1. Introduction

This joint Environmental Impact Report (EIR) and Environmental Impact Statement (EIS) has been prepared by the California Public Utilities Commission (CPUC) as Lead Agency under the California Environmental Quality Act (CEQA), and the USDA Forest Service as Lead Agency under the National Environmental Policy Act (NEPA). This EIR/EIS is intended to inform the public and meet the needs of local, State, and federal agencies that will need to consider issuing approvals and permits for the proposed Tehachapi Renewable Transmission Project (TRTP, or "proposed Project"), as proposed by Southern California Edison (SCE). The proposed Project, which is described in full detail in Chapter 2 (Description of Alternatives, including the Proposed Project) of this document, would connect the Tehachapi Wind Resource Area (TWRA) in southern Kern County with SCE's transmission system in order to deliver power produced in the TWRA to utility load centers.

On June 29, 2007, SCE submitted Application No. A.07-06-031 to the CPUC for a Certificate of Public Convenience and Necessity (CPCN), as required for the construction and operation of the proposed Project (see Section 1.2.2 below). With the CPCN application, SCE also submitted its Proponent's Environmental Assessment (PEA) for the proposed Project. Because the proposed transmission line would traverse approximately 42 miles of National Forest System (NFS) lands, SCE also filed an application for a Special Use authorization with the USDA Forest Service on June 29, 2007, seeking permission for construction, operation, and maintenance of the proposed Project on NFS lands in the Angeles National Forest (ANF). Because the Project also crosses lands owned by the U.S. Army Corps of Engineers (USACE), the USACE has elected to participate as a Cooperating Agency for the NEPA review of the Project. In addition, portions of Alternative 4 (Chino Hills Routes) cross land owned by the California Department of Parks and Recreation (CDPR), which would require discretionary approvals from both the California State Parks and Recreation Commission and CDPR. Therefore, both agencies are considered to be Responsible Agencies for the CEQA review of the Project. Other Responsible Agencies are listed in Section 1.3 below.

If the Forest Service decides to issue a Special Use authorization for the proposed Project or an alternative to the Project, several amendments to the governing 2005 Forest Land Management Plan (FLMP, or Forest Plan) would be required in order to ensure consistency of actions under the Special Use authorization with management direction in the FLMP. Section 1.3 (Agency Use of this Document) includes a discussion of the 2005 Forest Plan amendments that are expected to be required prior to implementation of the proposed Project or one of the Project alternatives.

This EIR/EIS evaluates and presents the environmental impacts that are expected to result from construction, operation, and maintenance of SCE's proposed Project and presents recommended mitigation measures that, if adopted, would avoid or minimize associated environmental impacts. In accordance with both CEQA and NEPA requirements, this EIR/EIS also identifies and analyzes alternatives that address significant environmental issues associated with the proposed Project, including the No Project/Action Alternative.

The intent of this joint EIR/EIS is to inform the public and meet the needs of federal, State, and local agencies that will need to issue permits or other approvals for the proposed Project. The proposed Project is described briefly below and in detail in Chapter 2 (Description of Alternatives, including the Proposed Project) of this joint document. This EIR/EIS does not make a recommendation regarding the approval or denial of the Project; it is purely informational in content and will be used by the CPUC and Forest Service, as well as by

responsible and cooperating agencies, in considering whether or not to authorize and/or approve the proposed Project or an alternative to the proposed Project.

The content of this EIR/EIS reflects relevant input received from government officials, public agencies, nongovernmental organizations, and concerned members of the public during the EIR/EIS scoping period following the CPUC's publication of the Notice of Preparation (NOP) of an EIR (August 31, 2007), and the Forest Service's publication of the Notice of Intent (NOI) to prepare an EIS (*Federal Register* Vol. 72, No. 173, page 51404, September 7, 2007). During the public scoping and comment period for the proposed Project, public involvement activities including the following were completed: establishment of an Internet web page and a telephone hotline for Project information and to receive public comments; distribution of the NOP, NOI, and scoping meeting notices; multiple public scoping meetings were conducted; and multiple meetings with affected local jurisdictions were conducted to discuss comments and concerns related to the Project. Please see Section 7.1 (Public Participation and Notification) for a full description of public scoping activities. Consultation with affected public agencies continued beyond the formal scoping period, as needed, to resolve concerns related to the Project.

The primary components of the proposed Project include: (1) Construct new 500-kV transmission lines; (2) Construct new single-circuit 220-kV transmission lines; (3) Rebuild existing 220-kV lines to 500-kV standards; (4) Rebuild existing single-circuit transmission lines to double-circuit transmission lines; (5) Relocate several existing 66-kV subtransmission lines; (6) Construct a new 500-kV substation; and (7) Upgrade five existing substations. Approximately 42 miles of the proposed Project would be located on NFS lands in the ANF and up to approximately three miles of the proposed transmission facilities would require right-of-way (ROW) expansion on ANF lands. In addition, approximately 6.4 miles of the proposed Project alignment would be located on land owned by the USACE (in the vicinity of Santa Fe Dam and Whittier Narrows in Los Angeles County (Segments 7 and 8). Some of the USACE lands are leased or otherwise outgranted for specific purposes, such as long-term leases for use and management for public recreational purposes; however, the USACE has ultimate control and responsibility over those lands. The USACE has separate regulatory jurisdiction pursuant to Section 404 of the Clean Water Act for the discharge of fill or dredged material into waters of the United States (see Section 1.3).

The proposed Project and alternatives are briefly summarized below in Section 1.1 (please see Chapter 2 for a full description); the Project's purpose and need are discussed in Section 1.2; agency use of this document is presented in Section 1.3; an overview of the environmental review process is provided in Section 1.4, and a readers' guide to this EIR/EIS is included in Section 1.5.

1.1 Overview of Proposed Project/Action and Alternatives

Presented below is an overview of the alternatives considered as part of this EIR/EIS. Pursuant to CEQA (Guidelines Section 15126.6(a)) and NEPA (40 CFR 1505.1(e)), a reasonable range of alternatives to SCE's proposed Project (Alternative 2) are examined in this EIR/EIS, and were selected based on the following criteria: (1) the alternative's potential to meet most of the Project objectives/purpose and need, (2) the feasibility of the alternative, and (3) the alternative's ability to address significant environmental issues associated with SCE's proposed Project. As required under CEQA Section 15126.6(e) and NEPA Section 1502.14(d), a No Project/Action alternative was also considered. The proposed Project and alternatives include the following:

Alternative 1: No Project/Action Alternative. Under the No Project/Action Alternative the Tehachapi Renewable Transmission Project, as proposed, would not be implemented. As such, none of the associated

Project activities would occur and the environmental impacts associated specifically with the proposed Project would not occur. However, in the absence of the Project, SCE still would continue to operate and maintain the existing transmission structures, including access roads and spur roads, for operation and maintenance purposes under a variety of agreements (landowners and land managers) and permits (Forest Service and USACE). For example, within the ANF, approximately 80 miles of roads are currently being used to access the existing structures along Segments 6 and 11, which the use and maintenance of is authorized through existing roads permits issued by the Forest Service. SCE would also be required to interconnect and integrate power generation facilities into its electric system, as required under Sections 210 and 212 of the Federal Power Act (16 U.S.C. § 824 [i] and [k]) and Sections 3.2 and 5.7 of the California Independent System Operator's (CAISO's) Tariff. Various scenarios related to electricity generation and transmission reasonably expected to occur in the foreseeable future are identified in Chapter 2 (Description of Alternatives, including the Proposed Project) of the EIR/EIS.

Alternative 2: SCE's Proposed Project. SCE's proposed Project would involve construction, operation, and maintenance of new and upgraded transmission infrastructure along approximately 173 miles of new and existing ROWs from the TWRA in southern Kern County, south through Los Angeles County and the ANF, and east to the existing Mira Loma Substation in Ontario, San Bernardino County, California. The proposed Project would traverse approximately 42 miles of NFS lands in the ANF, as well as approximately 6.4 miles of lands that are owned by the USACE in the vicinity of Santa Fe Dam and Whittier Narrows in Los Angeles County (Segments 7 and 8). Primary components of SCE's proposed Project include the following:

- Build a new single-circuit 500-kV transmission line (T/L) traveling approximately 16.8 miles in new ROW between the approved Windhub Substation and the proposed new Whirlwind Substation (Segment 10);
- Build two new single-circuit 220-kV T/Ls for approximately four miles (traveling parallel) in new ROW between the proposed (not part of Project) Cottonwind Substation to the proposed new Whirlwind Substation (Segment 4 – 220 kV);
- Build a new single-circuit 500-kV T/L for approximately 15.6 miles in new ROW between the proposed new Whirlwind Substation and the existing Antelope Substation (Segment 4 – 500 kV);
- Rebuild approximately 17.8 miles of the existing Antelope-Vincent 220-kV T/L and the existing Antelope-Mesa 220-kV T/L to 500-kV standards in existing ROW between the existing Antelope and Vincent Substations (Segment 5);
- Rebuild approximately 18.7 miles of existing 220-kV T/L to 500-kV standards between the existing Vincent and Gould Substations and construct a new 220-kV circuit on the vacant side of the existing double-circuit structures of the Eagle Rock-Mesa 220-kV T/L between the existing Gould and Mesa Substations (Segment 11);
- Rebuild approximately 31.9 miles of existing 220-kV T/L to 500-kV standards from the existing Vincent Substation to the southern boundary of the ANF, including approximately 26.9 miles of the existing Antelope-Mesa 220-kV T/L and approximately five miles of the existing Rio Hondo-Vincent 220-kV No. 2 T/L (Segment 6);
- Rebuild approximately 15.8 miles of existing Antelope-Mesa 220-kV T/L to 500-kV standards from the southern boundary of the ANF to the existing Mesa Substation (Segment 7);
- Rebuild approximately 33 miles of existing Chino-Mesa 220-kV T/L to 500-kV standards from a point approximately two miles east of the existing Mesa Substation (the "San Gabriel Junction") to the existing Mira Loma Substation. Also rebuilding approximately seven miles of the existing Chino-Mira Loma No. 1 line from single-circuit to double-circuit 220-kV structures (Segment 8);
- Build the new Whirlwind Substation, a 500/220-kV substation located approximately four to five miles south of the proposed (not part of Project) Cottonwind Substation near the intersection of 170th Street and Holiday Avenue in Kern County near the TWRA (Segment 9);
- Upgrade the existing Antelope, Vincent, Mesa, Gould, and Mira Loma Substations to accommodate new T/L construction and system compensation elements (Segment 9);

- Install associated telecommunications infrastructure; and
- Apply approved herbicides to select invasive plant species in the Project area on NFS lands within the ANF.

Alternative 3: West Lancaster Alternative. This alternative would re-route the new 500-kV T/L in Segment 4, which is currently proposed along 110th Street West, 0.5 miles farther west along 115th Street West. As with the proposed Project, Alternative 3 would traverse approximately 42 miles of NFS lands in the ANF and approximately 6.4 miles of lands that are owned by the USACE.

Alternative 4: Chino Hills Alternatives. Four route variations in the Chino Hills area have been analyzed, as described below.

- **Route A** would place a new double-circuit 500-kV T/L in Segment 8A through Chino Hills State Park (CHSP) parallel to and south of an existing double-circuit 220-kV T/L. This alternative route would require construction of a new 500-kV switching station in CHSP, which would allow the new 500-kV T/Ls to connect to existing 500-kV T/Ls located in this area that provide connections to the Mira Loma Substation.
- **Route B** represents a refinement to Alternative 4 Route A, in which a new double-circuit 500-kV T/L in Segment 8A would be routed completely through CHSP parallel to and north of an existing double-circuit 220-kV T/L. This alternative route would require construction of a new 500-kV switching station, which would be located east of and outside of the CHSP, and would allow the new double-circuit 500-kV T/L to connect to existing 500-kV T/Ls located in this area that provide connections to the Mira Loma Substation.
- **Route C** represents a refinement to Alternative 4 Route A, in which a new double-circuit 500-kV T/L in Segment 8A would be placed parallel to and south of an existing double-circuit 220-kV T/L up to CHSP. At this point, this alternative route would turn east for approximately 1.6 miles, remaining just north of the CHSP boundary, to a new 500-kV switching station. A portion of the existing single-circuit 500-kV T/L within CHSP would be re-routed to tie into the new switching station, which would allow the new double-circuit 500-kV T/L to connect to these existing 500-kV T/Ls to allow power flow to continue on to the Mira Loma Substation. In addition, a portion of the existing 220-kV T/L within CHSP would be re-routed outside of CHSP, paralleling the new 500-kV T/Ls from just west of the CHSP boundary to the new switching station. The re-routed 500-kV and 220-kV T/Ls would proceed north out of the new switching station and east around raptor ridge for approximately 1.9 miles to reconnect with the existing 500-kV and 220-kV T/Ls.
- **Route D** represents a refinement to Alternative 4 Route A, in which a new double-circuit 500-kV T/L in Segment 8A would be placed parallel to and north of an existing double-circuit 220-kV T/L up to CHSP. At this point, the alternative route would turn east and proceed to follow the northern boundary of CHSP for approximately 4.0 miles, then just east of Bane Canyon the alignment would turn southeast traversing the northeast corner of CHSP for approximately 1.3 miles. The alignment would then turn northeast, again parallel and north of the existing T/Ls, for approximately 0.4 mile before terminating at a new 500-kV switching station located outside of CHSP, just south of the existing 500-kV T/Ls. This switching station would allow the new double-circuit 500-kV T/L to connect to existing 500-kV T/Ls located in this area to provide connections to the Mira Loma Substation.

As with the proposed Project, Alternative 4 (including all routing options) would traverse approximately 42 miles of NFS lands in the ANF and approximately 6.4 miles of lands that are owned by the USACE.

Alternative 5: Partial Underground Alternative. This alternative would utilize Gas Insulated Line (GIL) technology to place the proposed transmission lines underground along Segment 8A through the City of Chino Hills from approximately S8A MP 21.9 to 25.4 to reduce significant visual impacts and address other community concerns. As with the proposed Project, Alternative 5 would traverse approximately 42 miles of NFS lands in the ANF and approximately 6.4 miles of lands that are owned by the USACE.

Alternative 6: Maximum Helicopter Construction in the ANF Alternative. This alternative was requested by the Forest Service to reduce ground disturbance within the ANF by minimizing new road construction through the use of helicopter construction. Helicopter staging/support areas have been identified in the vicinity of Segments 6 and 11 to provide for helicopter construction activities within the ANF. A total of 143 new 500-

kV towers would be constructed by helicopter under this alternative: 87 along Segment 6 and 56 along Segment 11. As with the proposed Project, Alternative 6 would traverse approximately 42 miles of NFS lands in the ANF and approximately 6.4 miles of lands that are owned by the USACE. Any detailed changes to the identified helicopter staging/support areas that are identified after publication of the Draft EIR/EIS will be addressed in the Final EIR/EIS. Invasive plant species will be surveyed for and controlled using manual techniques and approved herbicides within the Project area on NFS lands on the ANF.

Alternative 7: 66-kV Subtransmission Alternative. This alternative is comprised of three 66-kV subtransmission line elements, including the following: (1) Undergrounding the existing 66-kV subtransmission line on Segment 7 through the River Commons at the Duck Farm Project (Duck Farm Project) between MP 8.9 and MP 9.9 of Segment 7, as requested by the Board of Supervisors County of Los Angeles to minimize the Project's effects to passive recreation opportunities in the planned Duck Farm Project area; (2) Re-routing and undergrounding the existing 66-kV subtransmission line around the Whittier Narrows Recreation area along Segment 7 (S7 MP 11.4 to 12.025) to provide habitat enhancement for least Bell's vireos as identified by SCE; and (3) Re-routing the existing 66-kV subtransmission line around the Whittier Narrows Recreation Area along Segment 8A between the San Gabriel Junction at MP 2.2 and S8A MP 3.8 to provide habitat enhancement for least Bell's vireos, as identified by SCE. As with the proposed Project, Alternative 7 would traverse 42 miles of NFS lands in the ANF; however, this alternative would also traverse roughly 7.9 miles of lands that are owned by the USACE, which is approximately 1.5 miles more USACE lands than the proposed Project or other Project alternatives.

1.2 Purpose and Need

Under the Council on Environmental Quality (CEQ) regulations for NEPA (40 CFR Section1502.13), an EIS must identify the underlying purpose and need to which the lead agency is responding in proposing the alternatives, including the proposed action. Similarly, an EIR must contain a clearly written statement of objectives that include the underlying purpose of the project (Section 15124(b) of the CEQA Guidelines).

The purpose of the proposed TRTP is described in the PEA, which was submitted as part of SCE's application to the CPUC and the USDA Forest Service. As stated by SCE, the purpose of the proposed TRTP is to provide the electrical facilities necessary to integrate levels of new wind generation in excess of 700 MW and up to approximately 4,500 MW in the TWRA (SCE, 2007). Because the proposed TRTP would serve future wind development projects in the TWRA, the potential effects of these future wind projects are addressed in Chapter 6 (Development of the Tehachapi Wind Resource Area) of this Draft EIR/EIS.

In addition to the purpose of the Project described above, SCE identified the following objectives for the Project in the PEA:

- Construct the project to reliably interconnect new wind generation resources in the TWRA, and enable SCE and other California utilities to comply with California's Renewables Portfolio Standard (RPS) in an expedited manner.
- Comply with all applicable reliability planning criteria required by the North American Electric Reliability Council (NERC), the Western Electricity Coordinating Council (WECC), and the CAISO.
- Construct facilities in an orderly, rational and cost-effective manner to maintain reliable electric service, by minimizing service interruptions, during construction.
- Address the reliability needs of the CAISO controlled grid due to projected load growth in the Antelope Valley.
- Address the South of Lugo transmission constraints, an ongoing source of concern for the Los Angeles Basin.
- Maximize the use of existing T/L right-of-ways in order to minimize effects on previously undisturbed land and resources.

- Minimize environmental impacts, through selection of routes, tower types and locations, while still meeting project objectives.
- Where existing right-of-way is not available, select the shortest feasible route that minimizes environmental impacts.
- Meet project needs in a cost-effective and timely manner.

The CPUC and Forest Service reviewed the Project objectives presented by SCE to determine which of the objectives represented an underlying purpose of the Project and, therefore, could appropriately be used to develop a range of reasonable Project alternatives for analysis in the EIR/EIS. In addition to the purpose of the Project described by SCE to provide electrical facilities needed to integrate new wind generation, the Lead Agencies determined that the Project would also accomplish two other important objectives related to increasing transmission system reliability in the Antelope Valley and resolving transmission constraints south of Lugo Substation, which is located in Hesperia, California. Therefore, for the purposes of CEQA and NEPA, the Project's three primary objectives are to:

- Provide the electrical facilities necessary to reliably interconnect and integrate in excess of 700 MW[1] and up to approximately 4,500 MW of new wind generation in the TWRA currently being planned or expected in the future, thereby enabling SCE and other California utilities to comply with the California RPS goals in an expedited manner (i.e., 20 percent renewable energy by year 2010 per California Senate Bill 107).[2]
- Address the reliability needs of the CAISO-controlled grid due to projected load growth in the Antelope Valley.
- Address the South of Lugo transmission constraints, an ongoing source of concern for the Los Angeles Basin.

The Lead Agencies determined that the other objectives identified by SCE in the PEA (as listed above) were intended to guide the planning and design of the proposed TRTP and do not represent part of the underlying purpose of the Project.

The Lead Agencies decided it was necessary to assess the purpose and need for the TRTP independent of SCE's application filings (Bagley, 2008). Relevant documents issued by the CAISO, California Energy Commission (CEC), and Federal Energy Regulatory Commission (FERC) were reviewed to assess whether sufficient documentation exists to support the need for the TRTP. Based upon the information contained in these documents, it was determined that there is ample support to justify the need for the TRTP. It was determined that a high probability exists that sufficient generation will be sited in the TWRA to justify the network upgrades proposed. The TRTP is expected to provide the capacity to connect the resources listed in the Tehachapi Generation Queue (totaling 19 projects equaling 4,350 MW as of April 2006[3]) as well as provide additional system reliability to the CAISO-controlled grid. Furthermore, FERC's approval of the CAISO's proposed process of aggregating the interconnection requests of the projects in the Tehachapi Generation Queue for the purpose of establishing the necessary network system upgrades to accommodate all projects in the queue (19 in total) lends regulatory support for development of the TRTP. (Bagley, 2008)

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1 The Antelope Transmission Project, which provides 700 MW of transmission capacity, is comprised of three segments: Segment 1 or the Antelope Transmission Project (SCH No. 2005061161) and the Segments 2 & 3 of the Antelope Transmission Project (SCH No. 2006041160) were previously analyzed and approved by the CPUC and Forest Service (Segment 1 only).

2 FERC Order No. 2003 requires all public utilities that own, control, or operate facilities for transmitting electric energy in interstate commerce to provide interconnection service to electric generating facilities having a capacity of more than 20 megawatts.

3 The Tehachapi Generation Queue is consistently changing and has been updated since Ken Bagley's Memorandum Re: Need for the Tehachapi Transmission Project was provided as a reference for this Purpose and Need discussion. For the most recent reflection of projects in the queue, please see Table 2.9-2 (California Independent System Operator - Kern County Wind Generation Queue), which is provided at the end of Chapter 2 (Description of Alternatives, Including the Proposed Project). The queue is also addressed in Chapter 6 (Development of the Tehachapi Wind Resource Area).

Finally, it was determined that the TRTP will help alleviate concerns that have been raised by the CEC that the present transmission infrastructure is insufficient to permit utilities to meet their RPS requirements. It was independently concluded by the Lead Agencies that the TRTP would help to address several concerns presently facing California's electric industry including the following needs: (1) expand California's existing transmission infrastructure; (2) accommodate large quantities of renewable generation in order to meet the State's RPS goals; and (3) enhance system reliability in the Los Angeles area. As such, the purpose and need for the TRTP, as defined above by the Lead Agencies, has been confirmed independent of SCE's application filings.

Section 1.2.1, below, provides background information regarding the purpose and need of the TRTP. In addition, Sections 1.2.2 and 1.2.3 present information on the Project purpose for the CPUC and Forest Service, respectively, in responding to the applications submitted to these agencies by SCE.

1.2.1 Background

As noted above, the purpose of the proposed TRTP is to provide the electrical facilities that are needed to integrate new wind generation in the TWRA. The Project has also been designed to satisfy the following objectives: (1) accommodate the potential renewable power generation that has been identified in the TWRA, thereby enabling SCE and other California utilities to comply with the California RPS; (2) address projected load growth in the Antelope Valley; and (3) address South of Lugo transmission constraints. To allow for a better understanding of the purpose and objectives of the TRTP, the following discussion provides additional information regarding the RPS requirements that are currently driving renewable energy development, SCE's obligation to provide transmission capacity to the TWRA, needed improvements to SCE's transmission system, and the roles of the CPUC and USDA Forest Service as the CEQA and NEPA Lead Agencies.

Renewables Portfolio Standard (RPS) Requirements

While the TRTP is proposed to integrate new wind generation in the TWRA, the need for this Project arose from the mandates of the California RPS. The California RPS was established in 2002 by Senate Bill 1078, and requires investor-owned utilities, including retail sellers of electricity such as SCE, to increase their sale of electricity produced by renewable energy sources (such as wind) by at least one percent per year, achieving 20 percent by 2017. These requirements were accelerated by the passage of Senate Bill 107 to be consistent with the Energy Action Plan (EAP) adopted in 2003. The EAP, adopted by the CPUC, CEC, and the now defunct California Power Authority, pledged that the agencies will accelerate RPS implementation to meet the 20 percent goal by 2010 instead of 2017 (CEC, 2007).

The Public Resources Code (Section 25740) and the Public Utilities Code (Section 399.15) have been amended to include the most recent RPS target requiring investor-owned utilities to procure 20 percent of their total retail sales from renewable energy resources by 2010. However, a more aggressive RPS goal of procuring 33 percent renewable energy by the year 2020 is currently proposed by the State, and Governor Schwarzenegger has directed the CEC to study the feasibility of this goal (CEC, 2007).

Tehachapi Wind Resource Area (TWRA)

As a crucial step in meeting the California RPS goals, the CPUC must explore possibilities for the removal of constraints on the transmission of electricity from its point of generation to its point of use, referred to as the "load center". In order for SCE and other investor-owned utilities to satisfy the target goal of procuring 20 percent renewable energy by 2010, new transmission facilities are required to interconnect remote areas of

high renewable power generation, such as the TWRA, to areas of high load, including portions of the Los Angeles and San Bernardino metropolitan areas that are within the SCE service area.

The TRTP would provide the necessary transmission network to interconnect proposed wind generation in the TWRA, which is considered one of the largest resources for wind energy in California (TCSG, 2005). The CEC has estimated that there is approximately 4,500 MW of potential wind development in the Tehachapi and Antelope Valley region (TCSG, 2006). In order to assess the ability of this region to contribute toward meeting the State's mandated RPS goals, the CPUC issued Decision 04-06-010 which ordered the formation of a collaborative study group to develop a comprehensive transmission development plan for wind energy in the Tehachapi area (CPUC, 2004). This decision also required SCE to prepare and file a certificate of public convenience and necessity (CPCN) application[4] for Tehachapi transmission upgrades in coordination with the recommendations of the collaborative study group (CPUC, 2004).

In conjunction with the Tehachapi Collaborative Study Group (TCSG), SCE has identified a phased development plan for transmission infrastructure in the TWRA (TCSG, 2006). The purpose of this phased transmission plan, called the Tehachapi Transmission Project (TTP), is to accommodate the generation of renewable wind energy in the Tehachapi region. The TTP is being implemented in separate phases, where the proposed TRTP is Phase 3. The approved Antelope-Pardee 500-kV Transmission Project or Antelope Transmission Project Segment 1 represents Phase 1 of the TTP, while the approved Antelope Transmission Project Segments 2 & 3 represents Phase 2 of the TTP. The CPCN applications for each of these three phases of the TTP were submitted separately for consideration by the CPUC over a period of several years and, as such, separate environmental analyses have been prepared to analyze and disclose the potential environmental effects of constructing, operating, and maintaining each of the three phases.

According to the CEC's 2005 Integrated Energy Policy Report (IEPR), "California needs major investments in new transmission infrastructure to interconnect with remote renewable resources in the Tehachapi and Imperial Valley areas, without which it will not be able to meet its RPS targets" (CEC, 2005). California RPS targets are required by Public Utilities Code Section 399.14. The IEPR further explains that the "Tehachapi area transmission projects" proposed by SCE, which include the proposed TRTP, are critical in order to facilitate the development of renewable energy resources required by the State RPS targets and recommends that these phases of the TTP should move forward "expeditiously."

Projected Load Growth and Transmission Constraints

In addition to contributing toward RPS compliance, the TRTP would satisfy the Project objectives of improving SCE's transmission system reliability and mitigating existing transmission constraints. The Antelope Valley area has experienced above-average electrical demand growth and is forecast to continue above-average growth of about five percent per year. SCE currently forecasts that the bulk transmission system facilities in this area will experience reliability problems by 2011. Currently, operating procedures that are used to mitigate reliability problems during heavy load conditions are not considered sufficient to mitigate thermal overload on the existing Antelope-Mesa and Antelope-Vincent 220-kV T/Ls. As part of SCE's development plan for the Tehachapi area, the proposed TRTP would include transmission upgrades north of Vincent Substation that would interconnect and transmit the electrical power from new generation resources in order to both reliably serve the load requirements for the Antelope Valley and deliver power to Vincent Substation.

[4] The CPUC is charged with regulating privately owned utility infrastructure. As set forth in the California Public Utilities Code, no investor-owned utility may construct or expand a transmission line or generating facility without obtaining a CPCN from the CPUC (PUC Sections 1001 to 1013; 1091 to 1102).

The Project would also improve the reliability of the CAISO-controlled transmission network within the South of Lugo transmission corridor, which is an existing transmission path between the northern portion of SCE's service territory and the Los Angeles Basin. The current network configuration transports power flowing from northern California and southern Nevada to Lugo Substation. The power is then transported to load centers in the Los Angeles Basin via three 500-kV T/Ls that run south from Lugo Substation through the Cajon Pass along the I-15 freeway and terminate at Mira Loma Substation. The Cajon Pass is subject to annual forest fires that affect collocated transmission lines, as demonstrated in 2002 when all three of the existing 500-kV T/Ls were lost due to a forest fire. SCE also anticipates that the South of Lugo transmission corridor will exceed its current transfer capability limitation, creating a bottleneck within the CAISO transmission network. To relieve this bottleneck and to mitigate the loss of transmission from future forest fires, the proposed TRTP would provide additional transmission paths into Mira Loma Substation and would increase the substation's total import capability from 6,400 MW to 7,400 MW.

Executive Order 13212

In response to a clearly identified need to improve energy transmission infrastructure throughout the country, President George W. Bush issued Executive Order 13212 on May, 18, 2001, in order to encourage the expedited and environmentally responsible development of transmission infrastructure. This Executive Order consists of four sections as follows: Section 1 (Policy); Section 2 (Actions to Expedite Energy-Related Projects); Section 3 (Interagency Task Force); and Section 4 (Judicial Review). With regard to the expedited agency review of permits and other relevant documents (including environmental analyses) Section 2 states the following:

> *For energy-related projects, agencies shall expedite their review of permits or take other actions as necessary to accelerate the completion of such projects, while maintaining safety, public health, and environmental protections. The agencies shall take such actions to the extent permitted by law and regulation, and where appropriate.* (CEQ, 2001)

In observance of this Executive Order and to the greatest extent feasible, the Lead Agencies for the proposed TRTP have worked in coordination with the Project proponent (SCE) to fully analyze the proposed Project and alternatives in compliance with NEPA and CEQA and to expedite the environmental review process.

1.2.2 California Public Utilities Commission

Pursuant to Article XII of the Constitution of the State of California, the CPUC is charged with the regulation of Investor-Owned Utilities (IOUs) operating within California, including the Project proponent, SCE. The CPUC is the Lead Agency for CEQA compliance in evaluation of SCE's proposed Project. In accordance with CEQA requirements, the CPUC's purpose in evaluating this EIR/EIS is to determine the adequacy of the document according to CEQA and to provide certification of CEQA compliance if it is determined that the EIR/EIS satisfies all CEQA requirements.

After the evaluation and certification of the EIR/EIS, the CPUC will also respond to SCE's application for a Certificate of Public Convenience and Necessity (CPCN, Application A.07-06-031), as filed on June 29, 2007. Prior to taking action to approve SCE's CPCN application, the CPUC must determine that the proposed Project is consistent with the CPUC's purpose and objectives for granting CPCNs, including, where applicable, compliance with CPUC General Order 131-D. This order states that no electric public utility shall construct electric transmission line facilities designed for operation at 200 kV or more without the CPUC having first found that the facilities are necessary "to promote the safety, health, comfort, and convenience of

the public, and that they are required by the public convenience and necessity." In addition, the CPUC seeks to facilitate the achievement of the State of California's goals for the distribution of renewable energy generated by IOUs in California. As a crucial step in fulfilling this purpose, the CPUC must explore possibilities for the removal of constraints on the transmission of electricity from its point of generation to its point of use, such as would be facilitated by the proposed Project. In connection with this purpose, the CPUC must also attempt to further the implementation of other State policies and programs related to power generation and transmission.

The CPUC has assigned Administrative Law Judge (ALJ) Victoria Kolakowski to prepare the Proposed Decision and oversee the hearings on the proposed Project, and Commissioner Dian Gruenich is the Assigned Commissioner for the CPCN application. The ALJ, in accordance with her Scoping Memo, will hold Evidentiary Hearings on the CPCN application and expects to issue a Proposed Decision on the Project after release of the Final EIR/EIS. The ALJ's Proposed Decision and the Evidentiary Hearings will cover issues of project need, project cost, and other considerations.

1.2.3 USDA Forest Service

SCE filed an application for a Special Use authorization with the USDA Forest Service on June 29, 2007, seeking permission for construction, operation, and maintenance of the proposed transmission facilities across NFS lands managed by the ANF. As the federal Lead Agency, the Forest Service must respond to SCE's Special Use application by providing a decision regarding issuance of a Special Use authorization. The Forest Service is responsible for compliance with the requirements of NEPA, Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), the Forest Land Management Plan, and the Forest Service Handbooks. The Forest Service Handbook Section 2709.11, Chapter 10, defines the Forest Service's role in authorizing Special Use authorizations across NFS lands. Upon receipt of a Special Use application, the authorized officer of the Forest Service will determine whether the proposal meets screening criteria requirements. A proposal that satisfies the initial and second-level screening criteria can be accepted as a formal written application which is subject to an environmental analysis pursuant to NEPA. A Special Use authorization may be issued once all NEPA prerequisites have been met and the administrative appeal process has expired without an appeal being filed, or if an appeal has been filed, it has been resolved through all levels (FSH 2709.11, Chapter 10, Sections 12 through 14).

The Forest Service will review SCE's Special Use application for consistency with the governing 2005 Forest Plan and with other policies and regulations relevant to the management of NFS lands. The intent and purpose of the Forest Service in reviewing SCE's application is to implement the policies and objectives of the Forest Plan and to ensure that any action on NFS lands, as authorized by a Special Use authorization, is in compliance with the Forest Plan. The Forest Service may deny authorization for Special Uses for a number of different reasons, such as if "the proposed use would be inconsistent or incompatible with the purpose(s) for which the lands are managed, or with other uses," or the proposed use "would not be in the public interest" (36 CFR 251.5).

The Forest Service is required to balance multidisciplinary objectives in the decision-making process for Special Use authorizations. An amendment to the 2005 Forest Plan is required for any action that is included under the Special Use authorization but would otherwise be incompatible with the Forest Plan (per 36 CFR 219.10(e)). Therefore, in evaluation of the proposed Project, the Forest Service must identify all Forest Plan amendments that would occur in conjunction with approval of the proposed Project's Special Use

authorization. Specific Forest Plan amendments that are expected to be required under the proposed Project or an alternative to the Project are described in the following section.

USDA Forest Service Purposes in Analyzing the Proposed Action

As the lead federal agency, the USDA Forest Service has identified the following agency-specific purposes (objectives) in analyzing the proposed Project and alternatives. This agency-specific definition better identifies the context in which the agency may authorize this type of project.

- Minimize adverse environmental effects to NFS lands, such as impacts to the following resources: visual, biological, cultural, recreation, air, soil, and water, among others as applicable
- Minimize the effects of urbanization, or negative effects to open space and natural settings, on the Angeles National Forest
- Ensure that future Forest management activities such as wildland fire fighting, among others, are not detrimentally affected by the location and/or design of the proposed action
- Ensure that the location of the transmission line on NFS lands maximizes the accommodation of future utility needs

Pursuant to the Federal Land Policy and Management Act (FLPMA) of 1976 (as amended), the Forest Service's need for action is to respond to applications from SCE for a Special Use authorization to construct, maintain, and use transmission lines (and ancillary improvements) through the ANF. The Forest Service will consider the application for use of NFS lands to ensure that the proposed action is in the public interest and is appropriate based on the governing land management plan. In addition, in compliance with Executive Order 13212, which is described above in Section 1.2.1 (Background), the USDA Forest Service will work in coordination with the CPUC and SCE to assess the proposed Project in an expeditious manner, to the maximum extent feasible without jeopardizing the integrity of this analysis, thereby ensuring that transmission needs are met with minimal environmental impacts.

1.3 Agency Use of this Document

When applicable, both CEQA and NEPA encourage agencies to prepare a single joint environmental analysis/assessment document, because the environmental review process under both laws are similar and somewhat parallel. Therefore, for the purposes of this proposed Project, the CPUC (CEQA Lead Agency) and the USDA Forest Service (NEPA Lead Agency) have entered into a Memorandum of Understanding (MOU) to jointly direct the preparation of this EIR/EIS, thereby serving the permitting and decision-making requirements of both agencies. However, the CPUC and the Forest Service will take separate decision actions on the EIR/EIS prepared for the proposed Project.

California Public Utilities Commission

The CPUC is responsible for issuing a decision on SCE's CPCN application, approval of which is required prior to Project construction, operation, and maintenance (see Section 1.2.2 above). The CPUC will make the decision to approve or deny SCE's CPCN application after reviewing the Final EIR/EIS for consistency with CEQA requirements. If the Final EIR/EIS shows that the proposed Project or an alternative to the proposed Project would have significant and unavoidable (not mitigable) impacts but the CPUC still approves the CPCN, then the CPUC's decision on the application must include a "Statement of Overriding Considerations," which would explain the reasons for the application's approval.

USDA Forest Service

The USDA Forest Service is responsible for issuing a decision to approve or deny the Special Use authorizations and Forest Plan amendments that are required in order to construct and operate/maintain the proposed Project on NFS lands in the ANF. Using the Final EIR/EIS as a basis for decision-making, the Regional Forester of the Pacific Southwest Region, USDA Forest Service, will make a decision on whether to authorize the required 50-year term Special Use authorization for the construction, operation, and maintenance of the proposed 500-kV transmission lines and ancillary improvements on NFS lands before any Project construction activities would be permitted to begin on NFS lands.

Following completion of the Final EIR/EIS, the Forest Service will review the document for consistency with NEPA and will issue a Record of Decision (ROD) to document the decision to either approve or deny the required 50-year term Special Use authorization for the Project. The ROD will also include the Forest Service's decision on any amendments that will be required to the governing 2005 Forest Plan in order for Project construction, operation, and maintenance to occur. The following FLMP amendments are expected to be necessary prior to implementation of the proposed Project or an alternative to the Project:

- Scenic Integrity Objectives (SIOs) along the existing or proposed utility corridor would be changed;
- Forest Standard related to the Pacific Crest National Scenic Trail (S1) would be modified, as the proposed transmission facilities would adversely impact foreground views; and
- Forest Standard addressing Riparian Conservation Areas (RCAs) would be modified, as the construction and/or improvement to new spur roads and existing access roads on NFS lands would adversely affect these areas.

The details of these amendments to the Forest Plan are provided as part of the description of each alternative in Section 2 of this EIR/EIS. The ROD is subject to administrative review and may be appealed under 36 CFR 215.

Other Agencies

In addition to the CPUC and the USDA Forest Service, several other State and federal agencies will also use the Final EIR/EIS in their decision-making processes, particularly as relevant to the issuance of permits for Project construction, operation, and maintenance. As Alternative 4 would traverse State Park lands within the Chino Hills State Park (CHSP), construction, operation, and maintenance of this alternative would require approval from the California Department of Parks and Recreation. However, the California Department of Parks and Recreation may only issue permits for projects that are in compliance with the State Park general plans, and Alternative 4 would conflict with the CHSP General Plan (see discussion in Section 3.15). Consequently, prior to issuing any approval for Alternative 4, the California Department of Parks and Recreation would need to develop an amendment to the CHSP General Plan and that amendment would need to be submitted to the California State Park and Recreation Commission for review and approval. Therefore, both the Department of Parks and Recreation and the State Park and Recreation Commission would be responsible agencies under CEQA for Alternative 4. In addition, coordination with the California Department of Toxic Substances Control (DTSC) would be required for Routes C and D of Alternative 4 because those routes traverse a portion of the Aerojet Chino Hills Facility that is the subject of Corrective Action for the cleanup of explosive chemicals, perchlorate, uranium, and ordnance. As part of the Feasibility Study process for the Corrective Action for the facility, DTSC will select a proposed future land use for the site and that future land use selection would need to allow the construction of transmission infrastructure in order for Route 4C or 4D to be implemented.

Table 1-1 provides a list of the anticipated federal and State permits and approvals that would be required for the proposed Project and alternatives, including those that would be issued by the Lead Agencies. Please note that CEQA review is only required for State or local approvals that are considered discretionary in nature.

Table 1-1. Required Federal and State Permits and Approvals

Agency	Permit / Approval / Consultation
FEDERAL	
USDA Forest Service	A 50-year term Special Use authorization for the construction, operation, and maintenance of the proposed 500-kV transmission line and ancillary improvements on NFS lands; and amendments to the 2005 Forest Plan to ensure that all actions approved under the Special Use authorization are consistent with management direction.
U.S. Army Corps of Engineers (USACE)	Amendment or replacement of the existing easement across lands owned by the USACE.
	Clean Water Act Section 404 permit, for Project activities that would result in discharge of fill or dredged material in and adjacent to Waters of the United States.
U.S. Fish and Wildlife Service	Endangered Species Act Biological Opinion, if Project activities would result in adverse effect on a federally threatened, endangered, proposed, petitioned, or candidate species, or if Project activities would impact occupied designated critical habitat.
Federal Communications Commission	Licenses for new microwave paths.
Federal Aviation Administration	Permits for new microwave towers.
STATE/REGIONAL	
California Public Utilities Commission	Certificate of Public Convenience and Necessity (CPCN).
California Department of Parks and Recreation	Permit for construction, operation, and maintenance of Alternative 4 across Chino Hills State Park (CHSP) lands. Permits are only issued for projects that comply with the State Park general plans and, therefore, the Department of Parks and Recreation is responsible for developing any necessary amendment(s) to the CHSP General Plan, as subject to review and approval by the California State Park and Recreation Commission (see below).
California State Park and Recreation Commission	Review and approve any necessary amendment(s) to the CHSP General Plan that are submitted by the California Department of Parks and Recreation (Alternative 4 only).
California Department of Toxic Substances Control	Approval of future land use(s) for the Aerojet Chino Hills Facility, which is currently undergoing Corrective Action. Project access roads may also need to traverse the facility's Open Burn/Open Detonation Unit, which is currently undergoing closure.
California Department of Fish and Game	Streambed Alteration Agreement (per Section 1602 of the California Fish and Game Code) for effects to the bed, channel, or bank of rivers, streams, or lakes.
	Incidental Take Permit (per Section 2081 of the California Fish and Game Code) for activities that would result in the take of species under the California Endangered Species Act.
California Air Resources Board	Portable Engine Registration for specified non-mobile portable engines.
Antelope Valley Air Quality Management District	Air Quality Permits for portable engines greater than 50 hp not registered under the CARB Portable Engine Registration Program.
South Coast Air Quality Management District	Air Quality Permits for portable engines greater than 50 hp not registered under the CARB Portable Engine Registration Program.
Kern County Air Pollution Control District	Air Quality Permits for portable engines greater than 50 hp not registered under the CARB Portable Engine Registration Program.
State Water Resources Control Board	National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activities.
California Department of Water Resources	Encroachment Permit required to traverse the California Aqueduct.
California Department of Parks and Recreation, State Historic Preservation Officer	Consultation and Memorandum of Understanding (MOU) per Section 106 of the National Historic Preservation Act.
California Department of Transportation, State and Local Project Development	Approval for private facilities running parallel to and falling in the rights-of-way of conventional highways with franchise rights from local agencies.
Division of Occupational Safety and Health (formerly CAL OSHA)	Construction permit (for construction of trenches or excavations which are five (5) feet or deeper and into which a person is required to descend).

No local discretionary approvals (e.g., use permits) are required of SCE because the CPUC has preemptive jurisdiction over the construction, operation, and maintenance of SCE facilities in California. This CPUC authority does not preempt the authority of special districts, such as local air pollution control districts, or other State agencies or the federal government. Although local use approvals are not required, SCE would still be required to obtain all ministerial building and encroachment permits from local jurisdictions per the CPUC's General Order 131-D, which requires SCE to comply with local building, design, and safety standards to the greatest degree feasible to minimize Project conflicts with local conditions. County jurisdictions from which SCE may be required to obtain ministerial building and encroachment permits for the proposed Project or a Project alternative include the following: Kern County, Los Angeles County, San Bernardino County, and Orange County. In addition, city jurisdictions from which SCE may be required to obtain permits for the proposed Project or a Project alternative include the following

- City of Baldwin Park
- City of Brea
- City of Chino
- City of Chino Hills
- City of Diamond Bar
- City of Duarte
- City of Industry
- City of Irwindale
- City of La Cañada Flintridge
- City of La Habra Heights
- City of Lancaster
- City of Monrovia
- City of Montebello
- City of Monterey Park
- City of Ontario
- City of Palmdale
- City of Pasadena
- City of Pico Rivera
- City of Rosemead
- City of San Gabriel
- City of South El Monte
- City of Temple City
- City of Whittier

The county and city jurisdictions listed above would be traversed by the proposed Project or a Project alternative. SCE may be required to obtain different types of ministerial and/or encroachment permits from various county and/or city agencies. For instance, the County of Los Angeles Public Works Department would likely require that SCE obtain permits for road use, excavation activities (for the cutting of public roadways), encroachment (of the public ROW), and construction activities. Similarly, the City of Los Angeles Department of Water and Power (LADWP) is expected to require a permit for the crossing of LADWP transmission lines. Other city jurisdictions, including those listed above, are expected to require encroachment permits, or similar authorization(s) for work conducted in the public ROW. As with the CPUC and the USDA Forest Service, these local permit-issuing agencies would use information provided in the Final EIR/EIS during their decision-making processes regarding permit issuance.

1.4 Overview of the Environmental Review Process

When a proposed project requires compliance with both CEQA and NEPA, the Lead Agencies may decide to collaborate in the preparation of a joint EIR/EIS document, as is the case with the proposed TRTP. In accordance with CEQA and NEPA requirements, the EIR/EIS must be completed before a decision to approve or deny the project can be made by the Lead Agencies which, in this case, are the CPUC (CEQA Lead Agency) and the USDA Forest Service (NEPA Lead Agency). The EIR/EIS must provide the following information: disclosure of the Project's expected impacts on the environment; recommended measures to reduce or avoid adverse impacts; and analysis of a reasonable range of feasible alternatives. The purpose of this process is to inform the public about the impacts of the Project and to provide agency decision-makers with vital Project information to aid in their decision(s) regarding Project approval. The basic contents of an EIR/EIS include:

- A description of the proposed Project/Action;
- A statement of objectives (per CEQA) and Purpose and Need for the action (per NEPA);
- A description of existing conditions in the Project area;

- An analysis of the potential environmental impacts of the proposed project and alternatives;
- Recommendations of mitigation measures that would reduce or avoid adverse impacts (for impacts identified under the proposed Project as well as alternatives to the Project); and
- A discussion of other required environmental topics, including adverse environmental effects that cannot be avoided, irreversible and irretrievable commitment of resources, growth-inducing effects, and the relationship between short-term use and long-term productivity of the environment. .

In preparing a joint EIR/EIS, individual requirements of both CEQA and NEPA must be met during the environmental review process. The State and federal processes begin in similar ways, with the filing of specified announcements that an environmental analysis is being prepared. Under CEQA, the EIR process is initiated by filing a Notice of Preparation (NOP) with the California State Clearinghouse in the Office of Planning and Research, thus indicating that a Draft EIR will be prepared. Similarly, under NEPA, the EIS process is initiated by publishing a Notice of Intent (NOI) to prepare an EIS in the *Federal Register*. These notices initiate a 30-day period during which public and agency input is solicited on the scope of issues and concerns that should be addressed in the EIR/EIS. As part of this scoping process, public meetings are conducted to present information on the proposed Project and to receive public input on the Project.

When the Draft EIR/EIS has been completed, it is distributed for public review and comment in accordance with the requirements of both CEQA (CEQA Guidelines §15087) and NEPA (NEPA Regulations 40 CFR 1506.6). Copies of the Draft EIR/EIS are also submitted to the U.S. Environmental Protection Agency (USEPA) (40 CFR 1506.9) and the California State Clearinghouse, as well as responsible, trustee, and cooperating agencies as defined by CEQA and NEPA. A Notice of Availability (NOA) of the Draft EIR/EIS is published in the *Federal Register* by the USEPA (40 CFR 1506.10). The NOA is also published in local newspapers and with the county clerk(s), per CEQA Guidelines §15087. Publishing the NOA initiates a public review and comment period for the Draft EIR/EIS that is typically 45 days in length. All comments and concerns regarding the Draft EIR/EIS must be received by the Lead Agencies before the end of the 45-day period in order to be considered in the Final EIR/EIS. During the 45-day comment period following publication of the NOA, a public hearing may be conducted to obtain public comment on environmental issues addressed in the Draft EIR/EIS. The date, time, and location of any public hearings, should they occur, will be announced in the *Federal Register* and in local newspapers.

Responses to substantive comments received on the Draft EIR/EIS will be prepared by the Lead Agencies and published in the Final EIR/EIS in accordance with CEQA Guidelines §15088, NEPA Regulations 40 CFR 1502.9, and Forest Service guidelines FSH 1909.15-2008-1.24.1. The Final EIR/EIS may present additional information in response to comments made on the Draft EIR/EIS and may include minor corrections to the Draft EIR/EIS that were discovered during the comment period, which may include the following: modification to the proposed Project or Project alternatives; development and evaluation of alternatives not previously considered by the agency; improvement or modification of the Project analysis as needed; factual corrections; and/or explanation as to why certain comments do not warrant further agency response. If the changes are minor and do not rise to a level requiring preparation of a Supplement to an EIR (CEQA §15163) or a Supplemental EIS (NEPA 1502.9(c)(1)) a Final EIR/EIS is prepared. Once the Final EIR/EIS is complete, another NOA is published in the *Federal Register* by the USEPA.

After the Final EIR/EIS has been reviewed and approved by the Lead Agencies, the federal Lead Agency prepares a Record of Decision (ROD) in accordance with NEPA requirements (40 CFR 1505.2). The ROD provides a public record explaining why the federal Lead Agency chose a particular course of action. Although the ROD typically cannot be approved until at least 30 days after the NOA for the Final EIR/EIS is published in the *Federal Register*, 40 CFR 1506.10(b)(2) provides an exception for Lead Agencies which have a formal

appeal process, including the USDA Forest Service. Therefore, in this case the deciding officer may sign the ROD at the same time the NOA for the Final EIR/EIS is published in the *Federal Register*. The federal Lead Agency's approval decision, as documented in the ROD, cannot be implemented any sooner than 50 days after the date the legal notice is published in the newspaper of record publicizing the decision of the Lead Agency (36 CFR 215.7; 36 CFR 215.9 (a)).

Similar to the required federal process, CEQA Guidelines §15090 requires that the CEQA Lead Agency review the Final EIR/EIS and certify the document's adequacy under CEQA prior to taking any action to approve the Project or an alternative to the Project. If the Final EIR/EIS determines that the proposed Project would lead to one or more significant environmental effects that cannot be mitigated to a less-than-significant level, the Lead Agency must make specific findings regarding its approval of the Project (CEQA Guidelines §15091). These findings must either state that alterations have been made to the Project to avoid or substantially reduce each significant impact, or that specific economic, legal, social, technological, or other considerations make mitigation of a significant impact infeasible.

If the CEQA Lead Agency decides to approve the proposed Project or an alternative to the proposed Project even though significant unavoidable impacts would occur, the Lead Agency must prepare and adopt a Statement of Overriding Considerations (SOC), which explains why the significant and unavoidable environmental impacts associated with the project are acceptable when compared to the benefits of the proposed Project or an alternative to the Project (CEQA Guidelines §15093). If an SOC is required, it must be prepared and adopted before the Lead Agency takes action to approve the proposed Project or selected alternative. The CEQA Lead Agency must also file a Notice of Determination (NOD) with the California State Clearinghouse within five working days after approval of a Project for which an EIR was prepared (CEQA Guidelines §15094).

The proposed Project or approved alternative to the Project cannot be initiated before the EIR/EIS is finalized, the CEQA-specific findings (including the SOC) are approved, the NEPA-required ROD is signed and approved, and an approval is granted by the CEQA Lead Agency. In addition, various other agencies may need to provide approvals prior to Project initiation, as discussed above in Section 1.3 (Agency Use of this Document). These agencies will utilize the information contained in the Final EIR/EIS in making their decisions regarding permits and approvals required for the Project.

1.5 Reader's Guide to this Document

This Reader's Guide section includes a description of documents that are incorporated by reference in the EIR/EIS (Section 1.5.1), as well as a discussion of how information available in the EIR/EIS is presented and how to locate specific types of information in the document (Section 1.5.2).

1.5.1 Incorporation by Reference

The Proponent's Environmental Assessment (PEA) for the proposed TRTP, as prepared by SCE and submitted as part of Application No. A.07-06-031 contains Project information that is incorporated by reference in the EIR/EIS, as appropriate depending upon the specific environmental issue area. The full PEA is available for public review via the Internet at the following address: ftp://ftp.cpuc.ca.gov/gopher-data/environ/tehachapi_renewables/TRTP.htm.

Also incorporated by reference into this EIR/EIS are a series of Specialist Reports, which include detailed technical environmental analyses prepared for certain resource/issue areas during the EIR/EIS analysis process. Due to the nature of certain resource/issue areas that are less technical than others, Specialist Reports

were not required for all sections. As such, Specialist Reports were prepared for the following resource/issue areas: Air Quality; Biological Resources (including noxious weed and avian risk analyses); Cultural Resources; Geology, Soils, and Paleontology; Hydrology and Water Quality; Visual Resources. These Specialist Reports are available for review upon request, as well as at the Project repository sites (please see the Project's Notice of Preparation (NOP), Appendix B, for a complete list of repository sites), on the Project website (ftp://ftp.cpuc.ca.gov/gopher-data/environ/tehachapi_renewables/TRTP.htm), and through the Lead Agencies (CPUC and USDA Forest Service).

The environmental resource/issue area analyses presented in the Draft EIR/EIS draw upon technical analyses provided in the Specialist Reports as necessary. In addition, each EIR/EIS issue area analysis presents information required by CEQA and NEPA which, as previously described, includes the following: disclosure of expected impacts on the particular Issue Area; recommended mitigation measures to reduce or avoid significant impacts; and analysis of a reasonable range of feasible alternatives to the proposed Project. Documents and reports which are incorporated by reference in the Draft EIR/EIS include the following:

SCE (Southern California Edison). 2007. *Proponent's Environmental Assessment, Tehachapi Renewable Transmission Project (TRTP)*. June 27, 2007.

Aspen Environmental Group (Aspen). 2009. *Tehachapi Renewable Transmission Project Riparian Conservation Area Report*. January.

Aspen. 2008. *Tehachapi Renewable Transmission Project: Air Quality Specialist Report*. December.

Aspen and H.T. Harvey & Associates. 2008. *Tehachapi Renewable Transmission Project: Biology Specialist Report*. December.

Applied Earthworks. 2008. *Tehachapi Renewable Transmission Project: Cultural Resources Specialist Report*. December. (Confidential)

GTC (Geotechnical Consultants, Inc.), prepared under subcontract to Aspen Environmental Group. 2008. *Tehachapi Renewable Transmission Project: Geology, Soils, and Paleontology Specialist Report*. December.

Anderson, Lee Roger. 2008. *Tehachapi Renewable Transmission Project: Visual Resources Specialist Report*. December.

As noted above, SCE's PEA for the proposed Project is incorporated by reference in this Draft EIR/EIS. It is important to note that the PEA was used extensively to develop the proposed Project description presented in Chapter 2 (Description of Alternatives) of this EIR/EIS. In addition, information that was presented in the PEA for the proposed Project but was also applicable to Project alternatives, such as setting descriptions and construction methodologies, was also used in the development of Project alternatives.

1.5.2 EIR/EIS Organization

In compliance with CEQA and NEPA requirements as described in the preceding sections, this EIR/EIS includes the following sections:

- **Executive Summary**. A summary description of the proposed Project, the alternatives, and their respective environmental impacts are included. A summary table lists impacts and the associated mitigation measures for each significant impact identified for the proposed Project and alternatives.

- **Chapter 1: Introduction**. A brief overview of the proposed Project and alternatives to the Project, purpose of and need for the Project, and the public agency use of the EIR/EIS are described.
- **Chapter 2: Description of Alternatives and Proposed Project**. Detailed descriptions of the proposed Project/Action and alternatives to the proposed Project are presented.
- **Chapter 3: Environmental Analysis**. A detailed description of the affected environment and regulatory framework is presented for each technical issue area. Each of the technical issue area sections also provide the detailed analysis of proposed Project impacts and impact of the Project alternatives in equal level of detail. Mitigation measures are presented that would help reduce or minimize any potential impacts identified as resulting from implementation of the Project.
- **Chapter 4: Comparison of Alternatives**. The process for selection of proposed Project alternatives is described along with the steps and rationale for elimination of certain alternatives from further analysis. Also, a comparison of the proposed Project and alternatives are provided.
- **Chapter 5: Other Environmental and Regulatory Considerations**. This section addresses the various permitting and compliance requirements should the Project be implemented. The long-term implications of the action are also discussed. This chapter also discusses concerns related to magnetic fields, terrorism, and energy conservation.
- **Chapter 6: Development of the Tehachapi Wind Resource Area (TWRA).** As mentioned above in Section 1.2 (Purpose and Need) the potential effects associated with development of wind generation projects in the TWRA are addressed in this EIR/EIS because the proposed Project would meet energy transmission needs for such future projects. Therefore, this chapter addresses the TWRA through discussion of the following: elements of construction and operation of wind turbines; existing environmental setting; applicable rules, regulations, and standards; and potential environmental impacts associated with wind development. This chapter also includes a summary of the expected environmental impacts associated with two proposed wind projects: the Alta-Oak Creek Mojave Project, and the PdV Wind Energy Project, both of which are located in the TWRA.
- **Chapter 7: Consultation and Coordination**. A description of the environmental review process and public participation program for the EIR/EIS is provided.
- **Chapter 8: References**. This chapter provides a listing of research conducted in preparation of the EIR/EIS.
- **Chapter 9: Glossary/Acronyms**. Definitions to terms used in the EIR/EIS are provided.
- **Chapter 10: Index**. An index of important or useful subjects is provided for ease in locating information in the EIR/EIS.
- **Appendices**. Technical background information used in preparation of the EIR/EIS is included.
    - Appendix A: Alternatives Screening Report
    - Appendix B: Notice of Preparation, Notice of Intent, and Federal Register Notice
    - Appendix C: Air Pollutant Emissions Calculations
    - Appendix D: Project Road Crossings
    - Appendix E: Summary of the PdV Wind Energy Project EIR
    - Appendix F: Management Indicator Species Report
    - Appendix G: Biological Assessment
    - Appendix H: Biological Evaluation

In order to guide the reader to topics of interest in this EIR/EIS document, the following tables have been prepared to describe the location of specific subjects within the various sections of the EIR/EIS. For topics that are referred to throughout the document, Table 1-2 directs the reader to the primary discussions of these topics. In addition, Table 1-3 describes the location of topics that are specific to particular environmental resource/issue areas.

Table 1-2. Reader's Guide - General Topics

Topic	Location in Document
Proposed Project and Alternatives	• Sections 2.1 through 2.6 describe in detail the Project components and routes for the six alternatives that were analyzed within the EIR/EIS. • The Alternatives Screening Report (Appendix A) discusses the identification and screening process for 29 potential Project alternatives, including alternatives eliminated from detailed analysis. • An analysis of direct, indirect, and cumulative effects associated with each of the six alternatives can be found in the respective issue area sections of Chapter 3 (see Sections 3.2 through 3.17). • Chapter 4 includes a comparison of the Project alternatives, as well as a discussion of the CEQA Environmentally Superior Alternative and the NEPA Lead Agency Preferred Alternative (to be included in the Final EIR/EIS).
Angeles National Forest (ANF)	• Section 2.2 provides a description of the Project components that are proposed within the boundaries of the ANF. • A discussion of the recreational resources within the ANF is included in Section 3.15 (Wilderness and Recreation). • Impacts to the visual quality of the ANF as a result of the Project are discussed in Section 3.15 (Visual Resources). • Each of the other issue areas also describes the potential effects of the Project in the ANF (see Sections 3.2 through 3.17).
U.S. Army Corps of Engineers (USACE)	• Discussion of the USACE is presented throughout this Introduction (Chapter 1), largely with regard to USACE lands that would be traversed by the Project in the vicinity of Santa Fe Dam and Whittier Narrows (Segments 7 and 8).
California Public Utilities Commission (CPUC)	• The role of the CPUC as the CEQA Lead Agency for the TRTP is described in Sections 1.3 through 1.5.
Chino Hills State Park	• A description of the recreational resources and Project-related impacts associated with Chino Hills State Park is included in Section 3.15 (Wilderness and Recreation). • The Project's effect on the aesthetics of this park is discussed in Section 3.14 (Visual Resources).
Cumulative Effects	• The environmental impact analysis for each of the respective issue area sections (Sections 3.2 through 3.17) includes a discussion of reasonably foreseeable future projects and the cumulative effects associated with the TRTP.
Glossary of Terms and Acronyms	• Chapter 9 provides definitions for terms used throughout the document (Section 9.1: Glossary of Terms) as well as common acronyms (Section 9.2: Acronyms).
Long-Term Project Effects	• Section 5.1 (Long-Term Implications), describes the Project's irreversible and irretrievable commitment of resources, adverse environmental effects that cannot be avoided, and associated growth-inducing effects.
Mitigation Measures	• The environmental effects analysis for each of the respective issue area sections (Sections 3.2 through 3.17) includes mitigation measures that are recommended to reduce the significance of Project impacts. • The aforementioned sections also describe the Applicant-Proposed Measures that are considered part of the proposed Project. • A Mitigation Monitoring Program will be included in the Final EIR/EIS.
Pacific Crest National Scenic Trail (PCT)	• A discussion of Project effects on the recreational use of the PCT is included in Section 3.15 (Wilderness and Recreation). • Impacts to the scenic integrity of the PCT and conflicts with the Angeles National Forest Land Management Plan are discussed in Section 3.15 (Visual Resources).
Permitting Agencies	• Section 1.4 (Agency Use of This Document) includes a list of anticipated federal, State, and local permits and approvals that are required for the Project.
Applicable Regulations and Policies	• Any regulation or policy that required further analysis is discussed in the respective issue area of Chapter 3 (see Sections 3.2 through 3.17). • The Project's compliance with applicable federal environmental regulations and policies is also discussed in Section 5.2.
Right-of-Way Expansion	• Sections 2.2 through 2.6 describe in detail the route components for the six Project alternatives, including the locations of expanded and new right-of-way (ROW). • An analysis of direct, indirect, and cumulative effects associated with the proposed new ROW or ROW expansion can be found in the respective issue area sections (see Sections 3.2 through 3.17).
Tehachapi Wind Resource Area (TWRA)	• A description of the Tehachapi Wind Resource Area and the role of the Project in the development of this area are included in Section 5.1 (Long-Term Implications) and Chapter 6 (Development of the Tehachapi Wind Resource Area).

Table 1-2. Reader's Guide - General Topics	
Topic	Location in Document
Tower Types	• Section 2.2 describes the types (i.e., tubular steel pole versus lattice steel tower) and locations of the transmission towers that are proposed along the Project route. Figures 2.2-2 through 2.2-63 illustrate the types of transmission towers proposed along each segment of the Project. • A discussion of the aesthetic effects of these towers is included in Section 3.14 (Visual Resources).
USDA Forest Service	• The role of the USDA Forest Service as the NEPA Lead Agency for the Project is described in Sections 1.3 through 1.5.

In order to supplement the general topics guidance provided in Table 1-2, an additional table (Table 1-3) has been prepared to guide readers on topics specific to each environmental Issue Area addressed in the EIR/EIS. Many of the topics listed in Table 1-3 were identified as issues or concerns by the public during the public scoping process.

Table 1-3. Reader's Guide - Resource/Issue Area Topics	
Topic	Location in Document
Air Quality	• Section 3.3 (Air Quality) describes existing environmental conditions and analyzes environmental impacts related to air quality. • A discussion of the Project's conformity with the Clean Air Act and other environmental regulations and policies that pertain to air quality can be found in Section 3.3.3 (Air Quality: Applicable Laws, Regulations, and Standards), as well as in Section 5.2 (Compliance with Applicable Federal Environmental Regulations and Policies).
Effects on Wildlife	• Section 3.4 (Biological Resources) describes the existing environmental conditions of the biological study area, and analyzes impacts associated with loss of habitat, federally and State protected species, and special-status species.
Construction Noise	• An analysis of the direct, indirect and cumulative effects of noise resulting from Project construction is included in Section 3.10 (Noise). • Section 3.10 also recommends mitigation measures to reduce potential construction-related noise impacts associated with the Project.
Corona Noise	• Section 3.10 (Noise) describes the existing audible corona noise calculated along the Project route, and discusses Project-related increases in corona noise from the operation and maintenance of proposed transmission lines and substations. • Section 3.4 (Biological Resources) addresses potential effects that Project-related corona noise would be expected to have on wildlife and biological resources.
Cumulative Impacts	• Cumulative environmental impacts of the proposed Project and alternatives are evaluated in each Issue Area section; please see Sections 3.2 through 3.17. • Cumulative impacts are those that would occur if impacts of the proposed Project or an alternative would combine with similar affects of other projects within the geographic scope of the analysis.
Electric and Magnetic Fields (EMF)	• EMF is discussed in Sections 3.17 and 5.3.1. Section 3.17 provides information related to electrical interference and shock hazards. • Section 5.3.1 provides an overview of current knowledge about potential health concerns associated with magnetic fields.
Electrical Interference	• Section 3.17 (Electrical Interference and Hazards) describes the Project's interference with communication, radio, and television and electronic equipment.
Endangered Species	• Endangered species as well as sensitive and listed plant and wildlife species are discussed in Section 3.4 (Biological Resources).
Environmental Justice	• Section 5.2 (Compliance with Applicable Federal Environmental Regulations and Policies) includes a discussion of whether and how the impacts of the TRTP disproportionately affect minority populations and low-income populations in compliance with Executive Order 12898.
Erosion	• Issues and concerns related to the potential for the proposed Project or an alternative to introduce erosion-related impacts are discussed in Section 3.7 (Geology, Soils, and Paleontology). • Section 3.8 (Hydrology and Water Quality) addresses water-quality related erosion issues, and Section 3.4 (Biological Resources) discusses erosion in terms of potential effects on natural habitat quality.
Farmland	• Section 3.2 (Agricultural Resources) provides analysis of farmland and agricultural lands in and near the Project Area.

Table 1-3. Reader's Guide - Resource/Issue Area Topics

Topic	Location in Document
Health Concerns	• The effects to public health associated with hazardous waste generated by Project construction, operation, and maintenance are discussed in Section 3.6 (Environmental Contamination and Hazards). • Section 3.17 (Electrical Interference and Hazards) describes the potential shock hazards and Project effects on cardiac pacemakers. • Section 5.3.1 provides an overview of current knowledge about potential health concerns associated with magnetic fields.
Land Uses	• Existing and proposed land uses (e.g., residences, schools, airports) that have been identified along the Project route are described in Section 3.9 (Land Use). • Recreational resources along the Project route are discussed in Section 3.15 (Wilderness and Recreation). • Impacts to farmland and agricultural operations are discussed in Section 3.2 (Agricultural Resources).
Local Economy	• Section 3.12 (Socioeconomics) addresses the existing conditions and expected effects on the local economy through discussions of Population and Housing, Local Business Revenue, and Public Revenue in the Project area.
Native American Sacred Sites	• Section 3.5 (Cultural Resources) includes a discussion of traditional cultural properties in the Project area, and describes the Project's consultation process with Native American Tribes.
Open Space and Wilderness Areas	• Section 3.15 (Wilderness and Recreation) provides itemized lists of the open space and designated Wilderness Areas along the Project route. • Section 3.15.2 (Affected Environment) provides descriptions of existing environment including open space and Wilderness Areas, and Sections 3.15.6 through 3.15.10 provides descriptions of how such resources would be affected by the proposed Project and alternatives.
Property Value	• Section 3.12 (Socioeconomics) includes a discussion of private property values and how they could potentially be affected by the Project or an alternative.
Public Recreation	• Public recreation opportunities and resources are discussed in Section 3.15 (Wilderness and Recreation), which provides itemized lists of recreational resources located along the Project route. • Section 3.15.2 (Affected Environment) provides descriptions of existing recreational resources and opportunities, and Sections 3.15.6 through 3.15.10 provide descriptions of how such resources and opportunities would be affected by the proposed Project and alternatives.
Public Safety	• Police services and healthcare facilities in the Project Area are discussed in Section 3.11 (Public Services and Utilities). • Potential health and safety issues related to environmental contamination are discussed in Section 3.6 (Environmental Contamination and Hazards). • Public safety issues related to wildfire risk are discussed in Section 3.16 (Wildfire Prevention and Suppression).
Quality of Life	• Section 3.12 (Socioeconomics) presents a discussion of Quality of Life, including factors that are considered to contribute to Quality of Life and how such factors could potentially be affected by the proposed Project or an alternative.
Seismic Hazards	• Section 3.7 (Geology, Soils, and Paleontology) describes the fault systems and seismicity of the Project area, and discusses Project impacts associated with seismic hazards.
Traffic	• Section 3.13 (Traffic and Transportation) lists the major roads and transportation services that would be crossed by the Project, and discusses increased congestion and other transportation concerns resulting from Project construction, operation, and maintenance. This section also discusses Project effects on public and private airports, air traffic, and military aviation.
Visual Resources	• Section 3.14 (Visual Resources) analyzes the visual quality impacts along the Project route. • Visual simulations of the proposed Project and alternatives at Key Observation Points (KOPs) are available in Maps and Figures Volume (under separate cover).
Streams and Rivers	• Section 3.8 (Hydrology and Water Quality) discusses the existing hydrological systems and resources in the Project Area, as well as the potential effects of the proposed Project or an alternative on these resources. • Section 3.4 (Biological Resources) addresses potential impacts to hydrological resources in terms of natural habitat quality.
Wildfire	• Section 3.16 (Wildfire Prevention and Suppression) describes the existing environmental conditions of the fire and fuels management study area, and analyzes Project impacts related to wildfire risk and management.