable noise and sound thresholds)</u>	<u>Volume 3, Common Responses NOI13, NOI14</u>
<u>Section D.10, Public Health and Safety</u>	<u>Lack of analysis of health impacts (including shadow flicker, EMF) resulting from operation of proposed wind turbines</u>	<u>Volume 3, Common Responses PHS1, PHS3, PHS-5, PHS6, NOI5, NOI2</u>
	<u>Lack of analysis of stray voltage or “dirty electricity”</u>	<u>Volume 3, Common Response PHS2</u>
<u>Section D.12, Water Resources</u>	<u>Water demand and resources for construction</u>	<u>Volumes 1 and 2, Final EIR/EIS, Section D.12 (Subsection D.12.3.3, Impact HYD-4 for all projects), Section D.14 (Subsection D.14.3.3, Impact PSU-3 for all projects)</u> <u>Volume 3, Common Response WR1</u>

Table ES-3 (Continued)

<u>Draft EIR/EIS Section</u>	<u>Comments</u>	<u>Where Addressed in Final EIR/EIS</u>
<u>Section D.15, Fire and Fuels Management</u>	<u>Local fire station staffing and capability to adequately respond to a fire generated by a Proposed PROJECT and/or location of project in high hazard area</u>	<u>Volumes 1 and 2, Final EIR/EIS, Section D.15 (Subsection D.15.1 Existing Setting)</u> <u>Volume 3, Common Responses FIRE1, FIRE4</u>
	<u>Increased fire hazards and wildfire hazards can be reduced with undergrounding project alternative</u>	<u>Volume 3, Common Responses FIRE2, FIRE-5</u>
	<u>Increased insurance premiums or decline of coverage as a result of the Proposed PROJECT</u>	<u>Volume 3, Common Responses FIRE3, FIRE2</u>
	<u>Updated project information and fire impacts</u>	<u>Volumes 1 and 2, Final EIR/EIS, Section D.15 (Subsection D.15.3.3, Impact FF-2 and FF-3 for all projects)</u> <u>Volume 3, Common Response FIRE5</u>
	<u>Confusion regarding Mitigation Measure FF-6, FireSafe Council Funding</u>	<u>Volumes 1 and 2, Final EIR/EIS, Section D.15 (Subsection D.15.3.3, Impact FF-3, Mitigation Measure FF-6 as applicable for all projects)</u> <u>Volume 3, Common Response FIRE6</u>
<u>Section D.16, Social and Economic Conditions</u>	<u>Loss of property values resulting from the Proposed PROJECT</u>	<u>Volumes 1 and 2, Final EIR/EIS, Section D.16 (Subsection D.16.3.3, Impact SOC-3 for all projects)</u> <u>Volume 3, Common Response SOC1</u>
	<u>Loss of revenue for businesses in the project area</u>	<u>Volumes 1 and 2, Final EIR/EIS, Section D.16 (Subsection D.16.3.3, Impact SOC-2 for all projects)</u>
<u>Section D.18, Climate Change</u>	<u>Lack of quantification of greenhouse emission reduction achieved</u>	<u>Volume 3, Common Response CC1</u>
	<u>Lack of analysis regarding the effects of climate change on the Proposed PROJECT</u>	<u>Volume 3, Common Response CC2</u>
<u>Section F, Cumulative Impacts</u>	<u>Adequacy of cumulative impact analysis/lack of consideration in EIR/EIS of project throughout the southwestern U.S.</u>	<u>Volume 3, Common Response CUM1</u>

As shown in Table ES-3, areas of concern/issues identified during the Draft EIR/EIS review process are addressed in the appropriate sections of the Final EIR/EIS. Responses to concerns raised during public review of the Draft EIR/EIS are provided in Volume 3 of the Final EIR/EIS.

Recurring comments on the Draft EIR/EIS are addressed through common responses that are provided in Section 2 of Volume 3 of the Final EIR/EIS.

ES.5 Project Alternatives

ES.5.1 Range of Alternatives Considered

Alternatives considered in this EIR/EIS include those considered by the applicants, the CPUC, and the BLM, as well as those identified by the general public and other agencies during the public scoping period (December 28, 2009, through February 15, 2010).

The alternatives screening process is described in greater detail in Section C of this EIR/EIS. This process culminated in the identification and screening of over 40 potential alternatives to the Proposed PROJECT in the following categories:

Alternatives to the ECO Substation Project: Twenty-one alternatives to the ECO Substation Project were evaluated, including nine alternative locations for the ECO Substation; one alternative location for the Boulevard Substation; five 138 kV transmission design, routing, and undergrounding alternatives; and six system alternatives.

Alternatives to the Tule Wind Project: Twelve alternatives to the Tule Wind Project were evaluated, including seven alternative location/configurations and five design alternatives.

Alternatives to the ESJ Gen-Tie Project: Five alternatives to the ESJ Gen-Tie Project were evaluated, including undergrounding of the 230 kV gen-tie, undergrounding of the 500 kV gen-tie (both at the same location as the proposed aboveground options), overhead alternative alignment routes for the 230 kV and 500 kV gen-ties toward the east, and an undergrounding alternative alignment route for the 230 kV gen-tie toward the east.

Alternatives to the Campo, Manzanita, and Jordan Wind Energy Projects: The Campo, Manzanita, and Jordan wind energy projects are evaluated under the other energy alternative and the No Project/No Action Alternative. Project-specific information has not been developed in order to provide for a full evaluation of these wind energy projects and any alternatives developed in respect to these projects would be speculative. Once sufficient project-specific information has been developed, alternatives will be discussed in detail in further environmental review of these projects.

Energy Alternatives: Three energy alternatives were considered, including energy efficiency, DG including rooftop solar panels, and alternative fuels.

Of the more than 40 alternatives considered, 12 project alternatives and 4 no project/no action alternatives are carried forward for full analysis in this EIR/EIS. As described in Section C of this EIR/EIS, alternatives that were eliminated from further consideration were not carried forward for full analysis as they did not meet project objectives, feasibility or environmental effectiveness criteria.

ES.5.2 Alternatives Carried Forward

The following alternatives are those selected through the alternative screening process (described in Section C of this EIR/EIS) for detailed EIR/EIS analysis. Each of these alternatives meets most or all of the basic project objectives as identified by the CPUC and fulfills the purpose and need as identified by the BLM, is feasible, and potentially avoids or reduces environmental effects of the Proposed PROJECT.

ES.5.2.1 ECO Substation Project Alternatives

Of the 21 alternatives considered, an alternative to the ECO Substation Site, as well as three transmission design, routing, and undergrounding alternatives have been selected for detailed analysis in this EIR/EIS. The CPUC has the sole responsibility in making a decision on the proposed ECO Substation Project, including which, if any, of the four alternatives or variations and/or combination of those alternatives evaluated in this EIR/EIS should be adopted, with the exception of a 1.5-mile portion of the proposed 138 kV transmission line between ~~milepost (MP)~~ 0.1 and 1.6, for which the BLM has sole responsibility.

ECO Substation Alternative Site. Under this alternative, the proposed ECO Substation would be located 700 feet east of the proposed ECO Substation Site with the northwest corner of the western ECO Substation pad removed, the SWPL Loop-In configuration would be changed, and the 138 kV transmission line would be extended to a total length of 13.4 miles. In addition, the access road to the ECO Substation would go along the west and southern side of the substation site, rather than along the north. Furthermore, the location of steel poles 76, 77, 91, 99, 102, 104, and 105 along the 138 kV transmission line would be shifted to avoid impacts to cultural resources. Other changes include one additional staging area, three additional pole sites, minor additions in new access roads, and permanent maintenance pads, as well as one retention pond instead of two. All other elements of the proposed ECO Substation Project would remain as described in Section B, Project Description, of this EIR/EIS.

ECO Partial Underground 138 kV Transmission Route Alternative. For this alternative, the proposed ECO Substation Project would be the same as proposed with the exception of undergrounding two segments that the approximately 4-mile-long portion of the proposed 138 kV transmission line, including an approximate 4-mile-long portion between the SWPL and

Boulevard Substation (from MP 9 to Boulevard Substation) and an approximate 2.7-mile portion along Old Highway 80 and Carrizo Gorge Road (from MP 0.3 to 2.4) would be installed underground rather than overhead on transmission line poles. The segment would then rejoin with the proposed overhead 138 kV transmission line route adjacent to SWPL.

ECO Highway 80 138 kV Transmission Route Alternative. For this alternative, the proposed ECO Substation Project would be the same as described in Section B, Project Description, of this EIR/EIS, with the exception that this alternative replaces the proposed 138 kV transmission line route from approximately MP 5.8 to 13.3 and instead would install the proposed 138 kV transmission line along Old Highway 80 where it would follow and overbuild an existing electrical distribution line. The proposed Old Highway 80 segment would connect the 138 kV transmission line from near the intersection of Highway 80 and the SWPL ROW to the Boulevard Substation. Overbuilding along the distribution line would require the removal and replacement of wooden poles with taller, steel poles. Total length of the proposed 138 kV transmission line would be 10.6 miles, compared with the proposed 13.3-mile-long, 138 kV transmission line.

ECO Highway 80 Underground 138 kV Transmission Route Alternative. This alternative would be the same as described for the ECO Highway 80 138 kV Transmission Route Alternative with the exception that the proposed 138 kV transmission line would be installed underground within the existing ROW along Old Highway 80.

ES.5.2.2 Tule Wind Project Alternatives

Of the 12 alternatives considered, the following 5 configuration and design alternatives have been selected for detailed analysis in the EIR/EIS. The BLM, BIA, Ewiiapaayp Band of Kumeyaay Indians, California State Lands Commission, and County of San Diego have responsibility in making a decision on the proposed Tule Wind Project, including which, if any, of the five alternatives or variations and/or combinations of those alternatives evaluated in this EIR/EIS should be adopted.

Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/Operations and Maintenance (O&M) Facility on Rough Acres Ranch. Under this alternative, the proposed Tule Wind Project would consist of 128 turbines ~~be the same as proposed with the exception that~~ and the proposed O&M and collector substation facilities would be co-located on Rough Acres Ranch (T17S R7E Sec. 9), approximately 5 miles south of the originally proposed site. In addition, under this alternative the temporary concrete batch plant would be moved from its proposed location on BLM jurisdictional lands to Rough Acres Ranch and the proposed overhead collector line located west of Lost Valley Rock would be relocated to east of Lost Valley Rock and constructed within the proposed Tule Wind Project 138 kV alignment that would be vacated as a result of the O&M facility and collector substation location shift. Moving the O&M and collector substation facilities

to this alternative location would result in an increase in the length of the 34.5 kV overhead collector lines to connect the wind turbines to the substation, from 9.3 miles (proposed) to 17 miles. However, the underground collector lines would decrease in distance from approximately 35.1 miles to 28.9 miles, (proposed) to 27 miles, The 138 kV transmission line would decrease in distance as a result of this alternative from 9.2 miles (proposed) to 4.3.8 miles, and the number of transmission line poles would decrease from 126-80 poles (proposed) to 49-44 poles. Under this alternative, the 138 kV gen-tie transmission line would run from the alternative collector substation approximately 1 mile east, south along McCain Valley Road, and then west along Old Highway 80 until connecting to the proposed Boulevard Substation rebuild component of the ECO Substation Project. This alternative would increase the land disturbance by 12-49.3 acres, from 712-725.3 acres (proposed) to 724-774.6 acres.

Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch. This alternative would consist of 128 turbines and would essentially be the same as described in Tule Alternative 1 for the Tule Wind Alternative 2, Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch, with the exception that the proposed 138 kV gen-tie transmission line would run underground from the alternative collector substation approximately 1 mile east, south underground along McCain Valley Road, and then west underground along Old Highway 80 until reaching the Boulevard Substation rebuild component of the ECO Substation Project.

Tule Wind Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch. This alternative would consist of 128 turbines and would essentially be the same as described in Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch, with the exception that the proposed 138 kV gen-tie transmission line would run from the alternative collector substation approximately 3 miles west to Ribbonwood Road, continue south along Ribbonwood Road, and then east along Old Highway 80 until connecting to the proposed Boulevard Substation rebuild component of the ECO Substation Project. As a result of this alternative, the 138 kV gen-tie transmission line would decrease in distance from 9.2 miles (proposed) to 5.4 miles. The length of the overhead collector line system would increase in distance by 7.7 miles from 9.3 to 17 miles. Additionally, under this alternative, transmission line poles would decrease from 126-80 poles (proposed) to 59-60 poles, and the number of collector line poles would increase from 250 to 452 poles. This alternative would increase the land disturbance by 16-54.7 acres, from 712-725.3 acres (proposed) to 728-780 acres.

Tule Wind Alternative 4, Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch. This alternative would consist of 128 turbines and would essentially be the same as described in Tule Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch, with the exception that the proposed 138 kV

transmission line would run underground from the alternative collector substation approximately 3 miles west to Ribbonwood Road, continue south underground along Ribbonwood Road, and then east underground along Old Highway 80 until reaching the Boulevard Substation.

Tule Wind Alternative 5, Reduction in Turbines. Under this alternative, the proposed Tule Wind Project would consist of 65 turbines ~~be the same as proposed with the exception that this alternative would removal of 62-63 specific turbines to include~~ locations out of the 134 turbines proposed. The proposed action would erect 11 six turbines adjacent to the BLM In-Ko-Pah Mountains Area of Critical Environmental Concern (ACEC) being S1, R4, (R8), R8, R9, and R10 and 57+ turbines adjacent to wilderness areas on the western side of the project site including all turbines in the J, K, L, M, N, P, and Q strings. Figure C-2B, Tule Wind Project Alternatives Map, depicts the locations of proposed wind turbines.

ES.5.2.3 Alternatives to the ESJ Gen-Tie Project

Of the five alternatives considered, the following three alternatives have been selected for detailed analysis in the EIR/EIS. The County of San Diego will have the sole responsibility in making a decision on the proposed ESJ Gen-Tie Project, including which, if any, of the alternatives evaluated in this EIR/EIS should be adopted in consideration of a major-use permit. It should be noted that in making a decision, it is recommended that the County of San Diego consult with the U.S. Department of Energy (DOE) and the DOE's decision-making process regarding the issuance of a Presidential Permit for the ESJ Gen-Tie Project and the CPUC in the CPUC's decision-making process regarding the ECO Substation Project.

ESJ 230 kV Gen-Tie Underground Alternative. Under this alternative, the 230 kV gen-tie line would be placed underground rather than aboveground. It would follow the same proposed path as described for the Proposed PROJECT.

ESJ Gen-Tie Overhead Alternative Alignment. Under this alternative, both the 230 kV and 500 kV gen-tie options would shift approximately 700 feet east of the Proposed PROJECT to connect with the ECO Substation Alternative Site.

ESJ Gen-Tie Underground Alternative Alignment. Under this alternative, the 230 kV gen-tie line would shift approximately 700 feet east and be undergrounded to connect with the ECO Substation Alternative Site.

ES.5.2.4 No Project/No Action Alternatives

No Project Alternative 1—No ECO Substation, Tule Wind, ESJ Gen-Tie, Campo, Manzanita, or Jordæon Wind Energy Projects. This alternative would result in the ECO

Substation, Tule Wind, and ESJ Gen-Tie, as well as the Campo, Manzanita, and Jordaeñ wind energy projects not being constructed.

No Project Alternative 2—No ECO Substation Project. This alternative would result in the ECO Substation Project not being constructed. The proposed Tule Wind and ESJ Gen-Tie projects would be constructed; however, each of these projects would be required to interconnect to existing substations elsewhere in the project area or to construct their own transmission substations.

No Project Alternative 3—No Tule Wind Project. Under this alternative, the ROW would not be granted by the BLM and the Tule Wind Project would not be constructed. The ECO Substation and ESJ Gen-Tie projects would be constructed.

No Project Alternative 4—No ESJ Gen-Tie Project. Under this alternative, the ESJ Gen-Tie Project would not be constructed, and the renewable energy generated in Baja California, Mexico, would not reach the U.S. market via the ECO Substation. The ECO Substation and Tule Wind projects would be constructed.

ES.6 Summary of Environmental Analysis

A joint EIR/EIS must comply with both federal NEPA and state CEQA Guidelines. CEQA requires that each effect having a significant impact be identified in the EIR. Therefore, reference to “significant” or “less-than-significant” environmental effects in this EIR/EIS is considered a CEQA-related finding consistent with CEQA Guidelines, Section 21082.2 (14 CCR 15000 et seq.). NEPA does not require such a finding for an EIS; rather, it requires that an agency avoid or minimize adverse effects to the extent practicable. Under NEPA, a Record of Decision supported by an EIS may include a determination by the lead agency that the project may have a “significant effect” on the quality of the environment. Consequently, references to significant impacts in this document are made to fulfill the requirements of CEQA pursuant to the standards of California law. Under NEPA, impacts, whether significant or not, are disclosed and analyzed. No representation as to significance is made that represents an assessment as to the magnitude or intensity of an individual resource impact under the requirement of federal law. The following classifications were uniformly applied to denote the significance of environmental impacts under CEQA. NEPA does not require such a finding. Under NEPA, since significance is evidenced by the preparation of an EIS, impacts are either adverse or not. Impacts under CEQA are classified as follows:

- Class I:** Significant – cannot be mitigated to a level that is less than significant
- Class II:** Significant – can be mitigated to a level that is less than significant
- Class III:** Less than significant, no mitigation required

Class IV: Beneficial impact
No Impact: No impact identified.

Table ES-~~52~~ located at the end of this executive summary provides a summary of Proposed PROJECT impacts and classification of impacts under CEQA, mitigation measures, and residual impacts. As shown in Table ES-~~52~~, the Proposed PROJECT, including the Campo, Manzanita, and Jordan wind energy projects, as a whole would have adverse impacts that cannot be mitigated and under CEQA would be significant and unmitigable (Class I) impacts to biological resources, visual resources, cultural resources, noise, air quality, water resources, and fire and fuels management. Following is a summary of the environmental impact conclusions for the project and each of the project alternatives.

ES.6.1 ECO Substation Project

As summarized in Table ES-~~53~~, the proposed ECO Substation Project would have unavoidable adverse impacts under NEPA ~~that cannot be mitigated~~ and under CEQA would be significant and unmitigable (Class I) impacts to the following issue areas: biological resources (direct loss of Quino checkerspot butterfly habitat), visual resources (impacts to scenic vistas and existing visual character), cultural resources (potential adverse change to traditional cultural properties), short-term construction noise, air emissions (NO_x emissions), and fire and fuels management (increased fire probability from project facilities). Impacts in the remaining 11 issue areas were either found to be not adverse under NEPA and under CEQA less than significant (Class III), and/or following the implementation of applicant proposed measures (APMs) and mitigation measures presented in this EIR/EIS, to be adverse but mitigable under NEPA and under CEQA less than significant with mitigation implemented (Class II).

The ECO Substation Project including project alternatives was determined to be consistent with all applicable federal plans and policies. The County of San Diego has no jurisdiction over the ECO Substation Project and, therefore, local policies, plans, and regulations do not apply.

Four alternatives to the ECO Substation Project, in addition to the No Project/No Action Alternative, were identified for evaluation in this EIR/EIS. A comparison of the environmental effects for the proposed ECO Substation Project and each of the alternatives is provided in Table ES-~~63~~ located at the end of the Executive Summary.

As summarized in Table ES-~~34~~, the ECO Substation Alternative Site, combined with the ECO Partial Underground 138 kV Transmission Route Alternative, would cause the least environmental impact.

Similar to the proposed ECO Substation Project and other project alternatives considered, this alternative would have unavoidable adverse impacts under NEPA and significant and unmitigable (Class I) impacts under CEQA in the following issue areas: biological resources, visual resources, cultural resources, short-term construction noise, and air emissions, and fire and fuels management. Impacts in the remaining 11 issue areas would either be not adverse under NEPA and under CEQA would be considered less than significant (Class III); and/or following implementation of mitigation measures presented in this EIR/EIS, would be adverse but mitigable under NEPA, and under CEQA considered less than significant with mitigation implemented (Class II).

While this alternative would increase short-term construction-related impacts to air, noise, water, erosion, and biological resources, short-term impacts to these resources would occur within the same area as the proposed ECO Substation Project and would be mitigable in that adverse impacts were avoided or minimized under NEPA, and under CEQA can be mitigated to less than significant (Class II). This alternative would reduce some impacts to cultural resources from Class II to Class III through avoidance and would reduce visual resource and fire impacts associated with undergrounding two segments ~~an approximate 4-mile portion~~ of the proposed 138 kV transmission line project component, an approximate 4-mile portion between MP 9 and the Boulevard Substation as well as an approximate 2.7-mile portion along Old Highway 80 and Carrizo Gorge Road, from unavoidable adverse under NEPA and significant and unavoidable (Class I) under CEQA, to not adverse under NEPA and less than significant (Class III) under CEQA.

While the two 138 kV transmission line alternatives utilizing an existing utility ROW along Old Highway 80 would reduce the overall length of the proposed 138 kV transmission line from 13.3 miles (as proposed) to 10.6 miles and would potentially reduce some of the Proposed PROJECT impacts as described previously, they would also create more substantial impacts due to the proximity to Old Highway 80, a greater number of sensitive residences, additional critical habitat for the Quino checkerspot butterfly, and siting/slope constraints requiring additional construction impacts when compared to the Proposed PROJECT and, therefore, were not determined to be environmentally superior or preferable.

Under the No Project Alternative 2, No ECO Substation Project, the ECO Substation Project would not be built, and the conditions in the existing energy grid and local environment would remain the same. Without the ECO Substation Project, there would not be an interconnection hub that would enable renewable generation such as the ESJ Gen-Tie or Tule Wind projects to connect to the grid. Additionally, energy transmission would remain unreliable in Boulevard, Jacumba, and the surrounding communities. Planned generation facilities in the project area would require additional miles of transmission line to reach an interconnection point and possibly multiple connection points on SDG&E's existing transmission system. In addition, new

substations to be constructed by each generator might be required to connect the generation facilities to the grid. Development of these facilities under the No Project Alternative 2 may actually increase impacts when compared to the ECO Substation Project; therefore, it was determined not to be environmentally superior or preferable.

ES.6.2 Tule Wind Project

The proposed Tule Wind Project would have unavoidable adverse impacts under NEPA ~~that cannot be mitigated~~ and under CEQA would be significant and unmitigable (Class I) impacts in the following issue areas: biological resources (bird/golden eagle strikes with turbines), visual resources (impacts to scenic vistas, existing visual character, light/glare, and inconsistency with policies/plans), cultural resources (potential adverse change to traditional cultural properties), and short-term construction noise and air emissions, ~~and wildland fire and fuels management~~. Impacts to the remaining ~~11~~12 issue areas were either found to be not adverse under NEPA and under CEQA less than significant (Class III); and/or following implementation of APMs and mitigation measures presented in this EIR/EIS, to be adverse but mitigable under NEPA and under CEQA less ~~than~~than significant with mitigation implemented (Class II).

The Tule Wind Project and alternatives ~~was~~were determined to be consistent with the County of San Diego Existing General Plan ~~Land Use Element and~~ Energy Element, Zoning Ordinance, and all applicable federal plans and policies. With implementation of mitigation measures identified in Section D of this EIR/EIS and with approval of pending amendments discussed in Appendix 7 of this EIR/EIS, the Tule Wind Project was determined to be consistent with the County of San Diego Existing General Plan Land Use, Conservation, Public Facility, and Seismic Elements, and the Mountain Empire Subregional Plan.

Five alternatives to the Tule Wind Project, in addition to the No Project/No Action Alternative, were identified for evaluation in this EIR/EIS. A comparison of the environmental effects for the proposed Tule Wind Project and each of the alternatives is provided in Table ES-~~73~~ located at the end of the Executive Summary.

As summarized in Table ES-4, the Tule Wind Alternative 5, Reduction in Turbines, combined with Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch, would cause the least environmental impact. This alternative would reduce the overall length of the proposed 138 kV gen-tie transmission line from 9.6-2 miles to 4-3.8 miles and would develop the O&M and collector substation on a more disturbed site. Similar to the proposed Tule Wind Project, this alternative would have unavoidable adverse impacts under NEPA and significant and unmitigable (Class I) impacts under CEQA in the following issue areas: short-term construction noise and air emissions, cultural resources, long-term visual impacts, ~~fire and fuels management~~, and biological impacts (golden eagle/bird collisions with turbines).

Unavoidable adverse impact under NEPA and significant unavoidable (Class I) impacts under CEQA to golden eagles would be reduced with the removal of turbines within areas considered high risk of any known active golden eagle nest. Although this alternative would substantially reduce the risk of golden eagle mortality, the risk of mortality due to collision with operating turbines by golden eagle remains an unavoidable adverse impact under NEPA and a significant and unmitigable impact under CEQA due to the fact that the remaining turbines would continue to present risk, albeit with lower risk of collision to golden eagles foraging in the vicinity of the project. Impacts in the remaining ~~44~~12 issue areas ~~would~~were found to be either not adverse under NEPA and under CEQA less than significant (Class III); and/or following implementation of APMs and mitigation measures presented in this EIR/EIS, would be adverse but mitigable under NEPA, and under CEQA less than significant with mitigation implemented (Class II).

While this alternative would increase short-term construction-related impacts to air, noise, water, and erosion due to trenching and boring of the 138 kV gen-tie, short-term impacts to these resources would occur within the same area as the Proposed Tule Project and can be mitigated to less than significant. This alternative would reduce impacts to golden eagles by siting turbines farther away from nesting eagles and would reduce long-term visual ~~and fire~~ impacts associated with the undergrounding of the 138 kV gen-tie project component from significant and unavoidable (Class I) to less than significant (Class III) and, therefore, from a strictly environmental perspective, ranks as the environmentally superior alternative. However, this alternative would remove the ~~47~~18 turbines proposed on the Ewiiapaayp Indian Reservation; thereby affecting the Ewiiapaayp Band of Kumeyaay Indians' wind and solar energy resources policies to develop renewable energy projects to serve economic and social needs of the reservation. In addition, ~~27~~35 turbines would be removed from lands ~~administered~~managed by the BLM, 7 turbines would be removed from lands administered by the CSLC, and ~~44~~5 from lands under the jurisdiction of the County of San Diego.

The Tule Wind Alternatives 3 and 4 (aboveground and underground Gen-Tie Route 3) would reduce the overall length of the proposed 138 kV transmission line from ~~9.6~~2 to 5.4 miles when compared to the proposed Tule Wind Project and would potentially reduce some of the Proposed Tule Project impacts, as described previously. These alternatives would also create more impacts due to the increased length of the gen-tie required when compared to Tule Wind Alternatives 1 and 2 (Gen-Tie Route 2); therefore, these alternatives were not determined to be environmentally superior or preferable.

Under the No Project Alternative 3, No Tule Wind Project, the Tule Wind Project would not be built and the existing conditions on the project site would remain. However, the ECO Substation Project and ESJ Gen-Tie Project would be developed. Without the Tule Wind Project, approximately ~~200~~201 MW of proposed renewable energy production would not be developed

on lands in the southeastern portion of San Diego County. While the construction and operations impacts would be reduced under this alternative, the unavoidable adverse (Class I under CEQA) impacts associated with the ECO Substation and ESJ Gen-Tie projects would occur under this alternative. Given that the No Project Alternative 3, No Tule Wind Project, would not reduce impacts associated with the ECO Substation and ESJ Gen-Tie projects and would not realize the proposed 200–201 MW of renewable energy production, thereby negatively affecting ~~the region's~~ SDG&E's ability to meet California's renewable portfolio standard (RPS) ~~program and associated Executive Order requirements~~ targets to increase renewable energy and reduce greenhouse emissions, it was determined not to be environmentally superior or preferable.

ES.6.3 ESJ Gen-Tie Project

The proposed ESJ Gen-Tie Project would have unavoidable adverse impacts under NEPA that cannot be mitigated and under CEQA would be significant unmitigable impacts (Class I) in the following issue areas: visual resources (although visual impacts from the ESJ Gen-Tie Project are found to be less than significant, visual impacts from the ESJ Phase I Wind development in Mexico are significant and unavoidable), ~~cultural resources (potential adverse change to traditional cultural properties)~~ and short-term construction air emissions, and fire and fuels management. Impacts in the remaining ~~153~~ issue areas where either found to be not adverse under NEPA and under CEQA less than significant (Class III); and/or following implementation of APMs and mitigation measures presented in this EIR/EIS, to be adverse but mitigable under NEPA, and under CEQA would be considered less than significant with mitigation implemented (Class II).

The ESJ Gen-Tie Project and alternatives were determined to be consistent with the County of San Diego Existing General Plan Land Use Element and Energy Element, and the County's Zoning Ordinance. With implementation of mitigation measures identified in Section D of this EIR/EIS, the ESJ Gen-Tie Project was determined to be consistent with the County of San Diego Existing General Plan Conservation, Public Facility, and Seismic elements, and the Mountain Empire Subregional Plan.

Three alternatives to the ESJ Gen-Tie Project, in addition to the No Project/No Action Alternative, were identified for evaluation in this EIR/EIS. A comparison of the environmental effects for the Proposed ESJ Gen-Tie Project and alternatives is provided in Table ES-~~84~~ 85.

As summarized in Table ES-~~84~~ 85, the ESJ Gen-Tie Overhead Alternative Alignment would cause the least environmental impact. This alternative would have similar impacts to the proposed ESJ Gen-Tie Project; therefore, it would rank equally with the Proposed ESJ Gen-Tie Project. This alternative ranks as the environmentally superior alternative for the ESJ Gen-Tie as it would be required to connect the environmentally superior alternative for the ECO Substation Project,

which shifts the ECO Substation 700 feet to the east, as summarized in Section ES.5.2.1. Similar to the proposed ESJ Gen-Tie Project, this alternative would have unavoidable adverse impacts under NEPA and significant unmitigable (Class I) impacts under CEQA to visual resources (for the ESJ Phase I Wind development in Mexico), ~~cultural resources, and~~ short-term construction air emissions, ~~and fire and fuels management~~. Impacts to the remaining 153 issue areas would be either not adverse under NEPA and under CEQA considered less than significant (Class III); and/or following implementation of mitigation measures presented in this EIR/EIS, would be adverse but mitigable under NEPA, and considered less than significant under CEQA with mitigation implemented (Class II).

~~While the ESJ 230 kV Gen-Tie Underground Alternative and ESJ Gen-Tie Underground Alternative Alignment would reduce long term impacts related to fire hazard, this reduction would only occur for the less than one mile gen-tie line. In the context of developing the ECO Substation and the Phase I ESJ Gen-Tie Wind development in Mexico, these impacts would remain significant and unavoidable (Class I) even with the undergrounding of the gen-tie line.~~ While these undergrounding alternatives would reduce the already less-than-significant visual impacts resulting from the ESJ Gen-Tie Project, they would not reduce the significant and unavoidable visual impacts associated with the Phase I ESJ Gen-Tie Wind development in Mexico. Therefore, the minimal reduction in impacts associated with the undergrounding of the less-than-one-mile gen-tie (and removal of five poles/lattice towers) is not warranted given the increased short-term construction impacts and long-term impacts associated with the ECO Substation and Phase I ESJ Gen-Tie Wind development, both of which are connected by the ESJ gen-tie. Therefore, when compared to the proposed ESJ Gen-Tie Project and ESJ Gen-Tie Overhead Alternative Alignment, the undergrounding alternatives were not determined to be environmentally superior.

Under the No Project Alternative 4, No ESJ Gen-Tie Project, the ESJ Gen-Tie Project would not be built, and the existing conditions on the project site would remain the same. Construction-related impacts associated with the proposed ECO Substation and Tule Wind projects would occur under this alternative, as well as the indirect impacts associated with the Phase I ESJ Gen-Tie Wind development in Mexico. Under this alternative, it is likely that an alternative gen-tie would be constructed to connect the Phase I ESJ Gen-Tie Wind development to SDG&E's system. The impacts associated with this alternative gen-tie would be expected to be similar to those described for the proposed ESJ Gen-Tie Project and alternatives evaluated, but could vary depending on length of the gen-tie line and the location pursued. As it is unknown whether the No Project Alternative 4, No ESJ Gen-Tie Project, would actually reduce impacts and it may in fact increase impacts, it was determined not to be environmentally superior.

ES.7 Anza-Borrego Desert State Park

The largest state park in California, Anza-Borrego Desert State Park is located in the eastern part of the Proposed PROJECT study area and State Park lands including three state wilderness areas are located adjacent to BLM jurisdictional lands in the McCain Valley and Table Mountain areas. The topics listed below are of specific concern to Anza-Borrego Desert State Park and were identified in comment letters on the Notice of Intent and on the Draft EIR/EIS submitted by the California Department of Parks and Recreation. The environmental issues listed below have been addressed in this EIR/EIS.

Biological Resources

Impacts to Migratory Birds. Potential adverse impacts to migratory birds in the vicinity of Anza-Borrego Desert State Park during construction and operation activities associated with the Proposed PROJECT have been addressed in EIR/EIS Section D.2, Biological Resources (see Section D.2.3.3, Impact BIO-8 for the Proposed PROJECT) and were determined to adverse but mitigable under NEPA/less than significant with implementation of mitigation under CEQA (Class II).

Golden Eagles. Potential adverse impacts to golden eagles in the vicinity of Anza-Borrego Desert State Park during construction activities have been addressed in EIR/EIS Section D.2, Biological Resources (see Section D.2.3.3, Impact BIO-7 for the Proposed PROJECT) and were determined to be adverse but mitigable under NEPA/less than significant with implementation of mitigation under CEQA. Collision risks for golden eagles with proposed wind turbines have been addressed in Section D.2, Biological Resources (see Section D.2.3.3, Impact BIO-10 for the Tule Wind Project and the Proposed PROJECT) and were determined to be an unavoidable adverse impact under NEPA and a significant unmitigable impact under CEQA. The EIR/EIS golden eagle impact evaluation is based on a helicopter survey within a 10-mile radius of the proposed Tule Wind Project conducted by Wildlife Research Institute in spring 2010.

Sensitive and Species of Special Concern. Potential adverse impacts to sensitive and species of special concern in the vicinity of Anza-Borrego Desert State Park, including northern red diamond rattlesnake (*Crotalus ruber*), barefoot banded-gecko (*Coleonyx switaki*), Blainville's horned lizard (*Phrynosoma blainvillii*, previously coast horned lizard), and orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), resulting from construction of the ECO Substation, Tule Wind, and ESJ Gen-Tie Projects have been addressed in EIR/EIS Section D.2, Biological Resources (see Section D.2.3.3, Impact BIO-7, *Reptiles* for the three projects). A determination of no impact was made for the barefoot banded gecko and impacts to the red-diamond rattlesnake, Blainville's horned lizard, and orange-throated whiptail were mitigable under NEPA and less than significant with implementation of mitigation under CEQA.

Quino Checkerspot Butterfly. Potential adverse impacts to Quino checkerspot butterfly designated critical habitat in the vicinity of Anza-Borrego Desert State Park have been addressed in EIR/EIS Section D.2 (see Section D.2.3.3, Impact BIO-7, Quino Checkerspot Butterfly for the Proposed PROJECT) and were determined to be an unavoidable adverse impact under NEPA and a significant unmitigable impact under CEQA. Potential adverse impacts to Quino checkerspot butterfly habitat within the one-kilometer movement radius of the 2010 observation on the Tule Wind Project site have been addressed in EIR/EIS Section D.2, Biological Resources (see Section D.2.3.3, Impact BIO-7, Tule Wind Project, Quino Checkerspot Butterfly) and were determined to be adverse but mitigable under NEPA/less than significant with implementation of mitigation under CEQA (Class II).

Bats. Potential adverse impacts to bats from operating wind turbines (including impacts associated with collision and barotrauma) in the vicinity of Anza-Borrego Desert State Park have been addressed in EIR/EIS Section D.2, Biological Resources (see Section D.2.3.3, Impact BIO-10 for the Tule Wind Project) and were determined to be mitigable under NEPA/less than significant with implementation of mitigation under CEQA.

Peninsular Bighorn Sheep. Potential adverse impacts to peninsular bighorn sheep in the vicinity of Anza-Borrego Desert State Park resulting from construction activities have been addressed in EIR/EIS Section D.2, Biological Resources (see Section D.2.3.3, Impact BIO-7 (all projects), Peninsular Bighorn Sheep). A determination of no impact to peninsular bighorn sheep as a result of the ECO Substation and ESJ Gen-Tie Project was made and an impact determination of not adverse under NEPA/less than significant under CEQA was made for the Tule Wind Project. Also, construction and operational impacts to general wildlife movement and linkages are described in Section D.2.3.3, Impact BIO-9 for the Proposed PROJECT. The proximity of the ECO Substation, Tule Wind, and ESJ Gen-Tie Projects to designated critical habitat for peninsular bighorn sheep in the project area is described in EIR/EIS Section D.2, Biological Resources (see Section D.2.1.1 Regional Overview, Critical Habitat).

Viewsheds

The Final EIR/EIS includes three additional representative key observation points (KOPs 14a (Carrizo Badlands Overlook), 14b (Palm Spring), and 14c (Sombrero Peak)) located within Anza-Borrego Desert State Park to further describe the potential visual effects to State Park lands resulting from construction and operation of the Tule Wind Project. The existing conditions present at the identified representative KOPs, as well as a discussion regarding anticipated visual contrasts resulting from the visibility of proposed wind turbines from representative KOPs, is described in EIR/EIS Section D.3, Visual Resources (see Section D.3.1.1, Key Observation Points; Section D.3.1.3, Tule Wind Project; Section D.3.3.3, Impact VIS-1, VIS-3, and VIS-4 for

the Tule Wind Project; and Sections D.3.5.1 through D.3.5.5 for the Tule Wind Project Alternatives). Visual resource impacts to KOPs within Anza-Borrego Desert State Park were determined to be an unavoidable adverse impact under NEPA and an unmitigable impact under CEQA due to moderate-to-high levels of color, line, and form contrasts anticipated between wind turbines and surrounding intact natural environment and due to the high visual sensitivity of State Park users.

Wilderness and Recreation

Potential adverse impacts to State Park wilderness and recreation areas have been addressed in EIR/EIS Section D.5, Wilderness and Recreation (see Section D.5.3.3, Impact WR-3, Tule Wind Project, *State Parks*) and were determined to be not adverse under NEPA/less than significant under CEQA.

Noise

Potential adverse impacts to sensitive receptors in the project area resulting from construction and operational activities have been addressed in EIR/EIS Section D.8, Noise (see Section D.8.3.3, Impact NOI-1 through Impact NOI-4 for the ECO Substation, Tule Wind, and ESJ Gen-Tie Projects). Section D.8.4 through Section D.8.6 describes the potential adverse noise impacts to sensitive receptors resulting from construction and operation of the ECO Substation, Tule Wind, and ESJ Gen-Tie Project Alternatives. Based on the calculations provided in EIR/EIS Section D.8 (see Section D.8.3.3, Impact NOI-3, Tule Wind Project (Table D.8-11)) which provides anticipated wind turbine noise levels at McCain Valley area residences within 1 mile of a proposed wind turbine, the noise levels within the State Park during project operations are anticipated to be similar to the fluctuating noise levels present the existing McCain Valley environmental setting.

Social and Economic Impacts

Potential adverse social and economic impacts including loss of revenues for project area businesses have been addressed in EIR/EIS Section D.16, Social and Economic Impacts (see Section D.16.3.3, Impact SOC-2 for the ECO Substation, Tule Wind, and ESJ Gen-Tie Projects as well for the Proposed PROJECT). As stated in Section D.16, the potential loss of revenue from business operations would be offset by economic benefits resulting from project construction, operation, and decommissioning and therefore, under NEPA, the Proposed PROJECT would be beneficial.

Cumulative Impacts

Potential adverse cumulative impacts to all environmental resources areas, including potential impacts to resources identified by Anza-Borrego Desert State Park, have been addressed in the

this EIR/EIS (see Section F, Cumulative Scenario and Impacts, subsections Sections F.3.1 through F.3.17).

ES.8 Environmentally Superior Alternative/ Agency-Preferred Alternative

ES.78.1 CEQA Environmentally Superior Alternative/Agency-Preferred Alternative

CEQA requires that the environmentally superior alternative be selected from a range of reasonable alternatives that could feasibly attain the basic objectives of the project. Based on the analysis presented in Sections D.2 through D.18 of this EIR/EIS, the environmentally superior alternative was determined to be the No Project Alternative 1, No ECO Substation, Tule Wind, ESJ Gen-Tie, Campo, Manzanita, or Jordan wind energy projects (see Table ES-4). Under the No Project Alternative 1, the Proposed PROJECT (including the ECO Substation, Tule Wind, ESJ Gen-Tie, Campo, Manzanita, and Jordan wind energy projects) would not be constructed. All environmental impacts associated with the construction and operation of the Proposed Project would be eliminated and existing environmental conditions would be unaffected. There would be no new renewable energy source in the southeastern portion of San Diego County, and consequently, ~~the region~~ SDG&E may not meet its California RPS program ~~and associated Executive Order requirements~~ targets or to develop renewable energy on federal lands ~~in compliance to~~ comply with the Energy Policy Act of 2005. The southeastern energy transmission system servicing the Boulevard, Jacumba, and other surrounding communities would remain unstable.

CEQA Guidelines Section 15126(d)(2) further stipulates that “if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” Based on the analysis for each alternative presented in Sections D.2 through D.18, and as summarized in Section E of this EIR/EIS, the environmentally superior alternative is defined as follows:

Table ES-4
Environmentally Superior Alternative

Alternative	Jurisdiction
ECO Substation Project	
ECO Substation Alternative Site, combined with:	CPUC to consider in consultation with the County of San Diego and DOE’s decision-making process on the ESJ Gen-Tie Project
ECO Partial Underground 138 kV Transmission Route Alternative, combined with	CPUC and BLM to consider
Boulevard Substation Rebuild	CPUC to consider
Remaining components same as described for the proposed ECO Substation Project	CPUC to consider all remaining components. BLM to consider ROW Grant for proposed 138 kV transmission line from MP 0.1 to MP 1.6

Table ES-4 (Continued)

Alternative	Jurisdiction
Tule Wind Project	
Tule Wind Alternative 5, Reduction in Turbines, combined with:	County, BLM, BIA, CSLC, and Ewiiapaayp Band of Kumeyaay Indians to consider reduction of turbines on County, BLM, CSLC, and tribal lands
Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch	County of San Diego to consider in consultation with BLM, CSLC, and BIA
ESJ Gen-Tie Project	
ESJ Gen-Tie Overhead Alternative Alignment	County of San Diego to consider in consultation with DOE and CPUC

It should be noted that since the Campo, Manzanita, and Jordan wind energy projects are not defined at a project level (due to insufficient detail at this time) and are instead addressed at a program level in this EIR/EIS, these projects are not included in the environmentally superior alternative and will be considered in detail in future environmental analysis conducted for these projects. Similar to the Proposed PROJECT, the environmentally superior alternative would result in the following unavoidable adverse impacts under NEPA and unmitigable (Class I) impacts under CEQA:

~~As with the Proposed Project, the environmentally superior alternative would result in the following Class I impacts:~~

Air Quality: Short-term construction VOC, NO_x, and dust emissions associated with the Tule Wind Project, short-term construction NO_x and dust emissions associated with the ECO Substation Project, and short-term construction dust emissions associated with the ESJ Gen-Tie Project.

Noise: Short-term construction noise associated with the ECO Substation Project and Tule Wind Project.

Biological Resources: Direct loss of quino checkerspot butterfly habitat associated with the ECO Substation Project and bird/golden eagle strikes from wind turbines

Visual Character: ~~Scenic vistas, and visual character impacts associated, and new sources of light associated with the ECO Substation, Tule Wind, and ESJ Wind Phase I projects and new sources of light associated with the Tule Wind and ESJ Wind Phase I projects.~~

Fire Fuels: Possibility of fire ignition from transmission lines and interference with firefighting associated with the ECO Substation Project, ~~Tule Wind Project, and ESJ Gen-Tie Project.~~

Cultural Resources: Without confirmation that ~~that~~ Traditional Cultural Properties are not in the project area, impacts to cultural resources would remain adverse and unavoidable for the ECO Substation, and Tule Wind, ~~and ESJ Gen-Tie~~ projects.

The environmentally superior alternative would result in greater short-term and temporary air quality emissions and noise effects compared to the Proposed PROJECT, but these would be during construction and would be only short term. This alternative's long-term reduction in visual resource impacts and fire and fuels impacts (for the Tule Wind Project extending 25 years until project decommissioning), while still unmitigable, would result in a greater overall reduction in impacts when compared to the Proposed PROJECT. This alternative would reduce unavoidable adverse impacts under NEPA and unmitigable (Class I) impacts under CEQA associated with bird/golden eagle strikes from wind turbines and would reduce avian collision and electrocution risk, and, therefore, from a strictly environmental perspective, ranks as the environmentally superior alternative. However, this alternative would remove the ~~17-18~~ wind turbines proposed on the Ewiiapaayp Indian Reservation, thereby affecting the Ewiiapaayp Band of Kumeyaay Indians wind and solar energy resources policies to develop renewable energy projects to serve economic and social needs of their reservation. In addition, ~~27-33~~ turbines would be removed from lands ~~administered~~ managed by the BLM, 7 turbines would be removed from lands administered by the CSLC, and ~~4-5~~ from lands under the jurisdiction of the County of San Diego.

It should be noted that no other feasible mitigation measures or alternatives have been identified that would further reduce project impacts.

ES.78.2 BLM-Preferred Alternative

The BLM's preferred alternative per NEPA requirements ~~and pending public comment on the Draft EIS~~ for the ECO Substation project component is the ECO Substation Alternative Site, combined with ECO Partial Underground 138 kV Transmission Route Alternative, combined with Boulevard Substation Rebuild, and for the Tule Wind Project component is the Tule Wind Alternative 5, Reduction in Turbines, combined with Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch. This conclusion is based on the analysis presented in Sections D.2 through D.18.

The identification of a preferred alternative does not constitute a commitment or decision, and there is no requirement to select the preferred alternative in the record of decision. The identification of the preferred alternative may change between a draft EIS and final EIS. Various parts of separate alternatives that are analyzed in the draft can also be "mixed and matched" to develop a complete alternative in the final EIS as long as the reasons for doing so are explained.

Selection in the record of decision of an alternative other than the preferred alternative does not require preparation of a supplemental EIS.

ES.89 Issues to be Resolved

This EIR/EIS considers the full range of potential environmental impacts and issues for the Proposed PROJECT. The environmental issues addressed in the EIR/EIS have been resolved in accordance with CEQA and NEPA. As previously discussed in this section, an environmentally superior alternative under CEQA and a BLM preferred alternative under NEPA have been presented. Final selection of the Proposed ECO Substation Project, Tule Wind Project, and ESJ Gen-Tie Project, and each of the project alternatives evaluated in the EIR/EIS, will be predicated by the final decisions made by each of the lead jurisdictions, CPUC, BLM, County of San Diego, California State Lands Commission, BIA, and Ewiiapaayp Band of Kumeyaay Indians in their consideration of information presented in this EIR/EIS, as well as other factors, including purpose and need, engineering, economic cost/benefit, and public input. The proposed Campo, Manzanita, and Jordan wind energy projects would require project-specific environmental review and evaluation under all applicable environmental regulations once sufficient project-level information has been developed. A meaningful review beyond a programmatic level review would be inappropriate at this time.

Other issues will be resolved during the permitting and agency review process described in Section A, Introduction/Overview of this EIR/EIS, which will need to be resolved prior to project construction. Such permitting includes consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act for the ECO Substation and Tule Wind projects (see Appendix 9 of the Final EIR/EIS for copies of the Tule and ECO Substation Biological Opinions); USFWS determination of consistency with the Bald and Golden Eagle Protection Act for the Tule Wind Project (the USFWS-approved Avian and Bat Protection Plan and their determination of consistency for the Tule Wind Project is available for review on the CPUC project website); ACOE issuance of Clean Water Act Section 404 permits for the ECO Substation and Tule Wind projects; Section 106 consultation with the Office of Historic Preservation (see Appendix 10 of the Final EIR/EIS for copies of the Tule Wind and ECO Substation Section 106 Draft Memorandum of Agreements); California Department of Fish and Game issuance of a Fish and Game Code Section 1602 streambed alteration agreement for the ECO Substation and Tule Wind projects; Regional Water Quality Control Board issuance of Clean Water Act Section 401 water quality certifications for the ECO Substation and Tule Wind projects; issuance of two separate major-use permits from the County of San Diego; federal, state, and local fire agency approval of applicant prepared Fire Protection Plans; and DOE's consideration of a Presidential Permit for the ESJ Gen-Tie Project.

Table ES-52
Summary of Impacts and Mitigation for the Proposed Project

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
Biological Resources						
Impact BIO-1: Construction activities would result in temporary and permanent losses of native vegetation.	Class II	Class II	Class II	Class II	BIO-1a: Confine all construction and construction-related activities to the minimum necessary area as defined by the final engineering plans. BIO-1b: Conduct contractor training for all construction staff. BIO-1c: Conduct biological construction monitoring. BIO-1d: Restore all temporary construction areas pursuant to a Habitat Restoration Plan. BIO-1e: Provide habitat compensation or restoration for permanent impacts to native vegetation communities. BIO-1f: Implement fire prevention best management practices during construction and operation activities. BIO-1g: Prepare and implement a Stormwater Pollution Prevention Plan.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact BIO-2: Construction activities would result in adverse effects to jurisdictional waters and wetlands through vegetation removal, placement of fill, erosion, sedimentation, and degradation of water quality.	Class II	Class II	<u>Class II</u> No Impact	Class II	BIO-2a: Limit temporary and permanent impacts to jurisdictional features to the minimum necessary as defined by the final engineering plans. BIO-2b: Implement habitat creation, <u>enhancement</u> , <u>preservation</u> , and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands. BIO-2c: Where drainage crossings are unavoidable, construct access roads at right angles to drainages.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	<i>ECO Substation Project</i>	<i>Tule Wind Project</i>	<i>ESJ Gen-Tie Project</i>	<i>Proposed PROJECT'</i>		
Impact BIO-3: Construction and operation/maintenance activities would result in the introduction of invasive, non-native, or noxious plant species.	Class II	Class II	Class II	Class II	BIO-3a: Prepare and implement a Noxious Weeds and Invasive Species Control Plan.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact BIO-4: Construction activities would create dust that would result in degradation of vegetation.	Class II	Class II	Class II	Class II	BIO-4a: Prepare and implement a Dust Control Plan.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact BIO-5: Construction activities would result in direct or indirect loss of listed or sensitive plants or a direct loss of habitat for listed or sensitive plants.	Class II	Class II	Class II	Class II	BIO-5a: Install fencing or flagging around identified special-status plant species populations in the construction areas. BIO-5b: Implement special-status plant species compensation.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact BIO-6: Construction, including the use of access roads, would result in disturbance to wildlife and result in wildlife mortality.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur.
Impact BIO-7: Construction activities would result in direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife.	Class I	Class II	Class II	Class I	BIO-7a: Cover and/or provide escape routes for wildlife from excavated areas and monitor these areas daily. BIO-7b: Enforce speed limits in and around all construction areas. BIO-7c: Minimize night construction lighting adjacent to native habitats. BIO-7d: Prohibit littering and remove trash from construction areas daily. BIO-7e: Prohibit the harm, harassment, collection of, or feeding of wildlife.	With avoidance, minimization, and compensatory mitigation, impacts to Quino checkerspot butterfly critical habitat would occur and would remain adverse and unavoidable.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
					<p>BIO-7f: Obtain and implement the terms of agency permit(s) with jurisdiction federal or state listed species.</p> <p>BIO-7g: Conduct protocol surveys for Quino checkerspot butterfly within 1 year prior to project construction activities in occupied habitat.</p> <p>BIO-7h: Provide compensation for temporary and permanent impacts to Quino checkerspot butterfly habitat through conservation and/or restoration.</p> <p>BIO-7i: Final design of transmission towers and access roads through Quino checkerspot butterfly critical habitat shall maximally avoid host plants for Quino checkerspot butterfly.</p> <p>BIO-7j: Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds.</p>	
Impact BIO-8: Construction activities would result in a potential loss of nesting birds (violation of the Migratory Bird Treaty Act).	Class II	Class II	Class II	Class II	See MMs BIO-1a through BIO-1c, BIO-4a, BIO-7b through BIO-7e, and BIO-7j.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact BIO-9: Construction or operational activities would adversely affect linkages or wildlife movement corridors, the movement of fish, and/or native wildlife nursery sites.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur.
Impact BIO-10: Presence of transmission lines and wind turbines may result in electrocution of, and/or collisions by, listed or sensitive bird or	Class II	Class I	Class II	Class I	<p>BIO-10a: Design all transmission towers and lines to conform with Avian Power Line Interaction Committee standards.</p> <p>BIO-10b: Develop and implement project-specific</p>	With avoidance, minimization, and mitigation, operation of turbines would pose a

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
bat species.					<p>Avian Protection Plans.</p> <p>BIO-10c: Design and configure wind turbines to maximally avoid and minimize bird and bat resources.</p> <p>BIO-10d: Minimize turbine lighting.</p> <p>BIO-10e: Conduct post-construction bird and bat species mortality monitoring and reporting pursuant to an approved monitoring program.</p> <p>BIO-10f: Authorize construction of portions of the project based on the results of behavioral and population studies of local golden eagles.</p> <p>BIO-10g: Monitor golden eagles nests in the area to track productivity.</p> <p>BIO-10h: Implement an adaptive management program in an Avian and Bat Protection Plan that provides triggers for required operational modifications (seasonality, radar, turbine-specific modifications, and cut-in speed).</p> <p>BIO-10i: Obtain written agency approval of the Avian and Bat Protection Plan concurrent documenting compliance with regulations governing golden eagle.</p>	significant and unmitigable risk of collision for golden eagles due to the proximity of known active nests near the Proposed PROJECT; therefore, this impact would yield residual effects.
Impact BIO-11: Maintenance activities would result in disturbance to wildlife and could result in wildlife mortality.	Class II	Class II	Class II	Class II	BIO-11a: Conduct maintenance activities resulting in vegetation disturbance outside of the bird nesting season or conduct pre-construction nesting bird surveys.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Visual Resources						
Impact VIS-1: The project would have a substantial adverse effect on a	Class I	Class I	Class III (although	Class I	VIS-1a: Reduce impacts at scenic highway and trail crossings.	With mitigation listed at left, adverse impacts to scenic

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	<i>ECO Substation Project</i>	<i>Tule Wind Project</i>	<i>ESJ Gen-Tie Project</i>	<i>Proposed PROJECT'</i>		
scenic vista.			Class I for ESJ Phase I Wind development in Mexico)		VIS-1b: Reduce impacts at scenic view areas. VIS-1c: Avoid potential visibility of transmission structures and related facilities from sensitive viewing locations.	vistas would remain adverse and unavoidable.
Impact VIS-2: The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact	No Impact	No Impact	No Impact	No mitigation required	No residual impacts would occur.
Impact VIS-3: The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I	Class I	Class II (although Class I for ESJ Phase I Wind development in Mexico)	Class I	VIS-3a: Reduce visibility of construction activities and equipment. VIS-3b: Reduce construction night-lighting impacts. VIS-3c: Reduce construction impacts to natural features. VIS-3d: Reduce in-line views of land scars. VIS-3e: Reduce visual contrast from unnatural vegetation lines. VIS-3f: Minimize vegetation removal. VIS-3g: Reduce visual contrast associated with substation and ancillary facilities. VIS-3h: Screen substations and ancillary facilities. VIS-3i: Reduce potential visual contrast of transmission structures. VIS-3j: Reduce potential transmission conductor visibility and visual contrast. VIS-3k: Reduce potential visual contrast from transmission structure spacing.	With mitigation listed at left, impacts to existing visual character would remain adverse and unavoidable.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
					VIS-3l: Reduce potential view blockage and visual contrasts of structures. VIS-3m: Reduce visual impacts resulting from landscaping and native tree removal. VIS-3n: Reduce potential visual impacts of wind turbines and ancillary facilities.	
Impact VIS-4: The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area. <u>Impact VIS-4 pertains to long-term effects to nighttime views that would last the life of the project.</u>	Class II	Class I	No Impact (although <u>Class I for ESJ Phase I Wind development in Mexico</u>)	Class I	VIS-4a: Reduce long-term night-lighting impacts from substations and ancillary facilities. VIS-4b: Incorporate Obstacle Collision Avoidance System (OCAS) onto Tule Wind Project wind turbines.	With mitigation listed at left, impacts related to light or glare from project facilities would remain adverse and unavoidable.
Impact VIS-5: Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class II	Class I	Class II	Class I	MMs VIS-1a, 1b, and 1c. MMs VIS-3h, 3i, 3j, 3k, 3l, 3m, and 3n. MMs VIS-4a and 4b.	With mitigation listed at left, impacts related to project facilities and inconsistency with policies and plans protecting visual resources would remain adverse and unavoidable.
Land Use and Planning						
Impact LU-1: Construction would temporarily disturb land uses at or near project components.	Class II	Class II	Class III	Class II	LU-1a: Prepare Construction Notification Plan. LU-1b: Notify property owners and provide access.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
Impact LU-2: Presence of a project component would divide an established community or disrupt land uses at or near project components.	Class II	Class II	Class III	Class II	LU-2 (ECO) and LU-3 (Tule): Revise project elements to minimize land use conflicts.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact LU-3: The project would conflict with applicable land use plans, policies, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.	Class III	Class II	Class II	Class II	Mitigation Measures in other specific impact categories in this EIR/EIS would mitigate adverse impacts associated with conflicts with applicable land use plans and policies.	With applicable mitigation residual impacts would not be adverse.
Wilderness and Recreation						
Impact WR-1: Construction activities would temporarily reduce access and visitation to wilderness or recreation areas.	Class II	Class II	Class III	Class II	WR-1: Provide notice for access restrictions or anticipated closures to wilderness and recreation areas WR-2: Maintain access along McCain Valley Road	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact WR-2: Presence of a project component would permanently preclude recreational activities.	Class III	Class III	No Impact	Class III	No mitigation required.	No residual impacts would occur.
Impact WR-3: Presence of a project component in a designated wilderness or wilderness study would result in loss of wilderness land.	No Impact	No Impact	No Impact	No Impact	No mitigation required.	No residual impacts would occur.
Impact WR-3a: Presence of a project component in BLM lands with wilderness characteristics would substantially compromise wilderness characteristics.	=	Not adverse ²	=	Not adverse ²	No mitigation required.	No residual impacts would occur.
Impact WR-4: Presence of a project component would result in increased	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
unauthorized access to specially designated or restricted areas.						
Agriculture						
Impact AG-1: Construction and operation activities would interfere with active agricultural operations.	Class III	No Impact	No Impact	Class III	No mitigation required.	No residual impacts would occur.
Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use.	Class III	No Impact	No Impact	Class III	No mitigation required.	No residual impacts would occur.
Impact AG-3: Operation would conflict with existing zoning for agricultural use or permanently convert Williamson Act lands to non-agricultural use.	No Impact	Class III (existing zoning) No Impact (Williamson Act)	No Impact	Class III	No mitigation required.	No residual impacts would occur.
Impact AG-4: Operation would conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.	No Impact	No Impact	No Impact	No Impact	No mitigation required.	Since no adverse impacts would occur, no residual impacts would occur.
Impact AG-5: Operation would result in the loss of forest land or conversion of forest land to non-forest use.	No Impact	No Impact	No Impact	No Impact	No mitigation required.	Since no adverse impacts would occur, no residual impacts would occur.
Cultural and Paleontological Resources						
Impact CUL-1: Construction of the project would cause an adverse change to known significant prehistoric and <u>or</u> historic	Class II	Class II	Class II	Class II	CUL-1A: Develop and Implement a <u>Historic Properties Treatment Plan-Cultural Resources Treatment Program</u> CUL-1B: Avoid <u>and Protect</u> Significant Resources	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
archaeological resources.					(Environmentally Sensitive Areas Demarcated and Avoided). CUL-1C: Train Contractor CUL-1D: Construction Monitoring CUL-1E: Discovery of Unknown Resources CUL-1F: Control Unauthorized Access CUL-1G: Funding of Law Enforcement Patrols CUL-1H: Continue Consultation with Native Americans and Other Traditional Groups	
Impact CUL-2: Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II	Class II	Class II	Class II	CUL-2: Human Remains Procedures	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact CUL-3: Construction of the project would have a potential to cause an adverse change to Traditional Cultural Properties (TCP).	Class I	Class I	Class III	Class I	See MMs CUL-1A through CUL-1H and CUL-2CUL-3: Complete Consultation with Native American and other Tribal Groups	Without confirmation that TCPs are not in the project area, impacts would remain adverse and unavoidable for the ECO and Tule projects.
Impact CUL-4: Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class III	Class II	No Impact	Class II	CUL-1A: Develop and Implement a Historic Properties Treatment Plan-Cultural Resources Treatment Program Management Plan	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact PALEO-1: Construction of the project would destroy or disturb significant paleontological resources.	Class II	Class II	Class II	Class II	PALEO-1: Avoid Paleontological Resources or Reduce Impacts to Less Than Significant PALEO-1A: Inventory and evaluate	The measures listed at left would mitigate this impact. Residual impacts would not

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
					<p>paleontological resources in the Final APE. <u>PALEO-1B: Develop Paleontological Monitoring and Treatment Plan.</u> <u>PALEO-1C: Monitor Construction for Paleontology.</u> <u>PALEO-1D: Conduct paleontological data recovery.</u> <u>PALEO-1E: Train construction personnel.</u></p>	be adverse.
Noise						
Impact NOI-1: Construction noise would substantially disturb sensitive receptors and violate local rules, standards, and/or ordinances.	Class I	Class I	Class III	Class I	NOI-1: Blasting Plan.	With mitigation listed at left, impacts related to nighttime noise would remain adverse and unavoidable. Noise impacts from helicopter and blasting noise would be adverse and unavoidable if impacted residents do not agree to temporarily relocate.
Impact NOI-2: Construction activity would temporarily cause groundborne vibration.	Class III	Class I	Class III	Class I	See MM NOI-1.	Since it is not known whether impacted residents would agree to temporarily relocate, with mitigation listed at left, vibration impacts from blasting would remain adverse and unavoidable.
Impact NOI-3: Permanent noise levels would increase due to corona noise from operations of the transmission lines and noise from other project components.	Class II	Class II	Class II	Class II	NOI-2: Conductor configuration selection to address noise impacts. NOI-3: Site-specific noise mitigation plan.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	<i>ECO Substation Project</i>	<i>Tule Wind Project</i>	<i>ESJ Gen-Tie Project</i>	<i>Proposed PROJECT'</i>		
Impact NOI-4: Routine inspection and maintenance activities would increase ambient noise levels.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur.
Transportation and Traffic						
Impact TRA-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow.	Class II	Class II	Class II	Class II	TRA-1: Prepare and implement a traffic control plan.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact TRA-2: Construction activities would restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units), and there are no reasonable alternative access routes available.	Class II	Class II	Class III	Class II	See MM TRA-1.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact TRA-3: Construction activities would result in unstable flow, or fluctuations in volumes of traffic that temporarily restrict flow; or in an unacceptable reduction in performance of the circulation system, as defined by an applicable plan (including a congestion management program), ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.	Class II	Class II	Class III	Class II	See MM TRA-1.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact TRA-4: The project would substantially increase hazards due to a design feature (e.g., sharp curves or	Class III	Class III	Class III	Class III	No mitigation is required.	No residual impacts would occur.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
dangerous intersections) or incompatible uses (e.g., farm equipment).						
Impact TRA-5: Construction would substantially disrupt bus or rail transit service, and there would be no suitable alternative routes or stops; or would impede pedestrian movements or bike trails, and there are no suitable alternative pedestrian/bicycle access routes or accommodation through construction zones; or would conflict with planned transportation projects in the project area.	Class II	Class II	Class III	Class II	See MM TRA-1.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact TRA-6: Construction or staging activities would increase the demand for and/or reduce the supply of parking spaces, and there would be no provisions for accommodating the resulting parking deficiencies.	Class III	Class III	No Impact	Class III	No mitigation is required.	No residual impacts would occur.
Impact TRA-7: A noticeable increase in deterioration of roadway surfaces used for the construction zone would occur as a result of heavy truck or construction equipment movements.	Class II	Class II	Class III	Class II	TRA-2: Repair roadways damaged by construction activities	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact TRA-8: A project structure, crane, or wires would be positioned such that it could adversely affect aviation activities, or a proposed land	Class II	Class II	Class II	Class II	TRA-3: Consult with and inform <u>FAA, DOD, and U.S. Customs and Border Protection</u>	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	<i>ECO Substation Project</i>	<i>Tule Wind Project</i>	<i>ESJ Gen-Tie Project</i>	<i>Proposed PROJECT¹</i>		
use would conflict with the applicable Airport Land Use Compatibility Plan.						
Public Health and Safety						
Impact HAZ-1: Impacts to soil or groundwater could result from an accidental spill or release of hazardous materials due to improper handling or storage of hazardous materials during construction activities.	Class II	Class II	Class II	Class II	HAZ-1a: Hazardous Materials Management Plan. HAZ-1b: Health and Safety Program. HAZ-1c: Waste Management Plan. HAZ-1d: Testing for environmental hazards associated with demolition.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HAZ-2: Residual pesticides and/or herbicides could be encountered during grading or excavation.	Class II	Class II	Class III	Class II	HAZ-2a: Test for pesticides/herbicides on currently or historically farmed land. HAZ-2b: Contingency plan for encountering contaminated soils.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HAZ-3: Previously unknown soil and/ or groundwater contamination could be encountered during grading or excavation.	Class II	Class II	Class II	Class II	HAZ-3: Soil testing for lead contamination.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HAZ-4: Potential safety hazards could adversely affect construction workers or the general public accessing the project site during construction, operation, or decommissioning.	Class II	Class II	Class II	Class II	HAZ-4a: Safety Assessment. HAZ-4b: Blasting Plan.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HAZ-5: Impacts to soil or groundwater could result from an accidental spill or release of hazardous materials during operations and maintenance.	Class II	Class II	Class II	Class II	HAZ-5a: Spill Prevention Control and Countermeasure Plan. HAZ-5b: Hazardous Materials Business Plan.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT'		
Impact HAZ-6: Herbicides used for vegetation control around towers and other project facilities could result in adverse health effects to the public or maintenance workers.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur.
Impact HAZ-7: Undue risks could result due to the breaking of a rotor blade, also called "blade throw."	N/A	Class II	N/A	Class II	HAZ-6: Wind Turbine Safety Zone and Setbacks.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HAZ-8: Undue risks could result due to the potential collapse of a wind turbine.	N/A	Class III	N/A	Class III	See MM HAZ-6.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact PS-1 Operation could result in EMI, including interference with radar, radio, television, and electrical equipment.	Class II	Class II	Class II	Class II	PS-1a: Minimize electromagnetic and public safety communications. PS-1b: Limit conductor surface potential. PS-1c: Document complaints of broadcast interference. PS-1d: Aeronautical study. (Tule Wind)	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact PS-2: Operation could result in induced currents and shock hazards in joint use corridors.	Class II	Class II	Class II	Class II	PS-2: Determine proper grounding procedures and implement appropriate grounding measures.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact PS-3: Electric fields could affect cardiac pacemakers.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
Impact PS-4: Project structures could be affected by wind or lightning hazards.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur
Impact PS-5: Facilities could suffer an outage from intentional destruction or terrorism.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur
Air Quality						
Impact AIR-1: Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I	Class I	Class I	Class I	AQ-1: Measures (listed in Section D.11) shall be incorporated in order to reduce fugitive dust and other criteria pollutant emissions during construction activities. AQ-2: Off-road diesel engine standards.	With mitigation listed in Section D.11, impacts to air quality would remain adverse and unavoidable.
Impact AIR-2: Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur
Impact AIR-3: Construction <u>and decommissioning</u> would not generate exhaust emissions of VOC and NOx that would exceed the general conformity de minimis thresholds.	Class III	Class III	N/A	N/A	No mitigation required.	No residual impacts would occur.
Impact AIR-4: Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur.
Impact AIR-5: Construction and operational activities would not	Class II	Class II	Class III	Class II	See MMs AQ-1 and AQ-2.	No residual impacts would occur.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	<i>ECO Substation Project</i>	<i>Tule Wind Project</i>	<i>ESJ Gen-Tie Project</i>	<i>Proposed PROJECT'</i>		
expose sensitive receptors to substantial pollutant concentrations.						
Impact AIR-6: Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III	Class III	Class III	Class III	No mitigation required.	No residual impacts would occur.
Water Resources						
Impact HYD-1: Construction activity could degrade water quality due to erosion and sedimentation.	Class II	Class II	Class II	Class II	HYD-1: A Stormwater Pollution Prevention Plan shall be prepared to reduce soil erosion during construction. See MM GEO-1.	The measure listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HYD-2: Construction activity could degrade water quality through spills of potentially harmful materials.	Class II	Class II	Class II	Class II	See MM HYD-1. See MM GEO-1.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HYD-3: Excavation could degrade groundwater quality in areas of shallow groundwater.	Class II	Class II	Class II	Class II	HYD-2: Avoidance and preventative measures to protect local groundwater during excavation. See MMs HAZ-1a through HAZ-1d, HAZ-2a, and HAZ-2b.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HYD-4: The project could deplete local water supplies.	Class II	Class II	Class III	Class II	HYD-3: Identification of sufficient water supply.	The measure listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HYD-5: Creation of new impervious areas could cause increased runoff, resulting in flooding or increased erosion downstream.	Class II	Class II	Class II	Class II	HYD-4: Stormwater Management Plan.	The measure listed at left would mitigate this impact. Residual impacts would not be adverse.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	<i>ECO Substation Project</i>	<i>Tule Wind Project</i>	<i>ESJ Gen-Tie Project</i>	<i>Proposed PROJECT'</i>		
Impact HYD-6: Project features located in a floodplain or watercourse could result in flooding, flood diversions, or erosion, or expose people or structures to significant risk.	Class II	Class II	Class III	Class II	See MMs HYD-1, HYD-4, <u>BIO-1a through BIO-1d</u> , BIO-1f, and BIO-2a through BIO-2c.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HYD-7: Accidental releases of contaminants from project facilities could degrade water quality.	Class II	Class II	Class II	Class II	See MMs HAZ-5a and HAZ-5b.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact HYD-8: Where septic tanks are proposed, such facilities could impact local water quality.	No Impact	Class III	No Impact	Class III	No mitigation required.	No residual impacts would occur.
Geology, Mineral Resources, and Soils						
Impact GEO-1: Erosion would be triggered or accelerated due to construction activities.	Class II	Class II	Class II	Class II	GEO-1: Erosion Control and Sediment Transport Control Plan. See MM HYD-1.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact GEO-2: Project would expose people or structures to potential substantial adverse effects as a result of problematic soils.	Class II	Class II	Class II	Class II	GEO-2: Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.	The measure listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact GEO-3: Project would expose people or structures to potential substantial adverse effects as a result of seismically induced ground shaking, ground failure, or fault rupture.	Class II	Class II	Class II	Class II	See MM GEO-2 GEO-3: Conduct geotechnical investigations. GEO-4: Facilities inspections conducted following major seismic event.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	<i>ECO Substation Project</i>	<i>Tule Wind Project</i>	<i>ESJ Gen-Tie Project</i>	<i>Proposed PROJECT'</i>		
Impact GEO-4: Project would expose people or structures to potential substantial adverse effects as a result of landslides, earthflows, rockfall, and/or subsidence.	Class III	Class II	Class III	Class II	See MM HYD-3 GEO-5: Conduct geotechnical surveys for landslides and mines.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact GEO-5: Project would impact mineral resources.	Class III	Class III	Class III	Class III	No mitigation required.	Since no adverse impacts would occur, no residual impacts would occur.
<i>Public Services and Utilities</i>						
Impact PSU-1: Construction of the project would disrupt the existing utility systems or cause a co-location accident.	Class II	Class II	Class III	Class II	PSU-1a: Notification of utility service interruption. PSU-1b: Protect underground utilities. PSU-1c: Coordinate with utility providers.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact PSU-2: Project construction and operation would increase the need for public services and facilities.	Class III	Class III	Class III	Class III	No mitigation required.	There would be no adverse residual impacts.
Impact PSU-3: Sufficient water supplies are not available to serve the project from existing entitlements, and resources and new or expanded entitlements would be needed.	Class II	Class II	Class III	Class II	See MM HYD-3.	The measure listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact PSU-4: The applicable wastewater treatment provider that serves or may serve the project determines that adequate capacity to serve the project's projected demand (in addition to the provider's existing commitments) is not available.	No Impact	Class III	No Impact	Class III	No mitigation required.	There would be no adverse residual impacts.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
Impact PSU-5: The project would not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	Class III	Class III	Class III	Class III	No mitigation required.	There would be no adverse residual impacts.
Fire and Fuel						
Impact FF-1: Construction and/or operational and maintenance and decommissioning (<u>Tule Wind Project only</u>) activities would significantly increase the probability of a wildfire.	Class II	Class II	Class II	Class II	FF-1: Develop and implement a Construction Fire Prevention/Protection Plan. FF-2: Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009) to <u>Create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan.</u> FF-3: Development Agreement with Rural Fire Protection District and San Diego County Fire Authority. FF-4: Customized Fire Protection Plan for Project.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Impact FF-2: Presence of project facilities including overhead transmission line would increase the probability of a wildfire.	Class I	Class II	Class II	Class I	See MMs FF-1 through FF-4. FF-3: Provide Assistance to San Diego Rural Fire Protection District and San Diego County Fire Authority. FF-4: Customized Fire Protection Plan for Project. FF-5: Wind Turbine Generator Fire Protection Systems. <u>Tule Wind APMs PDF-1, PDF-4, PDF-6, and PDFs 8-26.</u> <u>Tule Wind Fire Protection Plan Mitigation Measures FPP-4 through FPP-7 (implemented through the Tule Wind Fire Protection Plan).</u> <u>ESJ APMs FIRE-1 through FIRE-3.</u>	Because final approval of <u>SDG&E's Fire Protection Plan (Mitigation Measure FF-4)</u> has yet to be received and assistance to <u>SDRFPD and SDCFA</u> has yet to be provided in the form of supporting fire code specialist positions (Mitigation Measure FF-3) to <u>SDRFPD and SDCFA</u> , mitigation effectiveness for the <u>ECO Substation Project</u>

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT'		
						is not known and, therefore, for purposes of the analysis conducted these impacts unavoidable. With mitigation listed at left, impacts related to increased fire probability from project facilities would remain adverse and unavoidable.
Impact FF-3: Presence of the overhead transmission line/facilities would reduce the effectiveness of firefighting.	Class I	Class II	Class II	Class I	See MMs FF-1 through FF-3 and FF-5. FF-6: Funding for FireSafe Council.	Because final approval of SDG&E's Fire Protection Plan (Mitigation Measure FF-4) has yet to be received and assistance to SDRFPD and SDCFA has yet to be provided in the form of supporting fire code specialist positions (Mitigation Measure FF-3) to SDRFPD and SDCFA, mitigation effectiveness for the ECO Substation Project is not known and, therefore, for purposes of the analysis conducted With mitigation listed at left, impacts related to reduced effectiveness of firefighting due to the presence of

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	ECO Substation Project	Tule Wind Project	ESJ Gen-Tie Project	Proposed PROJECT ¹		
						project facilities would remain adverse and unavoidable.
Impact FF-4: Project activities would introduce non-native plants, which would contribute to an increased ignition potential and rate of fire spread.	Class II	Class II	Class II	Class II	See MM FF-2. FF-7: Preparation of Disturbed Area Revegetation Plan.	The measures listed at left would mitigate this impact. Residual impacts would not be adverse.
Social and Economic Conditions						
Impact SOC-1: The project would displace substantial numbers of people or existing housing.	Class III	No Impact	No Impact	Class III	No mitigation required.	There would be no adverse residual impacts.
Impact SOC-2: Project construction and/or presence would cause a change in revenue for businesses, tribes, or governments and would cause a substantial change in local employment.	Beneficial	Beneficial	Beneficial	Beneficial	No mitigation required.	Impacts would be beneficial with no adverse residual impacts.
Impact SOC-3: Project construction and operation would cause a decrease in property values.	Not Adverse	Not Adverse	Not Adverse	Not Adverse	No mitigation required.	There would be no adverse residual impacts.
Impact SOC-4: Property tax revenues and/or fees from project presence would substantially benefit public agencies.	Beneficial	Beneficial	Beneficial	Beneficial	No mitigation required.	Impacts would be beneficial with no adverse residual impacts.
Environmental Justice						
Impact EJ-1: Construction and operation would not result in disproportionately high or adverse effects on minority or low-income	No Impact	No Impact	No Impact	No Impact	No mitigation required.	Since no impacts would occur, no residual impacts would occur.

Table ES-52 (Continued)

Impact	CEQA Impact Class				Mitigation Measures	Residual Impact
	<i>ECO Substation Project</i>	<i>Tule Wind Project</i>	<i>ESJ Gen-Tie Project</i>	<i>Proposed PROJECT¹</i>		
populations.						
<i>Climate Change</i>						
Impact GHG-1: Project construction would cause a net increase of greenhouse gas emissions.	Class III	Class III	Class III	Class III	No mitigation required.	There would be no adverse residual impacts.
Impact GHG-2: Project operation would cause a net increase of greenhouse gas emissions.	Class III	Class III	Class III	Class III	No mitigation required.	There would be no adverse residual impacts.
Impact GHG-3: Project activities would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Class III	Class III	Class III	Class III	No mitigation required.	There would be no adverse residual impacts.

¹ Includes Campo, Manzanita, and Jordan Wind Energy Projects.

² This impact is solely applicable to BLM jurisdictional lands and therefore, only a NEPA impact determination is provided.

Table ES-63
Comparison of Impacts for the Proposed ECO Substation Project and Alternatives

Proposed ECO Substation Project	ECO Substation Site Alternative	ECO Partial Underground 138 kV Transmission Route	ECO Highway 80 138 kV Transmission Route	ECO Highway 80 Underground 138 kV Transmission Route
<i>Biological Resources (see Section D.2 for full analysis)</i>				
Adverse and unmitigable impacts (Class I) would occur to QCB critical habitat. Other adverse mitigable impacts (Class II) would occur for other sensitive species/habitat.	Adverse and unmitigable impacts (Class I) would be nearly identical to the Proposed Project.	Adverse and unmitigable impacts (Class I) would remain significant and would be greater than the Proposed Project due to increased ground disturbance during construction.	Adverse and unmitigable impacts (Class I) would remain significant and would be greater than the Proposed Project due to an increase in sensitive riparian habitat as well as QCB habitat.	Adverse and unmitigable impacts (Class I) would remain significant and would be greater than the Proposed Project due to increased ground disturbance during construction and an increase in sensitive riparian habitat and QCB habitat.
<i>Visual Resources (see Section D.3 for full analysis)</i>				
Adverse and unmitigable impacts (Class I) would occur as the Project would have adverse impacts on scenic vistas and substantially degrade existing visual character.	Adverse and unmitigable impacts (Class I) would be nearly identical to the Proposed Project.	Adverse and unmitigable impacts (Class I) would occur. Although undergrounding a portion of the transmission line would reduce and avoid some of the visual impacts, the overall impact levels would be similar to those identified for the proposed Project.	Adverse and unmitigable impacts (Class I) would be greater than the Proposed Project due to installation of a new transmission line along a more visible corridor (more residences in the area and along a highway).	Adverse and unmitigable impacts (Class I) would occur. Although undergrounding a portion of the transmission line would reduce and avoid some of the visual impacts, the overall impact levels would be similar to those identified for the Proposed Project.
<i>Land Use (see Section D.4 for full analysis)</i>				
Short- and long-term land use impacts associated with the Project would generally be adverse mitigable impacts (Class II). The Project would be consistent with all applicable federal land use plans, and because the County has no land use jurisdiction over the Project, local plans are not applicable	Impacts would be nearly identical to those of the Proposed Project.	Impacts would be nearly identical to those of the Proposed Project, temporary impacts would be slightly greater, and long-term impacts where the transmission line is undergrounded would be less.	Impacts would be nearly identical to those of the Proposed Project, temporary impacts and some long-term impacts would be slightly greater due to a greater number of residences along the alternate 4.8-mile route.	Impacts would be nearly identical to those of the Proposed Project, temporary impacts would be slightly greater, and long-term impacts where the transmission line is undergrounded would be less.

Table ES-63 (Continued)

Proposed ECO Substation Project	ECO Substation Site Alternative	ECO Partial Underground 138 kV Transmission Route	ECO Highway 80 138 kV Transmission Route	ECO Highway 80 Underground 138 kV Transmission Route
and impacts would not be adverse (Class III).				
Wilderness and Recreation (see Section D.5 for full analysis)				
Project would not directly impact wilderness or recreation areas. Temporary impacts to access to recreation and wilderness areas would be adverse but mitigable (Class II).	Impacts would be nearly identical to those of the Proposed Project.	Adverse mitigable impacts (Class II) would be slightly greater than those of the Proposed Project, but would also be mitigable.	Impacts would not be adverse (Class III) as under this alternative the project would not interfere with access to a wilderness or recreation area.	Impacts would not be adverse (Class III) as under this alternative the project would not interfere with access to a wilderness or recreation area.
Agricultural Resources (see Section D.6 for full analysis)				
Impacts would not be adverse (Class III), due to small impacts at Ketchum Ranch.	Impacts would not be adverse (Class III); impacts would be identical to those of the Proposed Project.	Impacts would not be adverse (Class III), impacts would be identical to those of the Proposed Project.	Impacts would not be adverse (Class III). Impacts would be less than those of the Proposed Project.	Impacts would not be adverse (Class III), impacts would be less than those of the Proposed Project.
Cultural and Paleontological Resources (see Section D.7 for full analysis)				
Adverse and unmitigable impacts (Class I) may occur to Traditional Cultural Property (TCP). Adverse and mitigable impacts (Class II) would occur to archaeological resources.	This alternative avoids a significant prehistoric archaeological site. Therefore, impacts would be reduced, but overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP.	Impacts to cultural resources would increase under this alternative due to open trenching along the undergrounded route. Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP.	Impacts would be similar to the proposed project and would remain adverse and unmitigable (Class I).	Impacts to cultural resources would increase under this alternative due to open trenching along the undergrounded route. Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP.

Table ES-63 (Continued)

Proposed ECO Substation Project	ECO Substation Site Alternative	ECO Partial Underground 138 kV Transmission Route	ECO Highway 80 138 kV Transmission Route	ECO Highway 80 Underground 138 kV Transmission Route
Noise (see Section D.8 for full analysis)				
Adverse and unmitigable noise impacts (Class I) would occur temporarily due to construction related nighttime noise, helicopters and blasting. Other noise impacts would be adverse and mitigable (Class II) and/or not adverse (Class III).	Impacts would be similar to but less than those of the Proposed Project. due to an increase distance to residences. Adverse and unmitigable noise impacts (Class I) would occur temporarily due to construction related nighttime noise, helicopters and blasting.	Construction related adverse impacts would be similar to the proposed project, and would remain adverse and unmitigable (Class I). Operations noise impacts would be reduced where the transmission line is undergrounded, but would remain adverse and mitigable (Class II).	Construction related adverse impacts would be similar to the proposed project, and would remain adverse and unmitigable (Class I). Operations noise impacts would be similar to the proposed project and would remain adverse and mitigable (Class II).	Construction related adverse impacts would be similar to the proposed project, and would remain adverse and unmitigable (Class I). Operations noise impacts would be reduced where the transmission line is undergrounded, but would remain adverse and mitigable (Class II).
Transportation and Traffic (see Section D.9 for full analysis)				
Short-term construction activities would cause adverse mitigable impacts (Class II) to traffic and roadways.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.
Public Health and Safety (see Section D.10 for full analysis)				
Hazardous materials encountered during construction and electromagnetic interference during operations would result in adverse mitigable impacts Class II impacts.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be greater than the Proposed Project due to trenching for underground installation, but would remain less than significant with mitigation.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be greater than the Proposed Project due to trenching for underground installation, but would remain less than significant with mitigation.

Table ES-63 (Continued)

Proposed ECO Substation Project	ECO Substation Site Alternative	ECO Partial Underground 138 kV Transmission Route	ECO Highway 80 138 kV Transmission Route	ECO Highway 80 Underground 138 kV Transmission Route
<i>Air Quality (see Section D.11 for full analysis)</i>				
Short-term construction related NO _x and PM ₁₀ air emissions would remain adverse with mitigation (Class I), other short-term air quality impacts would be Adverse mitigable impacts (Class II) and long-term impacts would not be adverse (Class III).	Impacts would be similar to the Proposed Project and would include adverse and unmitigable impacts (Class I).	Significant and unmitigable impacts (Class I). Due to a section of the transmission line being placed underground, air quality impacts associated with helicopter delivery of aboveground tower components would not occur, but greater impacts related to trenching would occur. Ultimately, impacts would be similar to the Proposed Project.	Impacts would be similar to the Proposed Project and would include adverse and unmitigable impacts (Class I).	Significant and unmitigable impacts (Class I). Due to a section of the transmission line being placed underground, air quality impacts associated with helicopter delivery of aboveground tower components would not occur, but greater impacts related to trenching would occur. Ultimately, impacts would be similar to the Proposed Project.
<i>Water Resources (see Section D.12 for full analysis)</i>				
Short-term construction activities would degrade water resources and impact water supply, resulting in adverse but mitigable impacts (Class II).	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be greater than the Proposed Project, but remain less than significant with mitigation.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be greater than the Proposed Project, but remain less than significant with mitigation.
<i>Geology, Mineral Resources, and Soils (see Section D.13 for full analysis)</i>				
Short-term construction activities would cause erosion and project facilities would be located in seismically active area with liquefaction risk resulting in adverse mitigable impacts (Class II).	Adverse mitigable impacts (Class II) would be almost identical to those of the Proposed Project.	Adverse mitigable impacts (Class II) would be temporary and greater than those of the Proposed Project, but would be mitigable. Permanent impacts would be less than the Proposed Project where the transmission line would be placed underground but would remain adverse with mitigation.	Adverse mitigable impacts (Class II) would be similar to those of the Proposed Project.	Adverse mitigable impacts (Class II) would be temporary and greater than those of the Proposed Project, but with mitigation, remain less than significant. Permanent impacts would be less than the Proposed Project where the transmission line would be placed underground but would remain adverse with mitigation.

Table ES-63 (Continued)

Proposed ECO Substation Project	ECO Substation Site Alternative	ECO Partial Underground 138 kV Transmission Route	ECO Highway 80 138 kV Transmission Route	ECO Highway 80 Underground 138 kV Transmission Route
<i>Public Services and Utilities (see Section D.14 for full analysis)</i>				
Adverse mitigable impacts (Class II) during construction would disrupt existing utilities and require substantial amounts of water.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.
<i>Fire and Fuels Management (see Section D.15 for full analysis)</i>				
Adverse and unmitigable impacts (Class I) would occur as with partial mitigation, certain risks remain. The possibility that a transmission line fault would start a fire remains. Transmission lines also reduce firefighter effectiveness. Therefore, impacts are considered adverse and unmitigable.	Adverse and unmitigable impacts (Class I) would be similar to the Proposed Project.	Adverse and unmitigable impacts (Class I) would be less than the Proposed Project, but would remain adverse.	Adverse and unmitigable impacts (Class I) would be similar to the Proposed Project.	Adverse and unmitigable impacts (Class I) would be less than the Proposed Project, but would remain adverse.
<i>Social and Economic Conditions (see Section D.16 for full analysis)</i>				
No adverse impacts (Class III) and beneficial impacts would occur. The Project would not displace people or housing, and would stimulate the local economy.	No adverse impacts (Class III) and beneficial impacts would be similar to the Proposed Project.	No adverse impacts (Class III) and beneficial impacts would occur as impacts would be similar to the Proposed Project.	No adverse impacts (Class III) and beneficial impacts would occur as impacts would be similar to the Proposed Project.	No adverse impacts (Class III) and beneficial impacts would occur as impacts would be similar to the Proposed Project.

Table ES-63 (Continued)

Proposed ECO Substation Project	ECO Substation Site Alternative	ECO Partial Underground 138 kV Transmission Route	ECO Highway 80 138 kV Transmission Route	ECO Highway 80 Underground 138 kV Transmission Route
<i>Environmental Justice (see Section D.17 for full analysis)</i>				
Construction and operation of the project would not result in disproportionately high or adverse effects on minority or low-income populations.	Construction and operation of the project would not result in disproportionately high or adverse effects on minority or low-income populations.	Construction and operation of the project would not result in disproportionately high or adverse effects on minority or low-income populations.	Construction and operation of the project would not result in disproportionately high or adverse effects on minority or low-income populations.	Construction and operation of the project would not result in disproportionately high or adverse effects on minority or low-income populations.
<i>Climate Change (see Section D.18 for full analysis)</i>				
No adverse impacts (Class III) and beneficial impacts (Class IV) would occur as the Project would assist the State in achieving its renewable energy goals.	No adverse impacts (Class III) and beneficial impacts (Class IV) impacts would occur and would be similar to the Proposed Project.	No adverse impacts (Class III) and beneficial impacts (Class IV) impacts would occur and would be similar to the Proposed Project.	No adverse impacts (Class III) and beneficial impacts (Class IV) impacts would occur and would be similar to the Proposed Project.	No adverse impacts (Class III) and beneficial impacts (Class IV) impacts would occur and would be similar to the Proposed Project.

Table ES-74
Comparison of Impacts for the Proposed Tule Wind Project and Alternatives

Proposed Tule Wind Project	Tule Alternative Gen-Tie Route 2 with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 2 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 3 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Reduction in Turbines
Biological Resources (see Section D.2 for full analysis)					
Adverse and unmitigable impacts (Class I) would be caused by wind turbines to birds, such as golden eagles. Impacts to other sensitive species and habitats would be adverse but mitigable (Class II).	Adverse and unmitigable impacts (Class I) would be similar. Adverse mitigable impacts (Class II) to vegetation and habitat would be slightly greater. Adverse mitigable impacts (Class II) due to electrocution would be slightly reduced due to a reduction in overhead lines.	Adverse and unmitigable impacts (Class I) would be similar. Adverse mitigable impacts (Class II) to vegetation and habitat would be slightly greater. Adverse mitigable impacts (Class II) due to electrocution would be slightly reduced due to a reduction in overhead lines.	Adverse and unmitigable impacts (Class I) would be similar. Adverse mitigable impacts (Class II) to vegetation and habitat would be slightly greater. Adverse mitigable impacts (Class II) due to electrocution would be slightly reduced due to a reduction in overhead lines.	Adverse and unmitigable impacts (Class I) would be similar. Adverse mitigable impacts (Class II) to vegetation and habitat would be slightly greater. Adverse mitigable impacts (Class II) due to electrocution would be slightly reduced due to a reduction in overhead lines.	Adverse and unmitigable impacts (Class I) to special status bird species would be substantially reduced (based on the 62 65 turbines removed under this alternative that are in areas of high risk of collision for golden eagles based on topography, landforms, and distance to known active nests). However adverse and unmitigable impacts (Class I) to golden eagles would remain due to the risk of mortality from collision with operating turbines. Adverse mitigable impacts (Class II) to vegetation and habitat would be slightly reduced. Adverse mitigable impacts (Class II) due to electrocution would be the same as the proposed project.

Table ES-74 (Continued)

Proposed Tule Wind Project	Tule Alternative Gen-Tie Route 2 with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 2 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 3 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Reduction in Turbines
Visual Resources (see Section D.3 for full analysis)					
Adverse and unmitigable impacts (Class I) would occur as the Project would have adverse impacts on scenic vistas, would substantially degrade existing visual character, would create a substantial new source of light, and would temporarily cause inconsistency with visual impact regulations due to construction.	Adverse and unmitigable impacts (Class I) would be nearly identical to the Proposed Project.	Adverse and unmitigable impacts (Class I) would occur, although undergrounding a portion of the transmission line would reduce and avoid some of the visual impacts, the overall impact would remain adverse and unmitigable (Class I).	Adverse and unmitigable impacts (Class I) would be nearly identical to the Proposed Project.	Adverse and unmitigable impacts (Class I) would occur, although undergrounding a portion of the transmission line would reduce and avoid some of the visual impacts, the overall impact would remain adverse and unmitigable (Class I).	Adverse and unmitigable impacts (Class I) would be reduced as turbines would be removed from highest ridgelines; however turbines would remain on elevated ridgelines in the project area.
Land Use (see Section D.4 for full analysis)					
Short-term construction and long-term land use impacts would be adverse of mitigable (Class II). The project would be consistent with all applicable federal and Ewiiapaayp Band land use plans. A portion of the project on county lands would not be consistent with all applicable county plans and policies pertaining to maintenance of rural character;	Impacts would be similar to the Proposed Project.	Impacts would be reduced but would remain similar to the Proposed Project.	Impacts would be similar to the Proposed Project and would remain similar to the Proposed Project.	Impacts would be reduced but would remain similar to the Proposed Project.	Impacts would be similar to the Proposed Project.

Table ES-74 (Continued)

Proposed Tule Wind Project	Tule Alternative Gen-Tie Route 2 with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 2 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 3 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Reduction in Turbines
however, with implementation of mitigation measures provided under land use and visual resources (and with the granting of the Major Use Permits required for wind turbines and the 138 kV transmission line) this impact is considered to be adverse and mitigable (Class II).					
Wilderness and Recreation (see Section D.5 for full analysis)					
Mitigable adverse impacts (Class II) would occur as the Project would directly impact recreation areas, and would not directly impact wilderness areas. Project components would impact inventoried lands with wilderness characteristics; however, portions of the project site not directly impacted by project components would retain wilderness characteristics.	Mitigable adverse impacts (Class II) would be slightly less than the Proposed Project, due to alternate Rough Acres Ranch site. Similar affects to lands with wilderness characteristics as the Proposed Project.	Mitigable adverse impacts (Class II) would be slightly less than the Proposed Project, due to alternate Rough Acres Ranch site. Similar affects to lands with wilderness characteristics as the Proposed Project.	Mitigable adverse impacts (Class II) would be slightly less than the Proposed Project, due to alternate Rough Acres Ranch site. Similar affects to lands with wilderness characteristics as the Proposed Project.	Mitigable adverse impacts (Class II) would be slightly less than the Proposed Project, due to alternate Rough Acres Ranch site. Similar affects to lands with wilderness characteristics as the Proposed Project.	Mitigable adverse impacts (Class II) would be less than the Proposed Project, due to fewer turbines and a bigger buffer adjacent to wilderness areas in the northwest. Affects to lands with wilderness characteristics would be reduced compared to the Proposed Project due to fewer turbines.

Table ES-74 (Continued)

Proposed Tule Wind Project	Tule Alternative Gen-Tie Route 2 with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 2 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 3 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Reduction in Turbines
<i>Agricultural Resources</i> (see Section D.6 for full analysis)					
Adverse impacts would not occur (Class III) as the Project would not directly impact agricultural area, and would place a utility, an allowable use, in areas zoned for agriculture.	Adverse impacts would not occur (Class III). Impacts would be greater than those of the Proposed Project, but remain not adverse.	Adverse impacts would not occur (Class III). Impacts would be greater than those of the Proposed Project, but remain not adverse.	Adverse impacts would not occur (Class III). Impacts would be greater than those of the Proposed Project, but remain not adverse.	Adverse impacts would not occur (Class III). Impacts would be greater than those of the Proposed Project, but remain not adverse.	Adverse impacts would not occur (Class III). Impacts would be identical to those of the Proposed Project.
<i>Cultural and Paleontological Resources</i> (see Section D.7 for full analysis)					
Adverse and unmitigable impacts (Class I) may occur to Traditional Cultural Property (TCP).	Impacts would be reduced due to the O&M/Substation facility being located in a more disturbed area. Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP.	Impacts would be reduced due to the O&M/Substation facility being located in a more disturbed area, but would increase where trenching would occur. Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP.	Impacts would be reduced due to the O&M/Substation facility being located in a more disturbed area. Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP.	Impacts would be reduced due to the O&M/Substation facility being located in a more disturbed area, but would increase where trenching would occur. Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP.	Impacts would be reduced with fewer turbine locations due to less ground disturbance. Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP.
<i>Noise</i> (see Section D.8 for full analysis)					
Adverse and unmitigable noise and vibration impacts (Class I) would temporarily occur from construction related blasting and drilling activities, Operations noise would be adverse	Impacts would be similar to the Proposed Project and would remain adverse with mitigation (Class I).	Adverse and unmitigable impacts (Class I) would be greater than the Proposed Project due to trenching activities along the underground portion of the transmission line.	Adverse and unmitigable impacts (Class I) would occur during construction that would be greater than the Proposed Project due to an increase in sensitive receptors along the alternate route, and would remain adverse with	Adverse and unmitigable impacts (Class I) would occur during construction that would be greater than the Proposed Project and other Alternatives due to an increase in sensitive receptors along the	Impacts would be similar to the Proposed Project and would remain adverse with mitigation (Class I).

Table ES-74 (Continued)

Proposed Tule Wind Project	Tule Alternative Gen-Tie Route 2 with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 2 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 3 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Reduction in Turbines
and mitigable (Class II).			mitigation.	alternate route and open trenching, and would remain adverse with mitigation.	
Transportation and Traffic (see Section D.9 for full analysis)					
Short-term construction activities would cause adverse but mitigable impacts (Class II) to traffic and roadways.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.
Public Health and Safety (see Section D.10 for full analysis)					
Hazardous materials encountered during construction and electromagnetic interference during operations would result in mitigable adverse impacts (Class II).	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be greater than the Proposed Project and aboveground Alternatives due to trenching for underground installation, but would remain less than significant.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be greater than the Proposed Project and aboveground Alternatives due to trenching for underground installation, but would remain less than significant.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.
Air Quality (see Section D.11 for full analysis)					
Short-term construction related VOC, NO _x , PM ₁₀ , and PM _{2.5} air emissions would remain adverse with mitigation (Class I), other short-term air quality impacts would be mitigable adverse impacts	Adverse and unmitigable impacts (Class I) would be similar to the Proposed Project.	Significant and unmitigable impacts (Class I) would occur. Due to a section of the transmission line being placed underground, air quality impacts associated with helicopter delivery of	Adverse and unmitigable impacts (Class I) would be similar to the Proposed Project.	Significant and unmitigable impacts (Class I) would occur. Due to a section of the transmission line being placed underground, air quality impacts associated with helicopter delivery of	Adverse and unmitigable impacts (Class I) would be slightly less than but similar to the Proposed Project.

Table ES-74 (Continued)

Proposed Tule Wind Project	Tule Alternative Gen-Tie Route 2 with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 2 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 3 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Reduction in Turbines
(Class II), and long-term impacts would not be adverse (Class III).		aboveground tower components would not occur, but greater impacts related to trenching would occur. Ultimately, impacts would be similar to the Proposed Project.		aboveground tower components would not occur, but greater impacts related to trenching would occur. Ultimately, impacts would be similar to the Proposed Project.	
Water Resources (see Section D.12 for full analysis)					
Short-term construction activities would degrade water resources and impact water supply, resulting in adverse but mitigable impacts (Class II).	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be greater than to the Proposed Project, but would remain less than significant with mitigation.	Adverse mitigable impacts (Class II) would be similar to the Proposed Project.	Adverse mitigable impacts (Class II) would be greater than to the Proposed Project, but would remain less than significant with mitigation.	Adverse mitigable impacts (Class II) would be slightly less than the Proposed Project.
Geology, Mineral Resources, and Soils (see Section D.13 for full analysis)					
Short-term construction activities would cause erosion and project facilities would be located in seismically active area with potentially active faults, steep slopes, and active/inactive mines, resulting in mitigable adverse impacts (Class II).	Mitigable adverse impacts (Class II) would be similar to those of the Proposed Project.	Mitigable adverse impacts (Class II) would occur Where the transmission line is placed underground, temporary impacts would increase and permanent impacts would decrease compared to those of the Proposed Project. However, overall impacts would remain adverse but mitigable.	Mitigable adverse impacts (Class II) would be similar to those of the Proposed Project.	Mitigable adverse impacts (Class II) would occur Where the transmission line is placed underground, temporary impacts would increase and permanent impacts would increase compared to those of the Proposed Project. However, overall impacts would remain less than adverse but mitigable.	Mitigable adverse impacts (Class II) would be less than Proposed Project due to removal of turbine locations near a potential active fault; risks of landslides, earthflows, rockfall are reduced due to the elimination of turbine locations within steeper slope areas; and risks of subsidence are reduced due to the elimination of turbine locations in an area of past mining operations.

Table ES-74 (Continued)

Proposed Tule Wind Project	Tule Alternative Gen-Tie Route 2 with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 2 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 3 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Reduction in Turbines
Public Services and Utilities (see Section D.14 for full analysis)					
Construction activities would cause temporary adverse impacts to utility services and water supplies that would be mitigable (Class II).	Mitigable adverse impacts (Class II) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be slightly less than the Proposed Project.
Fire and Fuels Management (see Section D.15 for full analysis)					
Mitigable adverse impacts (Class II) with implementation of mitigation measures and fire protection plans. Adverse and unmitigable impacts (Class I) would occur as with partial mitigation, certain risks remain. The possibility that a transmission line fault would start a fire remains. Transmission lines also reduce firefighter effectiveness. Therefore, impacts are considered adverse and unmitigable.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project. Adverse and unmitigable impacts (Class I) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project. Adverse and unmitigable impacts (Class I) would be less than the Proposed Project, but would remain adverse.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project. Adverse and unmitigable impacts (Class I) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project. Adverse and unmitigable impacts (Class I) would be less than the Proposed Project, but would remain adverse.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project. Adverse and unmitigable impacts (Class I) would be similar to the Proposed Project.
Social and Economic Conditions (see Section D.16 for full analysis)					
The Project would not have an adverse impact, would not displace people or housing, and would	Impacts would be similar to the Proposed Project.	Impacts would be similar to the Proposed Project.	Impacts would be similar to the Proposed Project.	Impacts would be similar to the Proposed Project.	Similar to the Proposed Project, the Project under this alternative would not have an adverse impact,

Table ES-74 (Continued)

Proposed Tule Wind Project	Tule Alternative Gen-Tie Route 2 with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 2 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch	Tule Alternative Gen-Tie Route 3 Underground with Collector Substation/ O&M Facility on Rough Acres Ranch	Tule Reduction in Turbines
stimulate the local economy.					would not displace people or housing, and would stimulate the local economy. However, under this alternative revenues from all turbines that would otherwise have been on the Ewiiapaayp Indian Reservation would be eliminated. Revenues for BLM, California State Lands Commission (CSLC), and the County of San Diego would also be reduced.
Environmental Justice (see Section D.17 for full analysis)					
No impact	No impact	No impact	No impact	No impact	No impact
Climate Change (see Section D.18 for full analysis)					
No adverse impacts (Class III) would occur as the Project would assist the State in achieving its renewable energy goals.	No adverse impacts (Class III) would occur, as this alternative would be similar to the Proposed Project.	No adverse impacts (Class III) would occur, as this alternative would be similar to the Proposed Project.	No adverse impacts (Class III) would occur, as this alternative would be similar to the Proposed Project.	No adverse impacts (Class III) would occur, as this alternative would be similar to the Proposed Project.	No adverse impacts (Class III) would occur, as under this alternative impacts would be slightly less than but similar to the Proposed Project.

Table ES-85
Comparison of Impacts for the Proposed ESJ Gen-Tie Project and Alternatives

Proposed ESJ Gen-Tie Project	ESJ 230 kV Gen-Tie Underground Alternative	ESJ Gen-Tie Overhead Alternative Alignment	ESJ Gen-Tie Underground Alternative Alignment
Biological Resources (see Section D.2 for full analysis)			
Mitigable adverse impacts (Class II) that would be temporary and permanent would occur to native vegetation, and sensitive species and their habitat.	Mitigable adverse impacts (Class II) would be greater than the Proposed Project due to increased ground disturbance, but would remain mitigable.	Mitigable adverse impacts (Class II) would be nearly identical to the Proposed Project.	Mitigable adverse impacts (Class II) would be greater than the Proposed Project, but would remain mitigable.
Visual Resources (see Section D.3 for full analysis)			
The ESJ Gen-Tie would have impacts on scenic vistas that would not be adverse (Class III); impacts on visual quality and consistency with visual resource plans and policies would be adverse but mitigable (Class II). The ESJ Wind Phase I Project component in Mexico would cause adverse and unmitigable impacts (Class I) to scenic vistas, visual character, and night-time views.	Adverse and unmitigable impacts (Class I) would remain due to the ESJ Wind Phase I Project, undergrounding the ESJ Gen-Tie line would reduce some impacts already classified as Class II and III.	Impacts would be similar to the proposed project.	Adverse and unmitigable impacts (Class I) would remain due to the ESJ Wind Phase I Project, undergrounding the ESJ Gen-Tie line would reduce some impacts already classified as Class II and III.
Land Use (see Section D.4 for full analysis)			
Short- and long-term land use impacts would not be adverse (Class III) and with implementation of mitigation measures provided under land use, visual resources, and fire and fuels management the project was found to be consistent with all land use plans and policies (impacts would be adverse but mitigable (Class II)).	Impacts would be less than those of the Proposed Project and would not be adverse (Class III).	Impacts would be nearly identical to those of the Proposed Project.	Impacts would be less than those of the Proposed Project and would not be adverse (Class III).
Wilderness and Recreation (see Section D.5 for full analysis)			
Impacts would not be adverse (Class III)	Temporary impacts would be slightly greater and operations impacts would be slightly less than those of the Proposed Project. However, impacts would remain not adverse (Class III).	Impacts would be nearly identical to those of the Proposed Project.	Temporary impacts would be slightly greater and operations impacts would be slightly less than those of the Proposed Project. However, impacts would remain not adverse (Class III).

Table ES-85 (Continued)

Proposed ESJ Gen-Tie Project	ESJ 230 kV Gen-Tie Underground Alternative	ESJ Gen-Tie Overhead Alternative Alignment	ESJ Gen-Tie Underground Alternative Alignment
Agricultural Resources (see Section D.6 for full analysis)			
No impact	No impact	No impact	No impact
Cultural and Paleontological Resources (see Section D.7 for full analysis)			
Impacts would be adverse and mitigable (Class II) due to potential impacts to human remains, archaeological sites, and cultural or paleontological resources during project construction. Adverse and unmitigable impacts (Class I) may occur to Traditional Cultural Property (TCP) would not be adverse (Class III).	Impacts to cultural resources would increase under this alternative due to open trenching along the undergrounded route. Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP would not be adverse (Class III).	Impacts would be similar due to potential impacts to human remains, archaeological sites, and cultural or paleontological resources. (Class II). Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP would not be adverse (Class III).	Impacts would slightly increase due to open trenching along the undergrounded route. (Class II). Overall impacts would remain adverse and unmitigable (Class I) due to potential impacts to TCP would not be adverse (Class III).
Noise (see Section D.8 for full analysis)			
Mitigable adverse impacts (Class II) would occur from Corona noise from operations of the transmission lines and noise from other project components. All other Project related noise impacts would not be adverse (Class III).	Undergrounding the transmission lines would result in no adverse noise impacts (Class III) during operations. Construction noise would increase during open trenching, but would not be adverse (Class III).	Mitigable adverse impacts (Class II) would occur and be similar to the Proposed Project. All other Project related noise would not be adverse (Class III).	Undergrounding the transmission lines would result in no adverse noise impacts (Class III) during operations. Construction noise would increase during open trenching, but would not be adverse (Class III).
Transportation and Traffic (see Section D.9 for full analysis)			
Mitigable adverse impacts (Class II) would occur that would be short-term and related to construction traffic and roadways.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project.
Public Health and Safety (see Section D.10 for full analysis)			
Hazardous materials encountered during construction and electromagnetic interference during operations would result in adverse mitigable impacts (Class II) .	Mitigable adverse impacts (Class II) would be greater than the Proposed Project due to trenching for underground installation, but would remain less than significant.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be greater than the Proposed Project due to trenching for underground installation, but would remain less than significant.

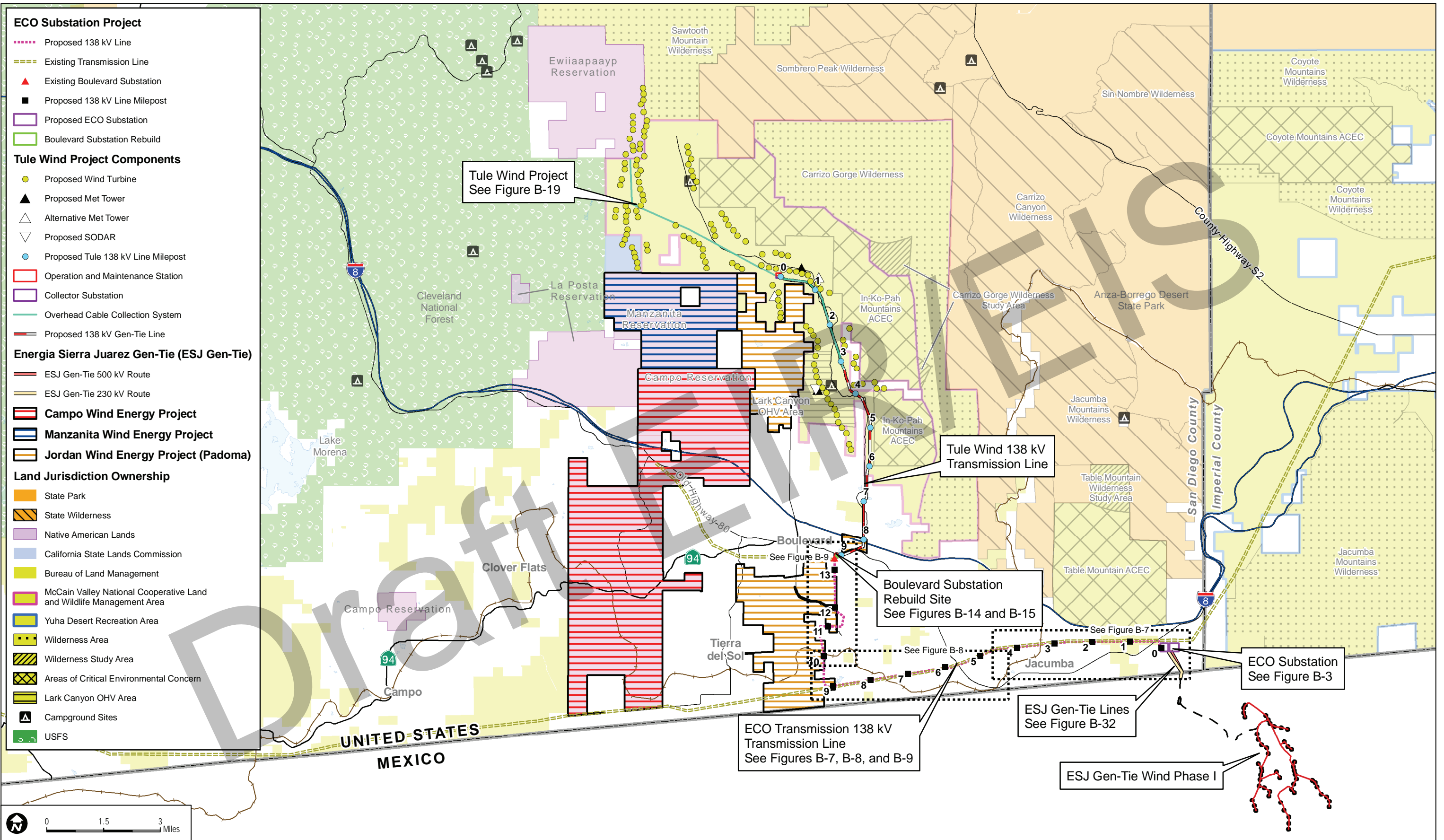
Table ES-85 (Continued)

Proposed ESJ Gen-Tie Project	ESJ 230 kV Gen-Tie Underground Alternative	ESJ Gen-Tie Overhead Alternative Alignment	ESJ Gen-Tie Underground Alternative Alignment
<i>Air Quality (see Section D.11 for full analysis)</i>			
Short-term construction related PM ₁₀ air emissions would remain adverse with mitigation (Class I). Other short-term air quality impacts would be adverse mitigable (Class II), and long-term impacts would not be adverse (Class III).	Adverse unmitigable impacts (Class I), due to a section of the transmission line being placed underground, air quality impacts associated with helicopter delivery of aboveground tower components would not occur, but greater impacts related to trenching would occur. Ultimately, impacts would be similar to the Proposed Project.	Adverse unmitigable impacts (Class I) would be similar to the Proposed Project.	Adverse unmitigable impacts (Class I), due to a section of the transmission line being placed underground, air quality impacts associated with helicopter delivery of aboveground tower components would not occur, but greater impacts related to trenching would occur. Ultimately, impacts would be similar to the Proposed Project.
<i>Water Resources (see Section D.12 for full analysis)</i>			
Short-term construction activities would degrade water resources and impact water supply, resulting in adverse but mitigable impacts (Class II).	Mitigable adverse impacts (Class II) would be greater than the Proposed Project, but would be mitigable.	Mitigable adverse impacts (Class II) would be similar to the Proposed Project.	Mitigable adverse impacts (Class II) would be greater than the Proposed Project, but would be mitigable.
<i>Geology, Mineral Resources, and Soils (see Section D.13 for full analysis)</i>			
Short-term construction activities would cause erosion and project facilities would be located in seismically active area, resulting in adverse mitigable impacts (Class II).	Mitigable adverse impacts (Class II) would occur. Temporary impacts would be greater and permanent impacts would be less than those of the Proposed Project. However, overall impacts would remain adverse but mitigable.	Mitigable adverse impacts (Class II), would be similar to those of the Proposed Project.	Mitigable adverse impacts (Class II) would occur. Temporary impacts would be greater and permanent impacts would be less than those of the Proposed Project. However, overall impacts would remain adverse but mitigable.
<i>Public Services and Utilities (see Section D.14 for full analysis)</i>			
Construction related impacts would occur but would not be adverse (Class III).	Adverse impacts would not occur (Class III), impacts would be similar to those of the Proposed Project.	Adverse impacts would not occur (Class III), impacts would be similar to those of the Proposed Project.	Adverse impacts would not occur (Class III), impacts would be similar to those of the Proposed Project.

Table ES-85 (Continued)

Proposed ESJ Gen-Tie Project	ESJ 230 kV Gen-Tie Underground Alternative	ESJ Gen-Tie Overhead Alternative Alignment	ESJ Gen-Tie Underground Alternative Alignment
<i>Fire and Fuels Management (see Section D.15 for full analysis)</i>			
Adverse mitigable impacts (Class II). A transmission line fault could start a fire and reduce firefighter effectiveness; however, with implementation of mitigation, impacts would be adverse but mitigable (Class II). Adverse unmitigable impacts (Class I) would occur as with partial mitigation, certain risks remain. The possibility that a transmission line fault would start a fire remains. Transmission lines also reduce firefighter effectiveness. Therefore, impacts are considered adverse and unmitigable.	Mitigable adverse impacts (Class II) would occur and, therefore would , be less than the proposed project by undergrounding the transmission line.	Adverse unmitigable impacts (Class II) would be nearly identical to the proposed project.	Mitigable adverse impacts (Class II) would occur and, therefore, would be less than the proposed project by undergrounding the transmission line.
<i>Social and Economic Conditions (see Section D.16 for full analysis)</i>			
The Project would not displace people or housing, and would stimulate the local economy.	Impacts would be similar to the Proposed Project.	Impacts would be similar to the Proposed Project.	Impacts would be similar to the Proposed Project.
<i>Environmental Justice (see Section D.17 for full analysis)</i>			
No impact	No impact	No impact	No impact
<i>Climate Change (see Section D.18 for full analysis)</i>			
No adverse impacts (Class III) would occur because the Project would assist the State in achieving its renewable energy goals.	No adverse impacts (Class III) would occur, as impacts would be similar to the Proposed Project.	No adverse impacts (Class III) would occur, as impacts would be similar to the Proposed Project.	No adverse impacts (Class III) would occur, as impacts would be similar to the Proposed Project.

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