

COM/MP6/jt2

Date of Issuance 12/21/2016

Decision 16-12-064 December 15, 2016

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of San Diego Gas & Electric Company (U902E) for a Certificate of Public Convenience and Necessity for the South Orange County Reliability Enhancement Project.

Application 12-05-020
(Filed May 18, 2012)

**DECISION GRANTING CERTIFICATE OF PUBLIC CONVENIENCE AND
NECESSITY TO SAN DIEGO GAS & ELECTRIC COMPANY TO IMPROVE
RELIABILITY IN ITS SOUTH ORANGE COUNTY TERRITORY**

Table of Contents

<u>Title</u>	<u>Page</u>
DECISION GRANTING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO SAN DIEGO GAS & ELECTRIC COMPANY TO IMPROVE RELIABILITY IN ITS SOUTH ORANGE COUNTY TERRITORY	1
Summary	2
1. Procedural Background	2
2. Project Need	6
3. Proposed Project Description and Environmental Impacts	8
4. Project Alternatives	10
4.1. Alternative A - No Project.....	11
4.2. Alternative B1 - Reconductor Laguna Niguel-Talega 138-kV Line, Alternative B2 - Use of Existing Transmission Lines (Additional Talega-Capistrano 138-kV Line), and Alternative B3 - Phased Construction of Alternatives B1 and B2	12
4.3. Alternative B4 - Rebuild South Orange County 138-kV System.....	14
4.4. Alternative C1 - SCE 230-kV Loop-in to Capistrano Substation.....	15
4.5. Alternative C2 - SCE 230-kV Loop-in to Capistrano Substation Routing Alternative	16
4.6. Alternative D - SCE 230-kV Loop-in to Reduced Footprint Substation at Landfill	17
4.7. Alternative E - New 230-kV Talega-Capistrano Line Operated at 138-kV	18
4.8. Alternative F - 230-kV Rancho Mission Viejo Substation.....	19
4.9. Alternative G - New 138-kV San Luis Rey-San Mateo Line and San Luis Rey Substation Expansion	20
4.10. Alternative J - SCE 230-kV Loop to Trabuco Substation	21
5. Environmentally Superior Alternative.....	22
6. Certification of the EIR.....	24
7. Infeasibility of Environmentally Superior Alternative	26
8. Overriding Considerations	29
9. Electric and Magnetic Field.....	31
10. Design Conformance with Safety Regulations and Standards.....	32
11. Maximum Cost Cap	32
12. Comments on Proposed and Alternate Decisions	34

Table of Contents (cont.)

Title	Page
13. Assignment of Proceeding	34
Findings of Fact.....	34
Conclusions of Law	36
ORDER	37

Attachment 1 - CEQA Findings and Mitigation Monitoring and Reporting Plan

DECISION GRANTING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO SAN DIEGO GAS & ELECTRIC COMPANY TO IMPROVE RELIABILITY IN ITS SOUTH ORANGE COUNTY TERRITORY

Summary

This decision grants San Diego Gas & Electric Company a certificate of public convenience and necessity for the South Orange County Reliability Enhancement Project and subject to the mitigation measures identified in the Mitigation Monitoring and Reporting Plan. As the lead agency for environmental review, we find and certify that the Environmental Impact Report prepared for this project meets the requirements of the California Environmental Quality Act and that the ability of the adopted project to reduce the risk of instances that could result in the loss of power to customers served by the South Orange County 138-kV System through the 10-year planning horizon, replace inadequate equipment at Capistrano Substation, and redistribute power flow of the applicant's South Orange County 138-kV System such that operational flexibility is increased are overriding considerations that outweigh its significant and unavoidable impacts on air quality and cultural resources.

The proceeding is closed.

1. Procedural Background

By this application, San Diego Gas & Electric Company (SDG&E) seeks a certificate of public convenience and necessity (CPCN) to construct the South Orange County Reliability Enhancement Project (SOCRE). The proposed project would rebuild and upgrade the existing aged 138/12-kV Capistrano Substation with a new 230/138/12-kV substation and replace an existing 138-kV transmission line (TL13835) with a new 230-kV double circuit extension between SDG&E's Capistrano and Talega Substations. By adding a new 230-kV double

circuit extension, the SOCRE Project will bring a new 230-kV transmission source into South Orange County for increased capacity and reliability. Protests were filed by the Office of Ratepayer Advocates, the City of San Juan Capistrano (SJC), and Forest Residents Opposing New Transmission Lines (FRONTLINES).

Pursuant to Public Utilities Code (Pub. Util. Code) Section 1001 *et seq.*, SDG&E may not proceed with its proposed project absent certification by the California Public Utilities Commission (Commission) that the present or future public convenience and necessity require it, and such certification shall specify the maximum prudent and reasonable cost of the approved project. In addition, pursuant to General Order (GO) 131-D, SDG&E may not proceed with its proposed project absent the Commission's determination that the project complies with the California Environmental Quality Act (CEQA)¹ and with the Commission's policies requiring the use of low-cost and no-cost measures to mitigate electric and magnetic field effects (EMF).

CEQA requires the lead agency (the Commission in this case) to conduct a review to identify the environmental impacts of the project, and ways to avoid or reduce environmental damage, for consideration in the determination of whether to approve the project, a project alternative, or no project. If (as it was the case here) the initial study determines that the proposed project will have a significant environmental impact, then the lead agency shall prepare an environmental impact report (EIR) that identifies the environmental impacts of the proposed project and alternatives, designs a recommended mitigation program to reduce any potentially significant impacts, and identifies, from an environmental

¹ CEQA is codified at Public Resources Code § 21000, *et seq.*

perspective, the preferred project alternative. If the agency approves the project, it must require the environmentally superior alternative and identified mitigation measures, unless they are found to be infeasible. The lead agency may not approve a project unless it determines that there are overriding considerations that merit project approval despite its unavoidable environmental impacts.

After conducting a prehearing conference on November 19, 2014, the assigned Commissioner issued a scoping memo and ruling on February 23, 2015, determining the issues to be resolved as follows, and setting the schedule for the proceeding:

1. Is there a need for the SOCRE Project? This issue is limited to whether there is a public convenience and necessity for the benefits that the SOCRE Project might offer, but not whether this particular project is needed to achieve those benefits. This issue encompasses, but is not limited to, the following considerations:
 - a. Is there a genuine risk of uncontrolled outages for the entire South Orange County load, and if so, is the SOCRE Project necessary to reduce this risk in an appreciable way or are there alternative ways to reduce this risk?
 - b. Reliability: Is there a genuine risk of a controlled interruption of a portion of the South Orange County load, as SDG&E asserts, and if so, is the SOCRE Project necessary to reduce this risk in an appreciable way or are there alternative ways to reduce this risk?
 - c. Is the SOCRE Project necessary to comply with mandatory North American Electric Reliability Criteria (NERC), Western Electricity Coordinating Council (WECC), and the California Independent System Operators (CAISO) transmission and operations standards or are there other ways to comply with the standards above?
 - d. What is the projected load growth over the next 10 years in the SOCRE Project area?

- e. Is the SOCRE Project necessary to accommodate the projected load growth in the Project area over the next ten years, or are there alternative ways to accommodate this load growth?
2. What are the significant adverse environmental impacts of the SOCRE Project?
3. Are there potentially feasible mitigation measures or SOCRE Project alternatives that will avoid or lessen the significant adverse environmental impacts?
4. As between the SOCRE Project and the SOCRE Project alternatives, which is environmentally superior?
5. Are the mitigation measures or SOCRE Project alternatives infeasible?
6. To the extent that the SOCRE Project and/or alternatives result in significant and unavoidable adverse environmental impacts, are there overriding considerations that nevertheless merit Commission approval of the SOCRE Project or alternative?
7. Was the Environmental Impact Report (EIR) completed in compliance with CEQA, did the Commission review and consider the EIR prior to approving the SOCRE Project or an alternative, and does the EIR reflect our independent judgment?
8. Is the SOCRE Project and/or alternative designed in compliance with the Commission's policies governing the mitigation of EMF effects using low-cost and no-cost measures?
9. What is the maximum cost of the SOCRE Project, if approved?
10. Does the SOCRE Project design comport with Commission rules and regulations and other applicable standards governing safe and reliable operations?

Evidentiary hearings were held on November 9, 10, 12, 13, 18, 19, and 20, 2015 and December 2, and 3, 2015. The parties filed opening briefs on January 11, 2016, and reply briefs on February 1, 2016, upon which the matter was submitted.

The Commission's Energy Division issued the draft EIR on February 23, 2015, the draft EIR was recirculated on August 10, 2015, and the final EIR (FEIR) was issued on April 25, 2016.

2. Project Need

Pub. Util. Code § 1001 conditions a utility's authority to construct or extend its line, plant or system on it having first obtained from the Commission a certificate that the present or future public convenience and necessity require or will require such construction.²

SDG&E, CAISO support, asserts that the proposed project is necessary to meet mandatory NERC, WECC, and CAISO reliability standards to avoid service interruptions to South Orange County. SDG&E identifies several areas of concern that it believes must be resolved in order for SDG&E to meet its obligation to serve and maintain reliable customer service in the SDG&E service area.

SDG&E explains that its proposed project will result in substantial electric service and reliability benefits including increased electric network reliability and the reduction of risk of a potential system wide outage affecting all of SDG&E's customers and substations in the South Orange County (SOC) area. There was

² § 1002(a) requires the Commission to consider, as a basis for granting a CPCN, community values, recreational and park areas, historical and aesthetic values, and influence on the environment. We consider the proposed project's impact on recreational and park areas, historical and aesthetic values, and the environment within the scope of issue numbers 2 ("What are the significant adverse environmental impacts of the SOCRE Project?"), 3 ("Are there potentially feasible mitigation measures or SOCRE Project alternatives that will avoid or lessen the significant adverse environmental impacts?"), and 4 ("As between the SOCRE Project and the SOCRE Project alternatives, which is environmentally superior?"), and balance such impacts against the proposed project's benefits in Part 8, below. We consider the proposed project's impact on community values, if any, in the context of issue number 5 ("Are the mitigation measures or SOCRE Project alternatives infeasible?") in Part 7, below. (See CEQA Guideline § 15091(a), "No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects [...]. The possible findings are: [...] (c) Specific legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the EIR.")

significant debate over the course of the proceeding about whether the project is needed based on projected load growth for SOC. It is accepted practice to utilize load forecasts prepared by the California Energy Commission as the basis of demand analysis. With the time that has elapsed since the genesis of this proceeding and its completion, the record is clear that SDG&E's projected load growth in SOC that may have initially driven this project in 2012 has not materialized.³ Therefore, we find that no project is necessary to accommodate the projected load growth over the ten year forecast period (Scoping Memo Issue 1.e.). We do not reach the question of the specific ten-year projected load growth (Scoping Issue 1.d.) because we determine that there is a need for a project because SDG&E must meet NERC, WECC, and CAISO standards which will not be met by the No Project Alternative,⁴ and therefore a public convenience and necessity for actions that will address these requirements exists (Scoping Issue 1.c.). In Section 7 (Infeasibility), we address arguments about whether the proposed project or alternatives best meet these reliability requirements.

In addition to the suggested electric service benefits, SDG&E asserts that its project will increase fire safety within fire prone areas and reduce the number of overhead electric facilities within specific locations along the project route. SDG&E further notes that its project will take place almost entirely within the footprint of existing facilities and will not introduce electric facilities uses where none currently exist. In particular, recreational and park areas within its project site already include extensive overhead electric transmission and distribution

³ SJC Opening Brief at 6-7 citing Exhibit CAISO-501 at 3.

⁴ See Section 5 (Environmentally Superior Alternative).

facilities. Since these existing facilities will be replaced with new facilities, the proposed project will not affect the use of the recreational/park areas.

3. Proposed Project Description and Environmental Impacts

The proposed project involves the following main components:⁵

1. Within SDG&E's existing property, build a new 230-kV partially enclosed gas insulated substation at the existing 138/12-kV Capistrano Substation site;⁶
2. Within SDG&E's existing property, relocate, rebuild and expand the existing 138-kV facility with a new partially enclosed gas insulated substation;
3. Relocate, rebuild and expand existing 12-kV facilities within SDG&E's existing Capistrano Substation property;
4. Replace an existing 138-kV transmission line (TL13835) with a new 230-kV double-circuit extension between SDG&E's Capistrano and Talega Substations, described as follows:
 - Within SDG&E's existing Rights of Way (ROW) build approximately 7.5 miles of new overhead double-circuit 230-kV transmission lines;
 - Acquire new ROW for approximately 0.25 mile of new overhead 230-kV transmission line adjacent to SDG&E's Talega Substation;
 - Within SDG&E's existing Vista Montana street easement position, replace 0.36 mile of existing 138-kV underground transmission system with one new 230-kV underground transmission line; and

⁵ SDG&E Application at 4-5.

⁶ The FEIR refers to the newly built substation as the San Juan Capistrano Substation, whereas the existing substation is referred to as the Capistrano Substation. We utilize the same nomenclature.

- Install 0.36 mile in franchise position within Vista Montana Street one 230-kV underground transmission line.
5. Realign existing 69-kV and 138-kV transmission lines near the Talega Substation;
 6. Relocate the three existing 138-kV transmission lines from the Capistrano Substation into the new San Juan Capistrano Substation. Loop-in the two 138-kV transmission lines that currently bypass the existing substation into the new San Juan Capistrano Substation. Underground all of the westbound 138-kV transmission line getaways;
 7. Install approximately 81 new steel transmission line poles (49 - 230-kV poles, 23 - 138-kV poles, and 9 - 69-kV poles);
 8. Remove approximately 86 wood structures/poles, 12 steel poles, and 5 steel lattice towers;
 9. Reconfigure the Talega Substation to accommodate the new TL13835 connection; and
 10. Undertake other activities required to implement the Proposed Project, including upgrading the communications, controls and relays for corresponding facilities, as required.

The proposed project would have significant and unavoidable impacts on air quality and cultural resources. The proposed project would also have significant impact on the following resources: Aesthetics; Biological Resources; Geology, Soils, and Mineral Resources; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Noise; and Transportation and Traffic; however, implementation of mitigation measures would reduce these impacts to less than significant.

The proposed project spans two air districts, the South Coast Air Quality Management District (SCAQMD) and the San Diego Air Pollution Control District. Emissions from construction activities generated by the proposed project are anticipated to cause localized temporary increases in ambient air pollutant

concentrations for which the SCAQMD project region is in nonattainment. Even after mitigation, construction would result in a significant, but temporary, impact on the ambient air quality with respect to reactive organic gases (ROG), particulate matter (PM) 10, and PM2.5 emissions.

The proposed project would demolish a former utility structure within the San Juan Capistrano Substation footprint. The former utility structure, as well as the surrounding property, may be determined eligible for listing on the National Register of Historic Places (NRHP), although at this time it has not been so designated. Therefore, the FEIR finds the proposed project would have significant impacts on a historic cultural resource.

The proposed project would not have any other significant impacts that cannot be mitigated to a less-than-significant level with the mitigation measures identified in the Mitigation Monitoring and Reporting Plan (MMRP).

4. Project Alternatives

Pursuant to CEQA Guidelines § 15126.6(a), an EIR must consider a reasonable range of alternatives to the project that would feasibly attain most of the basic project objectives while avoiding or substantially lessening any significant effects of the project. An EIR must also evaluate the environmental impacts of a “no project” alternative. (CEQA Guidelines § 15126(e).)

The EIR identifies the following project objectives: (1) Reduce the risk of instances that could result in the loss of power to customers served by the South Orange County 138-kV System through the 10-year planning horizon; (2) Replace inadequate equipment at Capistrano Substation; and (3) Redistribute power flow of the applicant’s South Orange County 138-kV System such that operational flexibility is increased. During the screening process two potential alternatives were eliminated for not meeting most or all of the project objectives,

not reducing or avoiding one or more of the proposed project's significant effects (or if it did, other effects were significantly increased), or not potentially feasible. The EIR evaluated the following 12 project alternatives, including reduced scope, alternative substation locations and transmission routes, and the No Project alternative:

- Alternative A – No Project.
- Alternative B1 – Reconductor Laguna Niguel–Talega 138-kV Line
- Alternative B2 – Use of Existing Transmission Lines (Additional Talega–Capistrano 138-kV Line).
- Alternative B3 – Phased Construction of Alternatives B1 and B2.
- Alternative B4 – Rebuild South Orange County 138-kV System.
- Alternative C1 – SCE 230-kV Loop-in to Capistrano Substation.
- Alternative C2 – SCE 230-kV Loop-in to Capistrano Substation Routing.
- Alternative D – SCE 230-kV Loop In to Reduced-Footprint Substation at Landfill.
- Alternative E – New 230-kV Talega–Capistrano Line Operated at 138-kV.
- Alternative F – 23-kV Rancho Mission Viejo Substation.
- Alternative G – New 138-kV San Luis Rey–San Mateo Line and San Luis Rey Substation Expansion.
- Alternative J – SCE 230-kV Loop to Trabuco Substation.

4.1. Alternative A – No Project

Under the No Project Alternative (Alternative A), it is assumed that none of the components of the proposed project would be constructed. All of the significant impacts from construction and operation of the proposed project would be avoided. It is anticipated that minor maintenance work would occur as

needed to repair or replace failed or inadequate substation equipment and transmission line facilities.⁷ Such maintenance activities are not expected to cause a significant impact as they would be constructed without obtaining a CPCN or Permit to Construct from the CPUC pursuant to General Order 131-D and CEQA 15 Guidelines Section 15260 et seq. and 15300 et seq. (statutory and categorical exemptions).⁸ The No Project Alternative would be environmentally superior in comparison to the proposed project. Significant and unavoidable impacts of the proposed project on air quality and cultural resources would be avoided.

4.2. Alternative B1 – Reconductor Laguna Niguel-Talega 138-kV Line, Alternative B2 – Use of Existing Transmission Lines (Additional Talega-Capistrano 138-kV Line), and Alternative B3 – Phased Construction of Alternatives B1 and B2

Under Alternative B1, a new double-circuit 230-kV line would not be installed and the San Juan Capistrano Substation would not be constructed. The use of high-capacity conductor would reduce the number of support structures that would be required to be replaced for 138-kV line reconductoring. The EIR analysis assumed that all of the existing 138-kV structures would be replaced along the section of TL13835 between Capistrano Substation and Talega Substation to allow for reconductoring (approximately 45 transmission line poles). No new distribution line structures would be installed under

⁷ For example, the applicant is expected to replace 138-kV transformers and update protection equipment at Capistrano Substation and Trabuco Substation in 2015. FEIR at 3-4.

⁸ FEIR at 5-5.

Alternative B1.⁹ The transmission structures installed under Alternative B1 would be smaller than those installed for the proposed project. They would be designed to support a single circuit of a smaller, 138-kV conductor instead of two circuits of a larger 230-kV conductor. In addition, fewer structures would be removed under Alternative B1 than the proposed project.¹⁰

Under Alternative B2, the proposed San Juan Capistrano Substation would not be constructed, and it is assumed that the same number of transmission structures that would be installed for Alternatives B1 would be installed for Alternative B2. Under Alternative B2, however, 38 distribution line poles would be installed, and distribution line poles would be removed as proposed for the relocation of 12-kV Circuit 315. This distribution line pole work would not be required under Alternative B1. Accounting for the reduced number of transmission line poles to be installed and removed and assuming that the existing Capistrano Substation footprint would remain unchanged, the construction of Alternative B2 would result in approximately 21.5 acres of temporary land disturbance, which would be approximately 28.7 acres fewer than for construction of the proposed project.¹¹

Because Alternative B1 and B2 may both be constructed under Alternative B3, it is assumed that the same number of transmission and distribution line poles may be installed as for the proposed project along proposed transmission line Segments 1b and 3. Alternative B3 would result in approximately 6.4 fewer acres

⁹ Under the proposed project, approximately 82 transmission line poles and 10 distribution line poles would be installed.

¹⁰ FEIR at 5-6.

¹¹ FEIR at 5-8 and 5-9.

of land disturbance than the proposed project because Capistrano Substation would not be expanded and trenching would not be required along proposed transmission line Segment 2 (approximately 1.1 acres of disturbance). In addition, no work would be required along proposed transmission line Segment 1a and at Talega Substation. Less work would be required within the Talega Hub/Corridor because the existing lines would not need to be relocated to allow for construction of a new 230-kV line.¹²

Alternatives B1, B2, and B3 would result in fewer impacts on air quality than the proposed project; however, this impact would remain significant under Alternatives B1, B2, and B3. Alternatives B1, B2, and B3 would reduce the proposed project's cultural resources and cumulative impacts to less than significant. These alternatives would not increase the capacity of the South Orange County 138-kV system as substantially as the proposed project because a new 230-kV source to South Orange County would not be constructed.¹³

4.3. Alternative B4 – Rebuild South Orange County 138-kV System

Under this alternative, substantial construction would occur to reconductor, install new structures, and install new underground conduit along the segments of six 138-kV lines (TL13816, TL13833, TL13834, TL13835, TL13836, and TL13846), see Section 3.2.5, "Alternative B4 – Rebuild South Orange County 138-kV System." New structures and new underground conduit would be installed. In addition, new 138-kV facilities at Capistrano Substation would still

¹² FEIR at 5-11.

¹³ FEIR at 5-8, 5-11, and 5-13.

be constructed as described for the proposed project. The construction area and total area of disturbance would be larger for Alternative B4 than for the proposed project.¹⁴ Alternative B4 would result in impacts on air quality, and cumulative impacts that are greater than the proposed project. This alternative would not increase capacity of the South Orange County 138-kV system as substantially as the proposed project because a new 230-kV source to South Orange County would not be constructed.¹⁵

4.4. Alternative C1 – SCE 230-kV Loop-in to Capistrano Substation

Under this alternative, a new double-circuit 230-kV line segment would not be installed between Talega Substation and a location just south of San Juan Hills High School and the Rancho San Juan residential development. The 230-kV line would be approximately 4 miles shorter than the proposed project.¹⁶

Alternative C1 would result in impacts on air quality that are less than the proposed project; however, this impact would remain significant under Alternative C1. Alternative C1 would have significant impacts on cultural resources and cumulative impacts, similar to the proposed project. This alternative would increase capacity of the South Orange County 138-kV system similar to the proposed project because a new 230-kV source to South Orange County would be constructed.¹⁷

¹⁴ FEIR at 5-13.

¹⁵ FEIR at 5-15.

¹⁶ FEIR at 5-15.

¹⁷ FEIR at 5-17.

4.5. Alternative C2 – SCE 230-kV Loop-in to Capistrano Substation Routing Alternative

Under this alternative, a new double-circuit 230-kV line segment would not be installed between Talega Substation and a location just south of San Juan Creek Road. The 230-kV line would be 4.5 to 5 miles shorter than as proposed.

Approximately 18 transmission structures would be installed along transmission line Segment 1a and a section of Segment 1b. The transmission line would be installed in new underground conduit along San Juan Creek Road. This would equate to approximately 7.39 acres of land disturbance compared to the 33.7 acres that would be disturbed if the proposed transmission lines were installed. More land disturbance would occur for trenching along San Juan Creek Road (approximately 1 mile) than along Vista Montana Road (approximately 0.35 miles). This would equate to approximately 6.1 acres of land disturbance along San Juan Creek Road under Alternative C2 and approximately 1.6 acres of land disturbance along Vista Montana Road under the proposed project. With the additional 4.5 acres of land disturbance for trenching along San Juan Creek Road, Alternative C2 would still result in approximately 21.8 fewer acres of land disturbance compared to the proposed project. In addition, helicopter use would not be required for the construction of Alternative C2.¹⁸

Alternative C2 would result in impacts on air quality that are less than the proposed project; however, these impacts would remain significant under Alternative C2. Alternative C2 would have greater impacts on cultural resources compared to the proposed project. This alternative would have a significant impact on cumulative impacts, similar to the proposed project. This alternative

¹⁸ FEIR at 5-17 and 5-18.

would increase capacity of the South Orange County 138-kV system similar to the proposed project because a new 230-kV source to South Orange County would be constructed.¹⁹

4.6. Alternative D – SCE 230-kV Loop-in to Reduced Footprint Substation at Landfill

Under Alternative D, a new double-circuit 230-kV line segment (less than 0.25 miles long) and a new, single-circuit 138-kV line segment (approximately 0.75 miles long) would be constructed. The combined length of transmission line segments to be constructed under this alternative would be approximately 6.8 miles shorter than as proposed. Approximately 8 transmission structures would be installed along transmission line Segment 3 and approximately 0.25 miles of new ROW within Prima Deshecha Landfill. This would equate to approximately 3.3 acres of land disturbance. In addition, the new 230/138/12-kV substation would likely be smaller than the proposed 230/138/12-kV substation because only one 230/138-kV transformer would be installed instead of two, and only one 138/12-kV transformer would be installed instead of three. Space for a spare 230/138-kV transformer and spare 138/12-kV transformer would still be included as proposed.²⁰

Alternative D would result in less impacts on air quality than the proposed project; however, impacts on air quality would remain significant under Alternative D. Alternative D would have similar significant impacts on cultural resources. Alternative D would reduce the proposed project's transportation and traffic and cumulative impacts to less than significant. This alternative would

¹⁹ FEIR at 5-19 and 5-20.

²⁰ FEIR at 5-20.

have substantially greater impacts on public services. Additionally, the feasibility of SDG&E obtaining the property for this alternative is uncertain as the property is owned and used by the County of Orange for an existing public use. Further, consultation between the applicant and the County of Orange would have to occur to determine the feasibility of this alternative. This alternative would increase capacity of the South Orange County 138-kV system similar to the proposed project because a new 230-kV source to South Orange County would be constructed.²¹

4.7. Alternative E – New 230-kV Talega-Capistrano Line Operated at 138-kV

Under this alternative, San Juan Capistrano Substation would not be constructed, and a new double-circuit 230-kV line segment would not be installed between Capistrano Substation and San Juan Hills High School as proposed. The proposed double-circuit 230-kV line would be constructed between Talega Substation and the San Juan Hills High School and Rancho San Juan residential development area but would be operated at 138-kV rather than 230-kV. The new 230-kV line would be approximately 3 miles shorter than the proposed 230-kV line. The proposed distribution line work would not be required. This would equate to approximately 23.4 acres of land disturbance.²²

Alternative E would result in fewer impacts on air quality than the proposed project; however, these impacts would remain significant under Alternative E. Alternative E would reduce the proposed project's cultural resources and cumulative impacts to less than significant. This alternative would

²¹ FEIR at 5-23 and 5-24.

²² FEIR at 5-24.

not increase capacity of the South Orange County 138-kV system as substantially as the proposed project because a new 230-kV source to South Orange County would not be constructed.

4.8. Alternative F – 230-kV Rancho Mission Viejo Substation

Under Alternative F, a new double-circuit 230-kV line that follows the route of TL13831 would be constructed that is approximately 1 mile shorter than the 230-kV route for the proposed route. New ROW would be required, however, to widen the existing 138-kV ROW between Talega and Rancho Mission Viejo substations (approximately 6.5 miles long and 20 feet wide), which would result in more land disturbance than the propose route within existing ROW. It is assumed that additional land disturbance would be required for the installation of new 138-kV facilities and 138-kV reconductoring to make use of the additional power that would be available from an upgraded 230/138/12-kV Rancho Mission Viejo Substation. In addition, the expansion of Rancho Mission Viejo Substation would require a similar amount of land disturbance compared to the construction of San Juan Capistrano Substation.²³

Alternative F would result in impacts on air quality that are greater than the proposed project. Impacts on biological resources and land use would be similar to the proposed project. Alternative F would reduce the proposed project's cultural resources and cumulative impacts to less than significant. This alternative would not increase capacity of the South Orange County 138-kV

²³ FEIR at 5-26.

system as substantially as the proposed project because a new 230-kV source to South Orange County would not be constructed.²⁴

4.9. Alternative G – New 138-kV San Luis Rey-San Mateo Line and San Luis Rey Substation Expansion

Under Alternative G, SDG&E would expand Capistrano Substation as proposed but would not install the proposed 230-kV components. A similar amount of land disturbance would still occur at the proposed substation site. A new 138-kV line would be constructed between San Luis Rey Substation and San Mateo Substation that would be approximately 12 miles longer than the proposed line between Talega Substation and Capistrano Substation. Instead of the proposed 82 transmission line structures along a 7.8-mile-long route, more than 250 new structures would be installed. This would equate to approximately 102.7 acres of land disturbance.²⁵

Alternative G would result in impacts on air quality that are greater than the proposed project. Impacts on biological resources, cultural resources, and land use and planning would be similar to the proposed project. This alternative would not increase capacity of the South Orange County 138-kV system as substantially as the proposed project because a new 230-kV source to South Orange County would not be constructed.²⁶

²⁴ FEIR at 5-28.

²⁵ FEIR at 5-29.

²⁶ FEIR at 5-30.

4.10. Alternative J – SCE 230-kV Loop to Trabuco Substation

Under this alternative, the SDG&E's 138/12-kV Trabuco Substation would be expanded to a 230/138/12-kV substation. The substation expansion would use an existing 2-acre AT&T parking lot located adjacent to the north side of the existing Trabuco Substation to accommodate the new 230/138-kV equipment. A new 230-kV source of power would be added to the South Orange County 138-kV system by looping Southern California Edison's (SCE's) San Onofre Nuclear Generating Station (SONGS)-Santiago 230-kV transmission system into the Trabuco Substation. This would be accomplished by constructing a new underground double circuit 230-kV line from the north along Camino Capistrano or from the east several hundred feet north of Crown Valley Parkway. The easterly route would require a crossing of I-5, similar to the proposed project. The new underground 230-kV double circuit transmission line would require new ROW under either routing option. Existing infrastructure in the AT&T parking lot would be removed, and a new pad for the 230/138-kV equipment would be established. New equipment would include support structures for the 230-kV double circuit transmission line, a 230-kV bus, two 230-kV circuit breakers, two 230/138-kV air-insulated transformers (one required and one spare), a 138-kV circuit breaker, and a new 80- x 40-foot control building. New substation componentry would be set back from the perimeter of the parcel by at least 20 feet. A small switchyard would be constructed to loop SCE's Santiago-SONGS 230-kV line into the Trabuco Substation. The existing 138/12-kV substation equipment would not be modified, with the exception of connecting the new 138-kV circuit breaker to the existing 138-kV system. The SDG&E South Orange County 138-kV System would not require any reconductoring under this

alternative. The Capistrano Substation would not be expanded, but equipment at Capistrano Substation 43 found to be inadequate would be replaced. The distribution circuit 315 (12-kV) would not be relocated.²⁷

Alternative J would result in fewer impacts on air quality than the proposed project; however, impacts on air quality would remain significant. Alternative J would reduce impacts on cultural resources to less than significant. This alternative would increase capacity of the South Orange County 138-kV system similar to the proposed project because a new 230-kV source to South Orange County would be constructed.²⁸

5. Environmentally Superior Alternative

The EIR identifies the No Project Alternative (Alternative A) as the environmentally superior alternative for all environmental resources. The FEIR finds the No Project Alternative would be feasible and would meet most of the basic objectives of the proposed project.²⁹ In addition, when the environmentally superior alternative is the No Project Alternative, CEQA requires the identification of an Environmentally Superior Alternative among the other alternatives (CEQA Guidelines Section 15126.6).

The January 2016 revision of the NERC standards and the new language in standard TPL 001 4 limiting load drop under single contingencies to 75 MW suggests that the No Project alternative, which carries the risk of a significant (>75 MW) loss of non-consequential load under a single contingency, does not

²⁷ FEIR at 5-31.

²⁸ FEIR at 5-34.

²⁹ FEIR at 5-34.

appear to satisfy the current NERC reliability standard and therefore we find that the No Project alternative fails to meet the project objectives.

Prior to when TPL 001 4 took effect in January 2016, former footnote B potentially provided an exemption for local area networks. Under the new standard, most single contingency events are now subject to the new footnote 12 which provides:

An objective of the planning process should be to minimize the likelihood and magnitude of non-consequential load loss following planning events. In limited circumstances, non-consequential load loss may be needed throughout the planning horizon to ensure that BES performance requirements are met. However, when Non Consequential Load Loss is utilized under footnote 12 within the near term transmission planning horizon to address BES performance requirements, such interruption is limited to circumstances where the non-consequential load loss meets the conditions shown in Attachment 1. In no case can the planned Non-Consequential load loss under footnote 12 exceed 75 MW for US registered entities.

This new language limits non-consequential load drop under single contingencies to 75 MW. However, FRONTLINES points out that Footnote 12's 75 MW limitation on load shedding only applies to non-consequential load, and that the CAISO's planning standards allow for up to 250 MW of consequential load shedding, or load that is directly connected to a faulted element. Regardless of whether a fault at Talega substation during a maintenance outage would constitute consequential or non-consequential load shed, the South Orange County load is often greater than 250 MW, which would still cause a CAISO planning standard violation should all South Orange County load be dropped as a result of a single contingency during a maintenance outage.

The limitation of load loss to a maximum of 75 MW, or even 250 MW appears to only have a significant impact on project alternatives that risk a

significant loss of load under a single contingency, like the No Project Alternative. Alternatives B1, B2, B3, B4, C1, C2, and D suffer from the same risk as the No Project Alternative and are thus rejected for failure to meet project objectives.

The 2016 NERC standard does not impact the single contingency feasibility of Alternatives F, G, and J, as no single contingency (Category B, P1, P2) overloads/load shedding was found in the reliability studies of those alternatives. No party advocates for selection of Alternate E or G. SJC advocates in favor of Alternate F, but the FEIR finds that Alternate F would result in more environmental impacts than the proposed project.

Alternative J (SCE 230-kV Loop to Trabuco Substation) was found to be the environmentally superior alternative compared to the proposed project and to the other alternatives because Alternative J would substantially reduce air quality emissions when compared to the proposed project's air emissions and would reduce significant impacts on historic cultural resources to less than significant.

6. Certification of the EIR

Pursuant to CEQA Guidelines § 15090(a), prior to approving a project the lead agency shall certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information contained in the EIR prior to approving the project, and that the EIR reflects the lead agency's independent judgment and analysis.

The Commission issued and distributed a Notice of Preparation on January 9, 2013, to inform the public and public agencies of its intent to prepare an EIR for the proposed project. The Commission conducted public scoping meetings in San Juan Capistrano and San Clemente, California. During and outside the scoping period, 18 scoping comments were received from federal,

state, and local agencies; 28 scoping comments were received from organizations and groups; and 49 scoping comments were received from individuals.

The Commission issued the draft EIR and distributed a Notice of Availability to the public and public agencies on February 19, 2015, and conducted two public workshops on March 25, 2015. The Commission received 318 comment letters during and outside of the 45-day public comment period (44 from public agencies and tribal governments; 33 from community groups, private companies and private organizations, including three from SDG&E; and 240 from private individuals).

The Commission issued a Recirculated Draft EIR and distributed a Notice of Availability on August 10, 2015. No public workshops were held on the Recirculated Draft EIR. The Commission received 35 comment letters during and outside of the 45-day public comment period (12 from public agencies and tribal governments; six from community groups, private companies and private organizations, including two from SDG&E; and 17 from private individuals). Eleven of the 35 comment letters voiced support for Alternative J.

The FEIR was issued on April 25, 2016. An Errata was released on November 8, 2016, which made minor clarifying changes to the FEIR text and revised Mitigation Measures AES-1, AQ-1, NV-4, and TR-5 in response to two letters from SDG&E to the CPUC Energy Division. SDG&E's letters were sent after publication of the FEIR.

The FEIR documents and responds to all written and oral comments made on the draft EIR and recirculated draft EIR, as required by CEQA. As also required by CEQA, the FEIR examines the environmental impacts of the proposed project and 12 alternatives, including the No Project Alternative; it identifies their significant environmental impacts and the mitigation measures that will avoid or

substantially lessen them, where feasible; and it identifies the environmentally superior alternative pursuant to CEQA.

We have reviewed and considered the information contained in the EIR. We find that substantial evidence supports the EIR's findings and that the findings accurately reflect the independent analysis contained in the Final EIR. We adopt them as Findings of Fact in this decision and incorporate them by reference herein.³⁰ We certify that the EIR was completed in compliance with CEQA, that we have reviewed and considered the information contained in it, and that, with the revisions to the mitigation measures reflected in the MMRP attached to this order, it reflects our independent judgment.

7. Infeasibility of Environmentally Superior Alternative

Where a project would have significant environmental effects, the Commission may not approve it without requiring the mitigation identified to reduce those effects unless the Commission finds that the identified mitigation or project alternative is infeasible for specific economic, legal, social, technological, or other considerations. No party contends that the identified mitigation measures are infeasible, and we have no reason to find otherwise.

However, SDG&E and CAISO contend that the environmentally superior alternative is infeasible and does not meet mandatory NERC, WECC, and CAISO transmission and operations standards, and therefore we discuss the record as it relates to the feasibility of Alternative J to meet the reliability requirements.

Under Alternative J, SDG&E's existing 138/12-kV Trabuco Substation would be expanded to a 230/138/12-kV substation using an existing adjacent two

³⁰ Attachment 1 - CEQA Findings.

acre lot presently owned and used by AT&T. This expanded substation would thus be the second 230-kV source of power to serve SOC by looping SCE's SONGS-Santiago 230-kV transmission system into the Trabuco Substation. Alternative J would require the removal of existing infrastructure on the AT&T parking and maintenance lot and installation of new equipment (a 230-kV double circuit transmission line, a 230-kV bus, two 230-kV circuit breakers, two 230/138-kV air insulated transformers, a 138-kV circuit breaker, and a new 80- x 40-foot control building. Alternative J would also require the installation of a new overhead or underground transmission line segment to interconnect with SCE's transmission system. Under Alternative J, the Capistrano Substation would not be expanded, but it would still require the replacement of outdated equipment.

SDG&E submits that it is not feasible to construct or operate a safe and reliable 230/138/12-kV Trabuco Substation on the space provided for in the FEIR. The FEIR's conceptualization does not, according to SDG&E, contain all necessary equipment, does not meet industry standards, and requires a non-standard design that is inferior in terms of reliability to the proposed project. As SDG&E notes, no parties testified that Alternative J's "design comport[s] with Commission rules and regulations and other applicable standards governing safe and reliable operations." To the contrary, SDG&E, CAISO, ORA, and SJC raise the question of whether the proposed design for Alternative J is adequate for reliability purposes. Some parties have argued that Alternative J should be modified to include a 230-kV Breaker and a Half configuration, and SJC suggests

that two 230/138-kV transformers – not one – is required.³¹ SDG&E also argues that a properly designed and reliable 230/138/12-kV substation cannot physically be accommodated on the space allowed by ORA’s or SJC’s modifications to Alternative J.³² Based on the record evidence, we cannot comfortably approve Alternative J based on the proposed Trabuco Substation design flaws.

Moreover, the “feasibility” of a project or alternative under CEQA depends on whether it can be successfully accomplished within a reasonable time. Alternative J cannot. As CAISO made plain in its 2010-2011 Transmission Planning Process, CAISO found that the timing for the SOCRE project was driven by the need for capital maintenance at the Capistrano Substation, which itself underscored the inadequacy of the existing system to accommodate maintenance or construction-related outages. SDG&E has argued that Alternative J could delay addressing reliability concerns for years while the impacts of an interconnection to SCE’s transmission system are studied.³³

We have reviewed and considered the information contained in the final EIR, as well as parties’ challenges to the adequacy of the final EIR. We find that substantial evidence demonstrates that the environmentally preferred alternative, Alternative J, is infeasible from a technological and temporal perspective.

³¹ SJC Opening Brief at 25.

³² Exh. SDG&E-4 at 57-68.

³³ Exh. SDG&E-2.2 at 100-105.

8. Overriding Considerations

Pursuant to CEQA Guidelines § 15093, the Commission may approve a project that results in significant and unavoidable impacts only upon a finding that there are overriding considerations. § 15093(a) describes the underlying analysis:

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable or adverse environmental effects, the adverse environmental effects may be considered acceptable.

As discussed in Section 2, above, SDG&E's proposed South Orange County Reliability Enhancement Project, will reduce the risk of instances that could result in the loss of power to customers served by the South Orange County 138-kV System through the 10-year planning horizon, replace inadequate equipment at Capistrano Substation, and redistribute power flow of the applicant's South Orange County 138-kV System such that operational flexibility is increased. The estimated economic impact from an extended outage could reach into the hundreds of millions of dollars for a less than 24 hour outage to billions of dollars for more extended outages.³⁴ Although we acknowledge that such an extended outage to the entire SOC area is low, the increasing risk of such an outage, together with the magnitude of the impact of such an outage, make clear that the

³⁴ SDG&E Opening Brief at 14-15.

SOC area is in need of a reliability enhancement project in the ten year planning horizon.

The FEIR finds the proposed project's impacts to air quality cannot be mitigated to less than significant. We do not discount the significant construction related air quality impacts that the FEIR identifies. Exceedances of significance thresholds are particularly concerning in the South Coast Air Quality Management District. At the same time, the risk of violating NERC reliability standards and of both controlled and uncontrolled outages throughout SOC remain and will only increase over time as load continues to grow in the area. As SDG&E's testimony explains, without an adequate reliability enhancement project, a catastrophic loss at the Talega Substation would lead to a widespread long term outage throughout SOC would impact nearly every facet of life, from the customers directly served by the 120,000 SDG&E meters in the area, to public safety services, to the supply of fresh water and the treatment of wastewater.

The FEIR also finds that Alternative J would reduce the impacts to cultural resources over the proposed project. The FEIR identifies one historical site impacted by the proposed project – the former utility structure (historic site 30-179873) at the existing Capistrano Substation. In April 2015, the State Historic Resources Commission recommended this structure as eligible for the National Register of Historic Places (NRHP), and forwarded its recommendation to the Keeper of the NRHP. In September 2015, the Keeper of the NRHP declined to find this structure as NRHP eligible because of an inadequate nomination. Although the Keeper of the NRHP's decision was not on the merits and is not definitive, we can only say that the impacts to the former utility structure – the single cultural resource for which the FEIR found a significant non-mitigable impact – might be significant depending on whether the structure is again

submitted for eligibility. At this point, we are not aware of whether another recommendation for the resource's eligibility has been resubmitted.

The benefits from the project outweigh the unavoidable adverse environmental impacts on air quality and cultural resources.

9. Electric and Magnetic Field

The Commission has examined EMF impacts in several previous proceedings, concluding that the scientific evidence presented in those proceedings was uncertain as to the possible health effects of EMFs.³⁵ Therefore, the Commission has not found it appropriate to adopt any related numerical standards. Because there is no agreement among scientists that exposure to EMF creates any potential health risk, and because CEQA does not define or adopt any standards to address the potential health risk impacts of possible exposure to EMFs, the Commission does not consider magnetic fields in the context of CEQA and the determination of environmental impacts.

However, recognizing that public concern remains, we do require, pursuant to GO 131-D, Section X.A, that all requests for a permit to construct include a description of the measures taken or proposed by the utility to reduce the potential for exposure to EMFs generated by the proposed project. We developed an interim policy that requires utilities, among other things, to identify the no-cost measures undertaken, and the low-cost measures implemented, to reduce the potential EMF impacts. The benchmark established for low-cost measures is 4 percent of the total budgeted project cost that results in an EMF reduction of at least 15 percent (as measured at the edge of the utility ROW).

³⁵ See Decision (D.) 06-01-042 and D.93-11-013.

SDG&E submitted a Magnetic Field Management Plan (MFMP) for the proposed project in Appendix H to its application. The plan provides that SDG&E will adopt the low cost measures of increasing height of structures and increasing trench depth for undergrounded line where possible. The plan considers but rejects locating power lines closer to the center of the utility corridor due to safety and reliability requirements; it rejects reducing conductor spacing because the design uses optimum phase spacing; and it rejects additional undergrounding as exceeding the 4% cost threshold.

SDG&E's MFMP complies with GO 131-D; hence it is reasonable to adopt the Field Management Plan for the SOCRE Project and require SDG&E to comply with it.

10. Design Conformance with Safety Regulations and Standards

The scoping memo identifies, as a stand-alone issue, the question of whether the project comports with Commission rules and regulations and other applicable standards governing safe and reliable operations. SDG&E testifies, and no party contests, that the proposed project comports with transmission planning standards, the design and construction rules set forth in GOs 95 and 128, and SDG&E's more stringent loading condition, clearance, pole composition (steel versus wood), and seismic loading standards. We find that the proposed project design conforms with applicable safety regulations and standards and direct SDG&E to apply these standards to construction of the project.

11. Maximum Cost Cap

Pub. Util. Code § 1005.5(a) requires that, whenever the Commission grants a certificate to construct an addition to an electrical corporation's plan estimated to cost greater than \$50 million, the Commission specify a maximum reasonable

and prudent cost for the facility. SDG&E testifies that the estimated cost of the proposed project is \$381 million,³⁶ and provides the basis for the cost estimate.

We recognize that detailed engineering estimates have not been completed for the SOCRE project, so there is some uncertainty associated with the firmness of the cost cap we adopt today. However, we believe that the cost cap contains sufficient contingency factors in the estimating procedure to make the estimates of a sufficient level of reliability that we can adopt a cost cap. We have relied on SDG&E's construction cost estimates, we have relied on SDG&E's land cost estimates, and we have included significant contingency factors for each of these project cost areas. We have no reason to believe that SDG&E cannot complete its project within the cost cap we adopt today.

We conclude that \$381 million is a reasonable and prudent maximum cost for the facility. If, upon completion of the final, detailed engineering design-based construction estimates for the project selected, SDG&E concludes that the costs will be materially (i.e., one percent or more) lower than the cost cap we adopt, SDG&E shall submit with the estimate an explanation of why we should not revise the cost cap downward to reflect the new estimate. If the final estimate exceeds the cost cap we have adopted, then SDG&E is free to exercise its rights to seek an increase in the cost cap pursuant to Pub. Util. Code § 1005.5(b). However, the cost cap will not automatically adjust upward even if the final, detailed costs exceed the cost cap.

We authorize a total project cost cap of \$381,000,000 for SDG&E to construct the South Orange County Reliability Enhancement Project.

³⁶ SDG&E Rebuttal Testimony at 16.

12. Comments on Proposed and Alternate Decisions

The proposed decision of the ALJ and the alternate decision of President Picker in this matter were mailed to the parties in accordance with § 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. SDG&E, ORA, SJC, FRONTLINES, and CAISO filed comments on the proposed and alternate decisions on October 17, 2016, reply comments were filed by the same parties on October 24, 2016.

The alternate decision has been restructured and augmented to incorporate necessary environmental findings and the adopted MMRP and thus was reissued for comment on November 14, 2016. Comments were filed by SDG&E, ORA, SJC, FRONTLINES, and CAISO on December 5, 2016 and reply comments were filed by SDG&E, ORA, SJC, FRONTLINES, and CAISO on December 12, 2016. Only minor changes to correct typographical errors were made.

13. Assignment of Proceeding

President Michael Picker is the assigned Commissioner and Darwin E. Farrar is the assigned ALJ in this proceeding.

Findings of Fact

1. Demand forecasts do not demonstrate need for a project in South Orange County.
2. Loss of load due to a contingency during a maintenance outage at Talega is a violation of NERC TPL-001-4.
3. NERC reliability standards apply to the Bulk Electric System on a mandatory basis.
4. CAISO has applied the NERC TPL standards to facilities that are under its operational control through its Planning Standards.

5. CAISO Planning Standards impose reliability standards stricter than those mandated by NERC.
6. Alternatives A-D carry the risk of a significant (>75 MW) loss of load under a single contingency.
7. No party supports Alternatives E or G.
8. The environmental impacts of Alternative G exceed the impacts of the proposed project.
9. Alternative J (SCE 230-kV Loop to Trabuco Substation) is the environmentally superior alternative due to its reduced impacts on air quality and no impact on cultural resources as compared to the proposed project.
10. The proposed project would have significant and unavoidable impacts on air quality during construction, and on cultural resources.
11. The proposed project would not have any other significant impacts that cannot be mitigated to a less-than-significant level with the mitigation measures identified in the MMRP.
12. The proposed project will reduce the risk of instances that could result in the loss of power to customers served by the South Orange County 138-kV System through the 10-year planning horizon, replace inadequate equipment at Capistrano Substation, and redistribute power flow of the applicant's South Orange County 138-kV System such that operational flexibility is increased.
13. There is a need for the proposed project because SDG&E must meet NERC, WECC and CAISO standards that would not be met by the no project alternative.
14. Alternative J is not feasible from a technological or temporal perspective.
15. The Commission has reviewed and considered the EIR.

16. A set of CEQA Findings of Fact are attached as Attachment 1, and accurately reflect the independent analysis contained in the Final EIR and are supported by substantial evidence in the administrative record.

17. The proposed project design conforms with applicable safety regulations and standards.

Conclusions of Law

1. The proposed project serves a public convenience and necessity.

2. The EIR was completed in compliance with CEQA, and it reflects the Commission's independent judgment and analysis on all material matters.

3. The ability of the proposed project to reduce the risk of instances that could result in the loss of power to customers served by the South Orange County 138-kV System through the 10-year planning horizon, replace inadequate equipment at Capistrano Substation, and redistribute power flow of the applicant's South Orange County 138-kV System such that operational flexibility is increased are overriding considerations that outweigh its significant and unavoidable impacts on air quality and cultural resources.

4. SDG&E's MFMP is consistent with the Commission's EMF policy for implementing no-cost and low-cost measures to reduce potential EMF impacts.

5. The reasonable and prudent maximum cost cap for the SOCRE Project is \$381,000,000.

6. It is infeasible from a technological and temporal perspective to implement the environmentally superior Alternative J.

7. The CEQA Findings of Fact in Attachment 1 should be incorporated into this decision.

8. Any pending motions should be deemed denied.

O R D E R

IT IS ORDERED that:

1. San Diego Gas & Electric Company (SDG&E) is granted a certificate of public convenience and necessity to construct the South Orange County Reliability Enhancement Project and subject to SDG&E obtaining all permits and other approvals required and complying with the Mitigation Monitoring and Reporting Plan attached to this order.

2. The Commission's Energy Division may approve requests by San Diego Gas & Electric Company (SDG&E) for minor project refinements that may be necessary due to final engineering of the environmentally superior project, so long as such minor project refinements are located within the geographic boundary of the study area of the Final Environmental Impact Report (FEIR) and do not, without mitigation, result in a new significant impact or a substantial increase in the severity of a previously identified significant impact based on the criteria used in the FEIR; conflict with any mitigation measure or applicable law or policy; or trigger an additional permit requirement. SDG&E shall seek any other project refinements by a petition to modify today's decision.

3. The Final Environmental Impact Report is certified.

4. The maximum cost cap for the South Orange County Reliability Enhancement Project is \$381,000,000.

5. All pending motions are deemed denied.
6. Application 12-05-020 is closed.

This order is effective today.

Dated December 15, 2016, at San Francisco, California.

MICHAEL PICKER

President

MICHEL PETER FLORIO

CATHERINE J.K. SANDOVAL

CARLA J. PETERMAN

LIANE M. RANDOLPH

Commissioners

**Attachment to the Alternate Proposed Decision Granting
Certificate of Public Convenience and Necessity for the
South Orange County Reliability Enhancement Project:
CEQA Findings and Mitigation Monitoring and Reporting
Plan**

Table of Contents

Attachment to the Alternative Proposed Decision	1
1 Environmental Impacts and Findings.....	1
1.1. Findings on Significant Environmental Impacts That Cannot Be Avoided or Reduced to a Less than Significant Level.....	2
1.1.1. Air Quality	2
1.1.1.1 Impact AQ-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation.....	2
1.1.1.2 Impact AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment.	3
1.1.1.3 Impact AQ-4: Exposure of sensitive receptors to substantial pollutant concentrations.	3
1.1.2 Cultural Resources	4
1.1.2.1 Impact CUL-1: Substantial adverse change in the significance of an historical resource.	4
1.1.3 Cumulative.....	6
1.1.3.1 Cumulative Air Quality Impact.....	6
1.2 Findings on Significant Environmental Impacts That Can Be Reduced to a Less than Significant Level.....	6
1.2.1 Aesthetics.....	6
1.2.1.1 Impact AE-1: Result in a substantial adverse effect on a scenic vista.	6
1.2.1.2 Impact AE-3: Substantially degrade the existing visual character or quality of the site and its surroundings.....	7
1.2.1.3 Impact AE-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.	8
1.2.2 Biological Resources	8
1.2.2.1 Impact BR-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS).	8
1.2.2.2 Impact BR-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.	10
1.2.2.3 Impact BR-3: Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	10
1.2.2.4 Impact BR-4: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or	

	with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.....	11
1.2.2.5	Impact BR-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.....	11
1.2.2.6	Impact BR-6: Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.	12
1.2.3	Cultural Resources	12
1.2.3.1	Impact CUL-2: Substantial adverse change in the significance of an archaeological resource.....	12
1.2.3.2	Impact CUL-3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.....	13
1.2.3.4	Impact CUL-4: Disturb any human remains, including those interred outside of formal cemeteries.....	14
1.2.4	Geology, Soils, and Mineral Resources	15
1.2.4.1	Impact GE-2: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.....	15
1.2.4.2	Impact GE-3: Expose people or structure to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.....	15
1.2.4.3	Impact GE-4: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.....	16
1.2.4.4	Impact GE-6: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	16
1.2.4.5	Impact GE-7: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.....	17
1.2.5	Greenhouse Gases.....	17
1.2.5.1	Impact GG-2: Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs.	17
1.2.6	Hazards and Hazardous Materials	18
1.2.6.1	Impact HZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.....	18
1.2.6.2	Impact HZ-2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.....	18
1.2.6.3	Impact HZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.....	19
1.2.6.4	Impact HZ-4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to	

	Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.	20
1.2.6.5	Impact HZ-5: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	20
1.2.6.6	Impact HZ-6: Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	21
1.2.7.	Hydrology and Water Quality	21
1.2.7.1	Impact WQ-6: Substantially degrade water quality.	21
1.2.8	Land Use and Planning	22
1.2.8.1	Impact LU-2: Conflict with applicable plans, policies, or regulations.	22
1.2.8.2	Impact LU-3: Conflict with any applicable HCP or NCCP.	22
1.2.9	Noise and Vibration	23
1.2.9.1	Impact NV-1: Noise levels in excess of standards established in the local general plan or noise ordinance.	23
1.2.9.2	Impact NV-2: Excessive groundborne vibration or groundborne noise levels.	23
1.2.9.3	Impact NV-3: Permanent increases in ambient noise levels in the project vicinity.	24
1.2.9.4	Impact NV-4: Substantial temporary or periodic increase in ambient noise levels in the project vicinity.	24
1.2.10	Public Services and Utilities	25
1.2.10.1	Impact PS-1: Results in substantial, adverse, physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.	25
1.2.10.2	Impact PS-3: Insufficient water supplies available to serve the project from existing entitlements and resources or new or expanded entitlements required.	25
1.2.11	Recreation	26
1.2.11.1	Impact RE-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	26
1.2.12	Transportation and Traffic	26
1.2.12.1	Impact TT-1: Conflict with an applicable plan, ordinance, or policy establishing measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components.	26
1.2.12.2	Impact TT-2: Conflict with an applicable congestion management program.	27

1.2.12.3 Impact TT-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. 27

1.2.12.4 Impact TT-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). 28

1.2.12.5 Impact TT-5: Result in inadequate emergency access. 28

1.2.12.6 Impact TT-6: Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities..... 29

1.3 Custodian of Records 29

2 Mitigation Monitoring and Reporting Program 29

Attachment to the Alternative Proposed Decision

The California Public Utilities Commission (CPUC or Commission) published the Final Environmental Impact Report (FEIR) for the South Orange County Reliability Enhancement (SOCRE) Project (proposed project or project) on April 25, 2016. The FEIR will be used to support the CPUC's decision with respect to San Diego Gas & Electric Company's (SDG&E's) application for a Certificate of Public Convenience and Necessity (CPCN) to construct the proposed project.

1 Environmental Impacts and Findings

Pursuant to Public Resources Code section 21081 and California Environmental Quality Act (CEQA) Guidelines section 15091, no public agency shall approve or carry out a project for which an Environmental Impact Report (EIR) has been completed that identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless the public agency makes one or more of the following findings with respect to each significant impact:

1. Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.
2. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.
3. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

The Commission has made one or more of these specific written findings regarding each significant impact associated with the Project. These findings are presented below, along with a presentation of facts in support of the findings. Concurrent with the adoption of the findings, the Commission adopts the Mitigation Monitoring and Reporting Program (Chapter 4, FEIR).

The EIR evaluation included a detailed analysis of impacts in numerous environmental disciplines, analyzing the proposed project and alternatives, including a No Project Alternative. The EIR discloses the environmental impacts expected to result from the construction and operation of the SOCRE proposed project. Where possible, mitigation measures were identified to avoid or minimize significant environmental effects. In addition, SDG&E committed to implementing measures to reduce the direct and indirect impacts that will result from proposed project activities. These measures, referred to as Applicant Proposed Measures (APMs), were identified by SDG&E in its CPCN Application to the Commission. Table 2-12 (Applicant Proposed Measures) in Section 2.6 of the FEIR Exhibit 1 provides a detailed list of the APMs. The issue area analyses of the EIR assumed the APMs to be part of the proposed project, and were applied to help reduce project impacts. APMs are discussed below in the findings for each applicable environmental impact. The mitigation measures identified in the EIR are measures proposed by the lead agencies, responsible or trustee agencies, or other persons that were not included in the proposed project but could reasonably be expected to reduce adverse impacts if required as conditions of approving the proposed project, as required by CEQA Guidelines Section 15126.4(a)(1)(A).

1.1 Findings on Significant Environmental Impacts That Cannot Be Avoided or Reduced to a Less than Significant Level

Based on the issue area assessment in the EIR, the Commission has determined that the proposed project will have significant impacts in the resource areas discussed below, and that these impacts cannot be avoided or reduced despite the incorporation of all feasible mitigation measures identified in the EIR. These findings are based on the discussion of impacts in the detailed issue area analyses in the EIR.

1.1.1. Air Quality

1.1.1.1 Impact AQ-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Applicant Proposed Measures and Mitigation Measures:

- **APM AQ-1: Control Fugitive Dust Emissions;**
- **APM AQ-2: Minimize NO_x and Particulate Matter (PM) Emissions from Off-Road Diesel-Powered Construction Equipment;**
- **MM AQ-1: Oxides of Nitrogen (NO_x) Credits.**

Implementation. These applicant proposed measures and mitigation measure will be included in the conditions of approval for the project.

Finding. The CPUC finds that changes or alterations have been incorporated into the project which mitigate significant effects on the environment from Impact AQ-2. Specifically, the APMs and mitigation measure (MM) listed above are feasible and are hereby adopted to mitigate significant effects from Impact AQ-2. However, even with the implementation of these APMs and MM, significant unavoidable impacts will occur. The EIR does not identify additional feasible mitigation measures to further reduce the significant impact.

Rationale for Finding. The majority of the proposed project components are located in Orange County and are within the South Coast Air Basin, while a small portion of the components are within San Diego County, which is in the San Diego County Air Basin. The EIR used local significance thresholds developed by the South Coast Air Quality Management District (SCAQMD) and considered the SCAQMD and San Diego Air Pollution Control District (SDAPCD) criteria pollutant emissions separately.

SCAQMD:

The maximum daily construction emissions would exceed the regional significance thresholds for reactive organic gas (ROG), Nitrogen oxides (NO_x), particulate matter less than or equal to 10 microns in diameter (PM₁₀), and particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}). APM AQ-1 and APM AQ-2 require control of fugitive dust and reduce emissions from vehicles and heavy equipment, which would reduce emissions, but not enough to reduce emissions to below the regional significance thresholds. MM AQ-1 requires the applicant to purchase NO_x emission offsets through SCAQMD's Regional Clean Air Incentive Market Trading Credits and will reduce impacts from NO_x emissions to less than significant. ROG, PM₁₀, and PM_{2.5} emissions would remain significant and unavoidable. See Section 4.3.3.3 of FEIR Exhibit 1 for additional detail regarding emission levels. Construction would, therefore, result in a temporary, significant and unavoidable impact on ambient air quality with respect to ROG, PM₁₀, and PM_{2.5} emissions.

Emissions of NO_x , PM_{10} , and $\text{PM}_{2.5}$ during various substation and transmission line construction phases are above the localized significance thresholds (LST) and would have a short-term, significant impact on air quality during construction. APM AQ-1 and APM AQ-2 would reduce emissions, but not enough to reduce emissions to below the LST. Implementation of MM AQ-1 would reduce impacts from NO_x emissions to less than significant. However, PM_{10} and $\text{PM}_{2.5}$ would remain significant and unavoidable for LST. Emissions of carbon monoxide (CO) are below the LSTs for all phases of construction.

SDAPCD:

Maximum daily construction emissions would not exceed the SDAPCD's screening level thresholds. Impacts associated with the portion of the proposed project that would be constructed in San Diego County would be less than significant under this criterion.

In summary, implementation of APM AQ-1, APM AQ-2, and MM AQ-1 will reduce Impact AQ-2, but not to less than significant. Construction would, therefore, result in a temporary, significant, and unavoidable impact on ambient air quality with respect to ROG, PM_{10} , and $\text{PM}_{2.5}$ emissions for regional significance thresholds and with respect to PM_{10} and $\text{PM}_{2.5}$ emissions for LSTs.

1.1.1.2 Impact AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment.

Applicant Proposed Measures:

- **APM AQ-1: Control Fugitive Dust Emissions;**
- **APM AQ-2: Minimize NO_x and Particulate Matter (PM) Emissions from Off-Road Diesel-Powered Construction Equipment.**

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. The CPUC finds that changes or alterations have been incorporated into the project which mitigate significant effects on the environment from Impact AQ-3. Specifically, the APMs listed above are feasible and are hereby adopted to mitigate significant effects from Impact AQ-3. However, even with the implementation of these APMs, significant unavoidable impacts will occur. The EIR does not identify additional feasible mitigation measures to further reduce the significant impact.

Rationale for Finding. The SCAQMD is currently in nonattainment for ozone, PM_{10} , and $\text{PM}_{2.5}$. Maximum daily construction emissions would exceed the regional significant thresholds for ozone precursors, PM_{10} , and $\text{PM}_{2.5}$. Implementation of APM AQ-1 and APM AQ-2 to control fugitive dust emissions and reduce emissions from vehicles and heavy equipment would reduce emissions, but not to levels below the regional significant thresholds.

These emissions would therefore result in a cumulatively considerable and therefore significant and unavoidable impact, though temporary, on ambient air quality during construction activities.

1.1.1.3 Impact AQ-4: Exposure of sensitive receptors to substantial pollutant concentrations.

Applicant Proposed Measures and Mitigation Measures:

- **APM AQ-1: Control Fugitive Dust Emissions;**

- **APM AQ-2: Minimize NO_x and Particulate Matter (PM) Emissions from Off-Road Diesel-Powered Construction Equipment;**
- **MM AQ-1: Oxides of Nitrogen (NO_x) Credits.**

Implementation. These applicant proposed measures and mitigation measure will be included in the conditions of approval for the project.

Finding. The CPUC finds that changes or alterations have been incorporated into the project which mitigate significant effects on the environment from Impact AQ-4. Specifically, the APMs and MM listed above are feasible and are hereby adopted to mitigate significant effects from Impact AQ-4. However, even with the implementation of these APMs and MM, significant unavoidable impacts will occur. The EIR does not identify additional feasible mitigation measures to further reduce the significant impact.

Rationale for Finding. Implementation of APM AQ-1 and APM AQ-2 would reduce fugitive dust emissions and reduce emissions from vehicles and heavy equipment, but not to levels below the LST. MM AQ-1 requires the applicant to purchase NO_x emission offsets, which would reduce impacts from NO_x emissions to less than significant. PM₁₀ and PM_{2.5} emissions would remain significant and unavoidable.

Construction of the proposed project would, therefore, result in a temporary, significant, and unavoidable impact on ambient air quality near sensitive receptors with respect to PM₁₀ and PM_{2.5} emissions.

1.1.2 Cultural Resources

1.1.2.1 Impact CUL-1: Substantial adverse change in the significance of an historical resource.

Applicant Proposed Measures and Mitigation Measures:

- **APM CUL-1: Worker Training for Cultural Resources;**
- **APM CUL-2: Cultural Resource Monitoring;**
- **APM CUL-3: Avoid Known Cultural Resources;**
- **APM CUL-4: Unanticipated Cultural Finds;**
- **APM CUL-5: Curate Cultural Discoveries;**
- **APM CUL-6: Archeological Monitoring Results Report;**
- **APM CUL-7: Monitoring by Native Americans;**
- **APM CUL-10: Building of Distinction Requirements;**
- **MM CUL-1: Supplemental Worker Training for Cultural Resource;**
- **MM CUL-2: Construction Monitoring Plan;**
- **MM CUL-3: Qualified Cultural Resources Consultants;**

- **MM CUL-4: Native American Consultation and Participation Planning;**
- **MM CUL-5: Additional Cultural Resources Surveys;**
- **MM CUL-8: Preservation of Former Utility Structure at Capistrano Substation.**

Implementation. These applicant proposed measures and mitigation measures will be included in the conditions of approval for the project.

Finding. The CPUC finds that changes or alterations have been incorporated into the project which mitigate significant effects on the environment from Impact CUL-1. Specifically, the APMs and MMs listed above are feasible and are hereby adopted to mitigate significant effects from Impact CUL-1. However, even with the implementation of these APMs, significant unavoidable impacts will occur. The EIR does not identify additional feasible mitigation measures to further reduce the significant impact.

Rationale for Finding. Ground-disturbing activities during construction or restoration could significantly damage known prehistoric sites and previously undiscovered historical resources within the proposed project area. To address this, the applicant would implement APM CUL-1 through APM CUL-7, requiring the applicant to train all construction workers on the procedures to follow if cultural resources are discovered, monitor within the vicinity of known cultural resources, demarcate cultural resources as Environmentally Sensitive Areas in the field, halt construction in the event that cultural resources are discovered, curate and report cultural discoveries, and prepare a report of the monitoring program. APM CUL-10 includes the conditions of Council Policy 602.

To further reduce the potential impacts to a level less than significant, the applicant will implement MM CUL-1 through MM CUL-5. MM CUL-1 requires the applicant to train construction workers how to identify cultural resources in the field and to train workers about their personal legal responsibility to avoid damaging a cultural resource. MM CUL-2 requires the applicant to prepare and implement a Construction Monitoring Plan identifying areas that would require a CPUC-approved cultural monitor to be present during ground-disturbing activities. MM CUL-3 defines the required expertise for a qualified or CPUC-approved archaeologist. MM CUL-4 requires the applicant to prepare and implement a Native American Consultation and Participation Plan to ensure that Native American resources are not impacted. MM CUL-5 requires the applicant to conduct intensive-level cultural resources surveys for all areas to be disturbed that have not already been surveyed for cultural resources. This would reduce impacts to known resources (except the former utility structure at Capistrano Substation) and to unknown resources to less than significant.

MM CUL-8 would reduce impacts on a portion of the former utility structure at Capistrano Substation; however, because there is evidence that the entire former utility structure, as well as the surrounding property, may be determined eligible for listing on the National Register of Historical Places (NRHP), impacts would remain significant; the proposed project would have a significant impact on a historical resource. There are no feasible mitigation measures identified in the EIR that would reduce the impacts to less than significant, and this impact would be significant and unavoidable. See Section 4.5.3.3 of FEIR Exhibit 1 for additional details.

Implementation of APM CUL 1 through APM CUL-7, APM CUL-10, MM CUL-1 through MM CUL-5, and MM CUL-8 will reduce most impacts under Impact CUL-1 to less than significant; however, since there is evidence that the former utility structure and surrounding property may be deemed eligible for listing on the NRHP, impacts would remain significant and unavoidable at Capistrano Substation.

1.1.3 Cumulative

1.1.3.1 Cumulative Air Quality Impact

Applicant Proposed Measures:

- **APM AQ-1: Control Fugitive Dust Emissions;**
- **APM AQ-2: Minimize NO_x and Particulate Matter (PM) Emissions from Off-Road Diesel-Powered Construction Equipment.**

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. The CPUC finds that changes or alterations have been incorporated into the project which mitigate significant effects on the environment from cumulative air quality impacts. Specifically, the APMs listed above are feasible and are hereby adopted to mitigate significant cumulative air quality impacts. However, even with the implementation of these APMs, a cumulatively considerable, significant, unavoidable impact will occur.

Rationale for Finding. The SCAQMD is currently in nonattainment for ozone, PM₁₀, and PM_{2.5}. Maximum daily construction emissions would exceed the regional significant thresholds for ozone precursors, PM₁₀, and PM_{2.5}. Implementation of APM AQ-1 and APM AQ-2 to control fugitive dust emissions and reduce emissions from vehicles and heavy equipment would reduce emissions, but not to levels below the regional significant thresholds.

These emissions would therefore result in a cumulatively considerable and therefore significant impact, though temporary, on ambient air quality during construction activities.

1.2 Findings on Significant Environmental Impacts That Can Be Reduced to a Less than Significant Level

The Commission finds that the following environmental impacts can and will be mitigated to below a level of significance based upon the implementation of the mitigation measures in the EIR. These findings are based on the discussion of impacts in the detailed issue area analyses in the EIR.

1.2.1 Aesthetics

1.2.1.1 Impact AE-1: Result in a substantial adverse effect on a scenic vista.

Applicant Proposed Measures and Mitigation Measures:

- **APM AES-1: Clean Work Areas;**
- **APM AES-2: Restoring Disturbed Areas;**
- **MM AES-2: Minimize Clearing and Ground Disturbance and Restore Disturbed Areas to Pre-Project Conditions;**
- **MM AES-3: Screen or Effectively Locate Laydown Areas.**

Implementation. These applicant proposed measures and mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM AES-1 and APM AES-2 require work areas to be kept clean and require restoration of disturbed areas. MM AES-2 and MM AES-3 further reduce impacts by requiring the applicant to visually screen staging areas and worksites and requires the applicant to minimize clearing and ground disturbance and to restore disturbed areas to pre-project conditions.

Implementing APM AES-1, APM AES-2, MM AES-2, and MM AES-3 will reduce Impact AE-1 to a less than significant level.

1.2.1.2 Impact AE-3: Substantially degrade the existing visual character or quality of the site and its surroundings.

Applicant Proposed Measures and Mitigation Measures:

- **APM AES-1: Clean Work Areas;**
- **APM AES-2: Restoring Disturbed Areas;**
- **APM AES-3: Visual Screening - San Juan Capistrano Substation;**
- **MM AES-1: Architectural Review of San Juan Capistrano Substation;**
- **MM AES-2: Minimize Clearing and Ground Disturbance and Restore Disturbed Areas to Pre-Project Conditions;**
- **MM AES-3: Screen or Effectively Locate Laydown Areas;**
- **MM AES-4: Glare and Color Contrast Reduction for Transmission Structures and Conductors.**

Implementation. These applicant proposed measures and mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM AES-1 and APM AES-2 require work areas to be kept clean and require disturbed areas be restored. MM AES-2 and MM AES-3 further reduce impacts by requiring the applicant to visually screen staging areas and worksites and requiring the applicant to minimize clearing and ground disturbance and to restore disturbed areas to pre-project conditions. Views from the Camino Capistrano have high visual sensitivity, and therefore APM AES-3 and MM AES-1 require visual screening of San Juan Capistrano Substation using landscaping and a review of the architecture to ensure the design is aesthetically consistent with the City of San Juan Capistrano's aesthetic design criteria. Further, impacts of glare and color contrast will be reduced through implementation of MM AES-4, which requires all new transmission structures to be non-reflective.

Implementing APM AES-1, APM AES-2, APM AES-3, MM AES-1, MM AES-2, MM AES-3, and MM AES-4 will reduce Impact AE-3 to a less than significant level.

1.2.1.3 Impact AE-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Mitigation Measure:

- **MM AES-5: Shield or Downcast Construction Lighting.**

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. MM AES-5 requires construction lighting to be shielded or downcast during nighttime construction.

Implementing MM AES-5 will reduce Impact AE-4 to a less than significant level.

1.2.2 Biological Resources

The applicant has not committed to any APMs beyond those provided in the SDG&E Subregional Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) (see Appendix O of the FEIR for a list of measures), which details conservation measures for biological resources, including several Covered Species.

1.2.2.1 Impact BR-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS).

Mitigation Measures and NCCP/HCP Conservation Measures:

- **MM BR-1: Limit Construction to Designated Areas and Protect Riparian, Aquatic, and Wetland Areas;**
- **MM BR-2: Biological Monitoring;**
- **MM BR-3: Preconstruction Surveys;**
- **MM BR-4: Limit Removal of Native Vegetation Communities and Trees;**
- **MM BR-5: Avian Safe Building Standards;**
- **MM BR-6: Migratory Birds and Raptors Impact Reduction Measures;**
- **MM BR-7: Coastal Cactus Wren Avoidance;**
- **MM BR-8: Western Burrowing Owl Impacts Reduction Measures;**
- **SDG&E Subregional NCCP/HCP Conservation Measures.**

Implementation. These mitigation measures and the NCCP/HCP conservation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Special status plants and USFWS-designated critical habitat could be impacted by the proposed project. The applicant would be required to implement the conservation measures described in the NCCP/HCP to protect special status plant species covered under the NCCP/HCP and critical habitat within the boundaries of the SDG&E Subregional NCCP/HCP, including an employee-training program, flagging boundaries of habitat, and pre-activity surveys. To reduce impacts on species not covered under the NCCP/HCP to less than significant, the applicant will implement several mitigation measures.

Special Status Fish: Arroyo chub and southern steelhead are not Covered Species; however, potential impacts on this species will be mitigated by MM BR-1 and MM BR-2. MM BR-1 limits construction to designated areas and requires spanning of riparian, aquatic, and wetland areas to the greatest extent feasible. MM BR-2 requires biological monitors to be present during construction activities in areas where sensitive resources have been identified. Impacts would be reduced to less than significant with implementation of MM BR-1 and MM BR-2.

Special Status Amphibians and Reptiles: Arroyo toad, Belding's orange-throated whiptail, coast horned lizard, northern red-diamond rattlesnake, two-striped garter snake, western pond turtle, and western spadefoot have suitable habitat within the proposed project area; however, all of these species are Covered Species, and any potential impacts would be reduced to less than significant by implementing the conservation measures in the NCCP/HCP.

Special Status Birds: Several special status birds were documented in the area, including coastal California gnatcatcher, least Bell's vireo, southern willow flycatcher, American peregrine falcon, and Cooper's hawk. All special status species birds that are likely to occur in the proposed project area, with the exception of the white-tailed kite, are Covered Species. In addition to the NCCP/HCP conservation measures, the applicant will implement MM BR-3, MM BR-7, and MM BR-8, which, respectively, require preconstruction surveys and impact avoidance. Potential impacts on these species and their habitat would be reduced to less than significant by implementing the conservation measures in the NCCP/HCP, as well as MM BR-3, MM BR-7, and MM BR-8.

Nesting Birds: Nesting birds are protected by the MBTA and California Fish and Game Code. White-tailed kite, a Fully Protected species, and other migratory birds not covered under the NCCP/HCP require additional mitigation measures to ensure that potential impacts are less than significant. MM BR-2 requires construction monitoring; MM BR-3 requires preconstruction surveys; MM BR-4 limits removal of vegetation in riparian and other areas that may support migratory bird species' nesting habitat; MM BR-5 requires the applicant to use Avian Safe Building Standards; and MM BR-6 requires the applicant to prepare and implement a Nesting Bird Management Plan. Impacts to nesting birds would be less than significant with implementation of NCCP/HCP conservation measures and MM BR-2 through MM BR-6.

Special Status Mammals: The Dulzura pocket mouse, mountain lion, San Diego black-tailed jackrabbit, and southern mule deer are Covered Species, and any potential impacts would be reduced to less than significant by implementing the conservation measures in the NCCP/HCP. The proposed project area has suitable foraging habitat for the pallid bat, which is not a Covered Species. Implementation of MM BR-3 and MM BR-4, which, respectively, require preconstruction survey sweeps and limit the removal of riparian habitat that may support pallid bat, would reduce the potential impacts to less than significant.

Compliance with the SDG&E Subregional NCCP/HCP will reduce impacts on Covered Species and their habitat to a less than significant level. Implementation of MM BR-1 through MM BR-8 will reduce Impact BR-1 for non-covered species to less than significant.

1.2.2.2 Impact BR-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

Mitigation Measures and NCCP/HCP Conservation Measures:

- MM BR-2: Biological Monitoring;
- MM BR-3: Preconstruction Surveys;
- MM BR-4: Limit Removal of Native Vegetation Communities and Trees;
- MM BR-9: Invasive Plant Control Measures;
- SDG&E Subregional NCCP/HCP Conservation Measures.

Implementation. These mitigation measures and NCCP/HCP conservation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. There are several special status natural communities within the project area that are covered under the NCCP/HCP. The NCCP/HCP requires pre-activity studies, which would minimize the removal of special status natural communities; however, construction activities and traffic related to the proposed project would have the potential to cause significant impacts on sensitive natural communities. Therefore, additional mitigation is required in order to reduce the impacts to less than significant. MM BR-2 requires preconstruction clearance surveys, and MM BR-3 requires biological monitoring during construction. MM BR-2 and MM BR-3 will reduce impacts on natural communities by identifying the locations of sensitive natural resources and special status natural communities so they would be avoided during construction. MM BR-4 limits the removal of native vegetation communities and MM BR-9 requires the applicant to implement invasive species control measures during construction and restoration activities.

Implementation of the SDG&E Subregional NCCP/HCP, MM BR-2, MM BR-3, MM BR-4, and MM BR-9 will reduce Impact BR-2 to less than significant.

1.2.2.3 Impact BR-3: Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

NCCP/HCP Conservation Measures:

- SDG&E Subregional NCCP/HCP

Implementation. These conservation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Construction of the proposed project would temporarily impact approximately 0.0006 acre of an ephemeral drainage within the tributary to Prima Deshecha Cañada northwest of Transmission Line Pole 23. Implementation of the SDG&E Subregional NCCP/HCP operational protocols (in particular, 7.1.4-20 through 23) would reduce direct and indirect impacts on jurisdictional waters to less than significant.

Implementation of the SDG&E Subregional NCCP/HCP will reduce Impact BR-3 to a level less than significant.

1.2.2.4 Impact BR-4: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

NCCP/HCP Conservation Measures:

- SDG&E Subregional NCCP/HCP

Implementation. These conservation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The SDG&E Subregional NCCP/HCP protects corridors as mitigation for impacts due to operations activities.

Implementation of the SDG&E Subregional NCCP/HCP will reduce Impact BR-3 to less than significant.

1.2.2.5 Impact BR-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

NCCP/HCP Conservation Measures:

- SDG&E Subregional NCCP/HCP

Implementation. These conservation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The proposed project area may include individual oak trees and stands of oak or eucalyptus trees that support special status species. Implementation of the operational protocols in the SDG&E Subregional NCCP/HCP, designed to reduce impacts on native vegetation and habitats, would reduce impacts on trees and sensitive natural communities to less than significant.

Implementation of the SDG&E Subregional NCCP/HCP will reduce Impact BR-3 to less than significant.

1.2.2.6 Impact BR-6: Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

Mitigation Measure and NCCP/HCP Conservation Measures:

- **MM BR-10: Mitigation Plan Development;**
- **SDG&E Subregional NCCP/HCP Conservation Measures.**

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The proposed project is considered a covered action under the SDG&E Subregional NCCP/HCP; the SDG&E Subregional NCCP/HCP contains measures to coordinate with the NCCP/HCP implementing entities and to provide additional mitigation in the event of permanent or temporary impacts on HCP/NCCP preserve areas. MM BR-10 requires the applicant to obtain written verification from USFWS and CDFW that requirements under the SDG&E Subregional NCCP/HCP have been completed prior to the start of construction. Implementation of MM BR-10, as well as the NCCP/HCP measures, would reduce potential conflicts with SDG&E Subregional NCCP/HCP to less than significant.

Implementation of the SDG&E Subregional NCCP/HCP and MM BR-10 will reduce Impact BR-6 to less than significant.

1.2.3 Cultural Resources

1.2.3.1 Impact CUL-2: Substantial adverse change in the significance of an archaeological resource.

Applicant Proposed Measures and Mitigation Measures:

- **APM CUL-1: Worker Training for Cultural Resources;**
- **APM CUL-2: Cultural Resource Monitoring;**
- **APM CUL-3: Avoid Known Cultural Resources;**
- **APM CUL-4: Unanticipated Cultural Finds;**
- **APM CUL-5: Curate Cultural Discoveries;**
- **APM CUL-6: Archeological Monitoring Results Report;**
- **MM CUL-1: Supplemental Worker Training for Cultural Resource;**
- **MM CUL-2: Construction Monitoring Plan;**
- **MM CUL-3: Qualified Cultural Resources Consultants;**

- **MM CUL-4: Native American Consultation and Participation Planning;**
- **MM CUL-5: Additional Cultural Resources Surveys.**

Implementation. These applicant proposed measures and mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM CUL-1 through APM CUL-6 together require the applicant to train all construction workers on the procedures to be followed if cultural resources are discovered, monitor within the vicinity of known cultural resources, demarcate cultural resources as Environmentally Sensitive Areas in the field, halt construction in the event that cultural resources are discovered, curate and report cultural discoveries, and prepare a report of the monitoring program.

Further, MM CUL-1 requires the applicant to train construction workers how to identify cultural resources in the field and trains workers on their personal legal responsibility to avoid damaging a cultural resource. MM CUL-2 requires the applicant to prepare and implement a Construction Monitoring Plan identifying areas that would require a CPUC-approved cultural monitor to be present during ground-disturbing activities. MM CUL-3 defines the required expertise for a qualified or CPUC-approved archaeologist. MM CUL-4 would require Native American consultation and participation planning. MM CUL-5 would require the applicant to conduct intensive-level cultural resource surveys for all areas to be disturbed that have not already been surveyed for cultural resources.

Implementation of APM CUL-1 through APM CUL-6 and MM CUL-1 through MM CUL-5 will reduce Impact CUL-2 to less than significant.

1.2.3.2 Impact CUL-3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Applicant Proposed Measures and Mitigation Measures:

- **APM CUL-1: Worker Training for Cultural Resources;**
- **APM CUL-8: Paleontological Monitoring;**
- **APM CUL-9: Discovery of Fossils;**
- **MM CUL-1: Supplemental Worker Training for Cultural Resource;**
- **MM CUL-6: Qualified Paleontological Consultants;**
- **MM CUL-7: Paleontological Monitoring and Treatment Plan.**

Implementation. These applicant proposed measures and mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM CUL-1, APM CUL-8, and APM CUL-9, would, respectively, require the applicant to train all construction workers on the procedures to follow in the event of a discovery of paleontological resources, have a paleontological monitor present during excavation operations that involve the original cutting of previously undisturbed deposits with high paleontological resource sensitivity, and halt construction in the event that fossils are encountered so that the resources could be recovered.

MM CUL-1, MM CUL-6, and MM CUL-7 would, respectively, require the applicant to provide additional preconstruction training to all onsite personnel regarding paleontological resources; prepare the Paleontological Monitoring and Treatment Plan to meet additional standards and submit the plan to the CPUC for review; and use a qualified paleontological consultant as determined by the CPUC.

Implementation of APM CUL-1, APM CUL-8, APM CUL-9, MM CUL-1, MM CUL-6, and MM CUL-7 will reduce Impact CUL-3 to less than significant.

1.2.3.4 Impact CUL-4: Disturb any human remains, including those interred outside of formal cemeteries.

Applicant Proposed Measures and Mitigation Measures:

- **APM CUL-1: Worker Training for Cultural Resources;**
- **APM CUL-2: Cultural Resource Monitoring;**
- **APM CUL-3: Avoid Known Cultural Resources;**
- **APM CUL-4: Unanticipated Cultural Finds;**
- **APM CUL-5: Curate Cultural Discoveries;**
- **APM CUL-6: Archeological Monitoring Results Report;**
- **MM CUL-1: Supplemental Worker Training for Cultural Resource;**
- **MM CUL-2: Construction Monitoring Plan;**
- **MM CUL-3: Qualified Cultural Resources Consultants.**

Implementation. These applicant proposed measures and mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM CUL-1 through APM CUL-6 would, respectively, require the applicant to train all construction workers on the procedures to follow if a cultural resource is discovered, monitor within the vicinity of known cultural resources, demarcate cultural resources as Environmentally Sensitive Areas in the field, halt construction in the event that cultural resources are discovered, curate and report cultural discoveries, and prepare a report of the monitoring program.

MM CUL-1 requires the applicant to train construction workers how to identify human remains in the field and to train workers on their personal legal responsibility to avoid damaging a cultural resource.

MM CUL-2 requires the applicant to prepare and implement a Construction Monitoring Plan identifying areas that would require a CPUC-approved cultural monitor to be present during ground-disturbing activities. MM CUL-3 defines the require expertise for a qualified or CPUC-approved archaeologist.

Implementation of APM CUL-1 through APM CUL-6, MM CUL-1, MM CUL-2, and MM CUL-3 will reduce Impact CUL-4 to less than significant.

1.2.4 Geology, Soils, and Mineral Resources

1.2.4.1 Impact GE-2: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

Applicant Proposed Measures:

- **APM GEO-1: Conduct an Engineering-level Geotechnical Investigation for Liquefaction Potential and Implement Recommended Design Measures;**
- **APM GEO-2 Conduct an Engineering-level Geotechnical Survey for Landslides and Implement Recommended Design Measures to Ensure Slope Stability is not Impacted and the Potential for Damage to Protect Structures is Minimized.**

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The results of the geotechnical investigation and geotechnical soil borings (APM GEO-1 and APM GEO-2) would provide recommendations for the design of project components to ensure compliance with applicable California Building Code standards, which require that structures and permanently attached nonstructural components be designed and built to resist the effects of earthquakes.

Implementation of APM GEO-1 and APM GEO-2 will reduce Impact GE-2 to less than significant.

1.2.4.2 Impact GE-3: Expose people or structure to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.

Applicant Proposed Measures and Mitigation Measures:

- **APM GEO-1: Conduct an Engineering-level Geotechnical Investigation for Liquefaction Potential and Implement Recommended Design Measures;**
- **MM GEO-1: Conduct an Engineering-level Geotechnical Investigation for Liquefaction Potential and Implement Recommended Design Measures.**

Implementation. This applicant proposed measure and mitigation measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. To ensure that structures are designed to minimize potential damage, the applicant will conduct additional geotechnical investigations at these locations prior to the start of construction as required by MM GEO-1. Recommendations from the additional geotechnical investigations at these locations will be incorporated into the final design for these structures. Prior to construction, APM GEO-1 would require an engineering-level geotechnical investigation to be performed to further evaluate the liquefaction potential at each of these pole locations and to develop design measures to minimize the potential for damage to proposed project structures in the event of strong ground shaking.

Implementation of APM GEO-1 and MM GEO-1 will reduce Impact GE-3 to less than significant.

1.2.4.3 Impact GE-4: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

Applicant Proposed Measures:

- **APM GEO-2 Conduct an Engineering-level Geotechnical Survey for Landslides and Implement Recommended Design Measures to Ensure Slope Stability is not Impacted and the Potential for Damage to Protect Structures is Minimized.**

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would implement APM GEO-2, which requires that the applicant perform an engineering-level geotechnical investigation at each pole location along the transmission line route that is in or near a mapped landslide or other unstable slope condition prior to construction.

Implementation of APM GEO-2 will reduce Impact GE-4 to less than significant.

1.2.4.4 Impact GE-6: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Applicant Proposed Measures:

- **APM GEO-1: Conduct an Engineering-level Geotechnical Investigation for Liquefaction Potential and Implement Recommended Design Measures;**
- **APM GEO-2 Conduct an Engineering-level Geotechnical Survey for Landslides and Implement Recommended Design Measures to Ensure Slope Stability is not Impacted and the Potential for Damage to Protect Structures is Minimized.**

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would implement APM GEO-2, which requires that the applicant perform an engineering-level geotechnical investigation at each pole location along the transmission line route that is in or near a mapped landslide or other unstable slope condition prior to construction.

Liquefaction and lateral spreading could result in lowland areas where saturated sandy soil loses strength and cohesion due to ground shaking during an earthquake. In these areas, based on the results of the geotechnical investigation and as part of implementing APM GEO-1, the applicant would design project components to minimize potential for liquefaction and incorporate ground improvements in liquefiable zones.

Implementation of APM GEO-1 and APM GEO-2 will reduce Impact GE-6 to less than significant.

1.2.4.5 Impact GE-7: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Applicant Proposed Measures:

- **APM GEO-1: Conduct an Engineering-level Geotechnical Investigation for Liquefaction Potential and Implement Recommended Design Measures;**
- **APM GEO-2 Conduct an Engineering-level Geotechnical Survey for Landslides and Implement Recommended Design Measures to Ensure Slope Stability is not Impacted and the Potential for Damage to Protect Structures is Minimized.**

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would use the results of the geotechnical investigations, as described in APM GEO-1 and APM GEO-2, to inform the final engineering designs of the transmission line foundations and other structures that may be impacted by expansive soils. The project would also be required to comply with all applicable building codes.

Implementation of APM GEO-1 and APM GEO-2 will reduce Impact GE-7 to less than significant.

1.2.5 Greenhouse Gases

1.2.5.1 Impact GG-2: Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases (GHGs).

Applicant Proposed Measures and Mitigation Measures:

- **APM GHG-1: Operations Emissions Controls**

Implementation. This applicant proposed measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. For the major potential permanent source of GHG during project long-term operations (sulfur hexafluoride; SF₆), the applicant is required to comply with federal and state regulations for reducing emissions from gas-insulated switchgear (40 Code of Federal Regulations Part 98, Subpart DD and 17 California Code of Regulations Sections 95350 to 95359). To comply with these regulations, the applicant would control SF₆ purchases, use, and emission rates and implement APM GHG-1 during operation and maintenance of the proposed project.

Implementation of APM GHG-1 will reduce Impact GG-2 to less than significant.

1.2.6 Hazards and Hazardous Materials

1.2.6.1 Impact HZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Applicant Proposed Measures and Mitigation Measures:

- APM HAZ-2: Hazardous Materials and Waste Management Plan;
- APM HAZ-3: Personal Protection Equipment;
- MM HAZ-1: Hazardous Substances Contamination Prevention Plan;
- MM HAZ-2: Contaminated Materials from MCB Camp Pendleton.

Implementation. These applicant proposed measures and mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would implement APM HAZ-2, which would require hazardous materials transportation security plans, hazardous materials and waste management procedures, hazardous materials and waste shipping procedures, hazardous waste minimization plans, and a field guide for emergency incidents. MM HAZ-1 supplements APM HAZ-2 by adding specific measure and procedures and require the applicant to develop a Hazardous Substances Contamination Prevention Plan. The applicant would use specialized crews to conduct removal and stabilization activities as specified in APM HAZ-3 to reduce the impacts from the disposal of hazardous waste during construction. MM HAZ-2 would require the applicant to test any materials that would be removed from within Marine Corps Base (MCB) Camp Pendleton boundaries in accordance with U.S. Environmental Protection Agency (EPA) Best Management Practices for Outdoor Shooting Ranges (EPA-902-B-01-001).

Implementation of APM HAZ-2, APM HAZ-3, MM HAZ-1, and MM HAZ-2 will reduce Impact HZ-1 to a less than significant level.

1.2.6.2 Impact HZ-2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Applicant Proposed Measures and Mitigation Measures:

- APM HAZ-2: Hazardous Materials and Waste Management Plan;

- **APM HAZ-5: Recycling and Reuse;**
- **MM HAZ-1: Hazardous Substances Contamination Prevention Plan;**
- **MM HAZ-2: Contaminated Materials from MCB Camp Pendleton;**
- **MM HAZ-3: Worker Safety Training;**
- **MM HAZ-5: Discovery of an Unrecorded Oil or Gas Well.**

Implementation. These applicant proposed measures and mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM HAZ-2 and APM HAZ-5 would reduce the potential impacts associated with the transport, use, or disposal of hazardous materials and petroleum products in accordance with all applicable federal, state, and local regulations. To further reduce impacts, MM HAZ-1 would require the implementation of a Hazardous Substances Contamination Prevention Plan, and MM HAZ-2 would require the applicant to test any materials within MCB Camp Pendleton boundaries in accordance with EPA Best Management Practices for Outdoor Shooting Ranges (EPA-902-B-01-001). Implementation of MM HAZ-3 would require worker training for all construction and operation workers prior to the start of work at Talega Substation to inform the workers of the potential hazards associated with working within MCB Camp Pendleton and to train workers how to identify an unexploded ordinance and what to do if a potential unexploded ordinance is discovered. Implementation of MM HAZ-5 would reduce potential impacts by requiring construction workers to cease work within 50 feet of an unanticipated well until approval to resume work is provided by the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR).

Implementation of APM HAZ-2, APM HAZ-5, MM HAZ-1, MM HAZ-2, MM HAZ-3, and MM HAZ-5 will reduce Impact HZ-2 to less than significant.

1.2.6.3 Impact HZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

Applicant Proposed Measures and Mitigation Measure:

- **APM HAZ-1: Conduct Environmental Site Assessment;**
- **APM HAZ-2: Hazardous Materials and Waste Management Plan;**
- **APM HAZ-5: Recycling and Reuse;**
- **MM HAZ-1: Hazardous Substances Contamination Prevention Plan.**

Implementation. These applicant proposed measures and mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM HAZ-1, APM HAZ-2, and APM HAZ-5 would reduce the risk of releases within 0.25 miles of a school. MM HAZ-1 would further prevent the potential to release hazardous materials and would reduce impacts from the handling of hazardous materials by requiring the applicant to develop a Hazardous Substances Contamination Prevention Plan.

Implementation of APM HAZ-1, APM HAZ-2, APM HAZ-5, and MM HAZ-1 will reduce Impact HZ-3 to less than significant.

1.2.6.4 Impact HZ-4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

Applicant Proposed Measures:

- APM HAZ-1: Conduct Environmental Site Assessment;
- APM HAZ-2: Hazardous Materials and Waste Management Plan;
- APM HAZ-3: Personal Protection Equipment.

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM HAZ-1 would require that the applicant conduct Phase II Environmental Site Assessment soil sampling within the upper yard of the existing Capistrano Substation prior to the start of earth disturbing activities at the upper yard. APM HAZ-2 specifically addresses the unanticipated discovery of contaminated soil or groundwater during construction with procedures, training, and notification requirements. As detailed in APM HAZ-3, the applicant would use specialized crews to conduct removal and remediation activities.

Implementation of APM HAZ-1, APM HAZ-2, and APM HAZ-3 will reduce Impact HZ-4 to less than significant.

1.2.6.5 Impact HZ-5: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Applicant Proposed Measures:

- APM TR-3: Emergency Access;
- APM TR-7: Traffic Control Plans.

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM TR-3 would require coordination with local emergency response agencies to ensure that emergency access impacts are less than significant. APM TR-7 requires preparation and implementation of traffic control plans that would contain measures to coordinate with emergency service providers and to avoid restricting movements of emergency vehicles.

Implementation of APM TR-3 and TR-7 will reduce Impact HZ-5 to less than significant.

1.2.6.6 Impact HZ-6: Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Applicant Proposed Measure and Mitigation Measure:

- APM HAZ-6: Fire Control;
- MM HAZ-4: Fire Prevention and Emergency Response Plan.

Implementation. This applicant proposed measure and mitigation measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would implement APM HAZ-6, which would require the applicant to issue a stop work order during times of high fire threat such as a Red Flag Warning issued by the National Weather Service. To ensure that the applicant's project-specific fire plan meets all of the objectives and standards of the Orange County Fire Authority, the applicant would prepare the fire plan to meet the requirements of MM HAZ-4.

Implementation of APM HAZ-6 and MM HAZ-4 will reduce Impact HZ-6 to less than significant.

1.2.7. Hydrology and Water Quality

1.2.7.1 Impact WQ-6: Substantially degrade water quality.

Mitigation Measures:

- MM HAZ-5: Discovery of an Unrecorded Oil or Gas Well;
- MM WQ-1: Pesticide Application.

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Implementation of MM HAZ-5 would reduce potential impacts by requiring construction workers to cease work within 50 feet of an unanticipated well discovery until authorized by DOGGR. Implementation of MM WQ-1 would reduce potential pesticide application impacts to less than significant by requiring pesticide application to be in accordance with Federal Insecticide, Fungicide, and Rodenticide labels, personnel applying the pesticides to be properly trained and certified, pesticide

application to not occur less than 24 hours prior to a likely precipitation event, and only approved pesticides to be used.

Implementation of MM HAZ-5 and MM WQ-1 will reduce Impact WQ-6 to less than significant.

1.2.8 Land Use and Planning

1.2.8.1 Impact LU-2: Conflict with applicable plans, policies, or regulations.

Applicant Proposed Measure and Mitigation Measures:

- **APM PS-2: Repair Damage to Public Facilities;**
- **MM AES-1: Architectural Review of San Juan Capistrano Substation;**
- **MM AES-2: Minimize Clearing and Ground Disturbance and Restore Disturbed Areas to Pre-Project Conditions.**

Implementation. This applicant proposed measure and these mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM PS-2 requires the applicant to return recreational facilities that are physically impacted during construction to an approximate pre-construction state and would replace any public damaged or removed equipment, facilities, and infrastructure. Implementation of MM AES-1 and MM AES-2 would reduce potential conflicts with the City of San Juan Capistrano General Plan policies 2.2, 7.1, and 7.2.

Implementation of APM PS-2, MM AES-1 and MM AES-2 will reduce Impact LU-2 to less than significant.

1.2.8.2 Impact LU-3: Conflict with any applicable HCP or NCCP.

Mitigation Measure and NCCP/HCP Operational Protocols:

- **SDG&E Subregional Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) Operational Protocols;**
- **MM BR-10: Mitigation Plan Development.**

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The proposed project is considered a covered action under the SDG&E Subregional NCCP/HCP; the SDG&E Subregional NCCP/HCP contains measures to coordinate with the NCCP/HCP implementing entities and to provide additional mitigation in the event of permanent or temporary impacts on HCP/NCCP preserve areas. MM BR-10 requires the applicant to obtain written verification from USFWS and CDFW that requirements under the SDG&E Subregional NCCP/HCP have been completed prior to the start of construction. Implementation of MM BR-10 as well as the

NCCP/HCP measures would reduce potential conflicts with SDG&E Subregional NCCP/HCP to less than significant.

Implementation of MM BR-10 will reduce Impact LU-3 to a level less than significant.

1.2.9 Noise and Vibration

1.2.9.1 Impact NV-1: Noise levels in excess of standards established in the local general plan or noise ordinance.

Applicant Proposed Measures and Mitigation Measures:

- APM NOISE-1: Nighttime and Weekend Activities;
- MM NV-1: Nighttime and Weekend Construction Noise Controls;
- MM NV-2: Low-Noise Substation Equipment and Noise Barriers.

Implementation. This applicant proposed measure and these mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. When nighttime and weekend construction is necessary, the applicant would implement APM NOISE-1 to limit such activities to the extent feasible so that noise would not exceed the pertinent maximum noise level limits or the hourly L_{50} (noise standard for a cumulative period of more than 30 minutes in any hour) limits established by the applicable city ordinance when measured at the nearest property residence. Since the proposed project has the potential to exceed the local applicable noise standards during certain construction activity proposed for nights and weekends, implementation of MM NV-1 is required to ensure that the applicant obtains an authorization from the local jurisdiction prior to conducting work outside allowable construction hours, informs closest sensitive receptors with sufficient notice about construction work at night and on weekends, and conducts noise monitoring during such activities to ensure that pertinent noise exterior limits are not exceeded. MM NV-2 would require the applicant to ensure that the final substation layout includes appropriate setbacks for the 230/138-kilovolt (kV) and 138/12-kV transformer banks.

Implementation of APM NOISE-1, MM NV-1, and MM NV-2 will reduce Impact NV-1 to less than significant.

1.2.9.2 Impact NV-2: Excessive groundborne vibration or groundborne noise levels.

Mitigation Measure:

- MM NV-3: Construction Vibration Control Measures

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. To reduce potential impacts of excessive vibration, implementation of MM-NV3 includes the development of a vibration monitoring plan during final design and the implementation of a compliance monitoring plan during construction.

Implementation of MM NV-3 will reduce Impact NV-2 to less than significant.

1.2.9.3 Impact NV-3: Permanent increases in ambient noise levels in the project vicinity.

Mitigation Measures:

- **MM NV-2: Low-Noise Substation Equipment and Noise Barriers;**
- **MM NV-4: Corona Noise Reduction during Wet Weather Conditions.**

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Implementation of MM NV-2 would ensure that permanent nighttime operational noise levels would be below or equal to 45 A-weighted decibels. To reduce potential night-time corona noise at receptors located less than 45 feet from the proposed 230-kV transmission line segments, implementation of MM NV-4 would provide additional reduction to potential increases of ambient noise levels due to corona noise under wet conditions.

Implementation of MM NV-2 and MM NV-4 will reduce Impact NV-3 to less than significant.

1.2.9.4 Impact NV-4: Substantial temporary or periodic increase in ambient noise levels in the project vicinity.

Applicant Proposed Measure and Mitigation Measures:

- **APM NOISE-1: Nighttime and Weekend Activities;**
- **MM NV-1: Nighttime and Weekend Construction Noise Controls;**
- **MM NV-2: Low-Noise Substation Equipment and Noise Barriers;**
- **MM NV-4: Corona Noise Reduction during Wet Weather Conditions;**
- **MM NV-5. Noise Control Plan.**

Implementation. This applicant proposed measure and these mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. To address potential impacts from temporary increases of ambient noise levels during construction, the applicant has committed to implementing APM NOISE-1 to control nighttime construction noise. Implementation of MM NV-1 and MM NV-5 would reduce potential noise impacts on residents located in close proximity of the proposed substation, transmission, and distribution lines segments to below significance levels. Implementation of MM NV-2 would provide additional reduction

of operational noise from the proposed San Juan Capistrano Substation, reducing the risk for temporary or periodic increases in ambient noise during project operation. Implementation of MM NV-4 would provide additional reduction to potential increases of ambient noise levels at nearest sensitive receptors due to corona noise under wet conditions.

Implementation of APM NOISE-1, MM NV-1, MM NV-2, MM NV-4, and MM NV-5 will reduce Impact NV-4 to less than significant.

1.2.10 Public Services and Utilities

1.2.10.1 Impact PS-1: Results in substantial, adverse, physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

Applicant Proposed Measures:

- APM PS-1: Recreational Facility Access;
- APM PS-2: Repair Damage to Public Facilities;
- APM PS-3: Roadway Repair.

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would implement APM-PS-1 through APM-PS-3 to ensure that pedestrian and bicycle access would not be completely restricted during construction and that park facilities and roadways are returned to pre-construction conditions at the end of construction.

Implementation of APM PS-1 through APM-PS-3 will reduce Impact PS-1 to a level less than significant.

1.2.10.2 Impact PS-3: Insufficient water supplies available to serve the project from existing entitlements and resources or new or expanded entitlements required.

Mitigation Measure:

- MM PS-1: Water Efficiency Plan

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. MM PS-1 requires the preparation of a Water Efficiency Plan and the use of reclaimed water, to the extent feasible.

Implementation of MM PS-1 will reduce Impact PS-3 to a level less than significant.

1.2.11 Recreation

1.2.11.1 Impact RE-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Applicant Proposed Measure:

- APM PS-2: Repair Damage to Public Facilities

Implementation. This applicant proposed measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would implement APM PS-2 to ensure that directly impacted recreational facilities are returned to pre-construction conditions at the end of construction.

Implementation of APM PS-2 will reduce Impact RE-1 to less than significant.

1.2.12 Transportation and Traffic

1.2.12.1 Impact TT-1: Conflict with an applicable plan, ordinance, or policy establishing measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Applicant Proposed Measures and Mitigation Measure:

- APM TR-1: Avoid Traffic Near Schools;
- APM TR-2: Avoid SR-74 Traffic;
- APM TR-4: Off Peak Deliveries;
- APM TR-7: Traffic Control Plans;
- MM TR-5: Content Requirements of the Traffic Control Plan.

Implementation. These applicant proposed measures and mitigation measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would implement APM TR-1, APM TR-2, APM TR-4, and APM TR-7, which would, respectively, require the applicant to avoid generating traffic near Saddleback Valley Christian School, JSerra Catholic High School, the State Route 74 (SR-74) off-ramp from Interstate 5

(I-5), and during peak traffic hours, as well as prepare a Traffic Control Plan. MM TR-5 provides further details regarding the content of the Traffic Control Plan and restrictions for Vista Montana.

Implementation of APM TR-1, APM TR-2, APM TR-4, APM TR-7, and MM TR-5 will reduce Impact TT-1 to less than significant.

1.2.12.2 Impact TT-2: Conflict with an applicable congestion management program.

Applicant Proposed Measures:

- **APM TR-2: Avoid SR-74 Traffic;**
- **APM TR-4: Off-Peak Deliveries;**
- **APM TR-7: Traffic Control Plans.**

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM TR-7 requires that the applicant implement a Traffic Control Plan. APM TR-2 requires that applicant avoid generating traffic on the SR-74 off-ramp from I-5. APM TR-4 requires that the applicant only accept deliveries during off-peak hours to ensure that conflicts with congestion management programs and standards are avoided.

Implementation of APM TR-2, APM TR-4, and APM TR-7 will reduce Impact TT-2 to less than significant.

1.2.12.3 Impact TT-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Applicant Proposed Measure and Mitigation Measures:

- **APM TR-6: Helicopter Use;**
- **MM TR-2: Helicopter Safety Plan and External-Load Training Program;**
- **MM TR-3: Notification and Monitoring of Helicopter Use.**

Implementation. This applicant proposed measure and these mitigation measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM TR-6 states that the applicant would keep designated fly yards clear of all construction activity when helicopters are in use, and existing helicopter landing areas would be used wherever feasible. APM TR-6 also specifies that helicopter landing areas along the existing right-of-way would be located away from residences and other land uses. MM TR-2 and MM TR-3 would ensure that

workers involved in construction activities that receive loads from helicopters or assist with loading helicopters are routinely trained to identify potentially unsafe conditions associated with helicopter external load size, attachment means, or loading/unloading methods.

Implementation of APM TR-6, MM TR-2, and MM TR-3 will reduce Impact TT-3 to less than significant.

1.2.12.4 Impact TT-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Applicant Proposed Measures and Mitigation Measure:

- APM PS-2: Repair Damage to Public Facilities;
- APM TR-7: Traffic Control Plans;
- MM TR-4 City of San Juan Capistrano and City of San Clemente Traffic Engineer and Parks and Recreation Review.

Implementation. These applicant proposed measures and this mitigation measure will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. APM TR-7 requires that the applicant implement a Traffic Control Plan, which would address the transport of oversize and/or overweight deliveries. MM TR-4 would require the applicant to submit its Traffic Control Plan to the City of San Juan Capistrano and City of San Clemente for review and incorporate any recommendations from this review related to bikeway, sidewalk, and unpaved trail facilities into the Traffic Control Plan. APM PS-2 will ensure that any trails impacted during construction activities are returned to an approximate pre-construction state following the completion of the proposed project.

Implementation of APM PS-2, APM TR-7, and MM TR-4 will reduce Impact TT-4 to a level less than significant.

1.2.12.5 Impact TT-5: Result in inadequate emergency access.

Applicant Proposed Measures:

- APM TR-3: Emergency Access;
- APM TR-7: Traffic Control Plans.

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would implement APM TR-3 and APM TR-7, under which the applicant would, respectively, coordinate with local emergency response agencies throughout

construction and would prepare a Traffic Control Plan prior to construction to minimize short-term construction-related impacts on local traffic, including emergency access.

Implementation of APM TR-3 and APM TR-7 will reduce Impact TT-5 to a level less than significant.

1.2.12.6 Impact TT-6: Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Applicant Proposed Measures and Mitigation Measures:

- **APM PS-2: Repair Damage to Public Facilities;**
- **APM TR-5: Material Removal, City Streets;**
- **APM TR-7: Traffic Control Plans.**

Implementation. These applicant proposed measures will be included in the conditions of approval for the project.

Finding. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The applicant would implement APM PS-2, which would ensure that any damage done to area roadways, including bicycle lanes and sidewalks, resulting from construction work would be repaired following completion of project construction. APM TR-5 would ensure that material from undergrounding work along city streets would be removed from work areas each day to minimize traffic impacts. During construction of the proposed project, APM TR-7 would require coordination of construction work with affected local agencies, and the Traffic Control Plan would include measures for alternative routes.

Implementation of APM PS-2, APM TR-5, and APM TR-7 will reduce Impact TT-6 to a level less than significant.

1.3 Custodian of Records

The documents and other materials that constitute the record of proceedings on which the SOCRE Project findings are based are located at the California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102. The custodian for these documents is the Energy Division, CEQA Unit. This information is provided in compliance with Public Resources Code section 21081.6(a)(2) and CEQA Guidelines section 15091(e).

2 Mitigation Monitoring and Reporting Program

Section 21081.6 of the Public Resources Code requires this Commission to adopt a monitoring or reporting program regarding the changes in the project and mitigation measures imposed to lessen or avoid significant effects on the environment. The Mitigation Monitoring and Reporting Program (MMRP) is adopted because it fulfills the CEQA mitigation monitoring requirements:

- The MMRP is designed to ensure compliance with the changes in the project and mitigation measures imposed on the project during project implementation.

- Measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures.

The MMRP is provided in Chapter 4 of the FEIR. Table 4.1 of the MMRP is included below. The version of Table 4.1 below replaces Table 4.1 in Chapter 4 of the FEIR (p. 4-8 through 4-53) and contains all the mitigation measures and APMs that would be implemented for the proposed project. Clerical errors in mitigation measures and APMs from the FEIR and associated errata are corrected in this version of Table 4.1. The revisions presented in this table do not present significant new information that would deprive the public of a meaningful opportunity to comment on a significant environmental impact of the proposed project or a feasible way to mitigate or avoid such an impact. Additionally, information corrected in this document does not present a new feasible mitigation measure that is considerably different from what was previously analyzed in the FEIR. All of the information in this document merely clarifies or makes insignificant modifications to the FEIR. Because the clarifications or corrections in this document are not considered “significant,” recirculation of the FEIR is not required in accordance with Section 15088.5 of the CEQA Guidelines.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
Aesthetics		
APM AES-1: Clean Work Areas. During construction, SDG&E would keep construction activities as clean and inconspicuous as practical.	<ul style="list-style-type: none"> • Ensure that the applicant maintains construction activities in orderly fashion. 	<ul style="list-style-type: none"> • During construction and restoration.
APM AES-2: Restoring Disturbed Areas. When proposed project construction has been completed all disturbed terrain would be restored through recontouring and revegetation in order to reestablish a natural-appearing landscape and reduce potential visual contrasts between disturbed areas and the surrounding landscape.	<ul style="list-style-type: none"> • Ensure that the applicant restores disturbed areas. 	<ul style="list-style-type: none"> • During restoration.
APM AES-3: Visual Screening - San Juan Capistrano Substation. The applicant would install landscaping and a screening wall would be installed in key areas along the perimeter of San Juan Capistrano Substation to partially screen views of substation structures and to visually integrate the new substation facilities with the existing setting. Figure 2-4 depicts the general location of new substation landscaping. Plant material would be appropriate to site-specific conditions and the local landscape setting. Landscaping would be consistent with technical requirements for proposed project operations and maintenance and would incorporate input from the City of San Juan Capistrano, local residents, and SDG&E's facility security.	<ul style="list-style-type: none"> • Ensure that the applicant screens San Juan Capistrano Substation and visually integrates the substation with existing setting. 	<ul style="list-style-type: none"> • During restoration and operation.
MM AES-1: Architectural Review of San Juan Capistrano Substation. To ensure that the aesthetic design of San Juan Capistrano Substation facilities, such as walls, buildings, and landscaping, are consistent with the City of San Juan Capistrano's aesthetic design criteria, the applicant shall submit a revised series of elevations and a landscape plan to the City's Architectural Review Board (ARB) prior to filing for grading and building permits. The ARB shall have the opportunity to provide input to the CPUC on whether the applicant's revised plans are consistent with the City's aesthetic design criteria and if any modifications are appropriate. The CPUC will take into account the ARB's input in reviewing and approving the aesthetic design and landscaping for the San Juan Capistrano Substation. The applicant shall not initiate ground-disturbing activities until the CPUC approves the aesthetic design and landscaping plan for the San Juan Capistrano Substation.	<ul style="list-style-type: none"> • Ensure that the City of San Juan Capistrano's Architectural Review Board has the opportunity to provide input to the CPUC on whether the applicant's revised plans for the San Juan Capistrano Substation are consistent with the City's aesthetic design criteria and if any modifications are appropriate. 	<ul style="list-style-type: none"> • Prior to construction.
MM AES-2: Minimize Clearing and Ground Disturbance and Restore Disturbed Areas to Pre-Project Conditions. Clearing and ground disturbance required for construction, operation, and maintenance, including, but not limited to, access roads, pulling sites, construction and maintenance pads, and construction laydown areas, will be the minimum required, and the applicant will consult with the CPUC to identify and implement methods to restore disturbed areas to pre-construction conditions for all areas not required for operation and maintenance. The applicant will consult with the CPUC to identify and implement methods to restore disturbed areas to conditions that would blend with the overall landscape character, to the extent feasible. Areas around new or rebuilt transmission structures that must be cleared during the construction process or other areas of ground disturbance will be regraded and revegetated to restore these areas to an appearance that will help blend them into the overall landscape character.	<ul style="list-style-type: none"> • Ensure that the applicant minimizes ground disturbance 	<ul style="list-style-type: none"> • During construction, restoration, and operation.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>MM AES-3: Screen or Effectively Locate Laydown Areas. Laydown areas within view of residences, scenic roads, and recreational facilities will be effectively located to limit views (aesthetic effects) of materials, equipment, vehicles, and other items used during construction. Staging and laydown areas that cannot be located away from public views will be screened using opaque fencing or landscaping to limit aesthetic effects. Where laydown areas are visible from publicly accessible areas and roads, any associated signage will be kept to the minimum necessary to communicate information about the project, safety, and security. All laydown areas will be effectively reclaimed immediately following completion of their use.</p>	<ul style="list-style-type: none"> • Ensure that the applicant screens laydown areas from residences, scenic roads, and recreational facilities. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>MM AES-4: Glare and Color Contrast Reduction for Transmission Structures and Conductors. To reduce potential glare and color contrast for components of the project, the finish on all new transmission structures will be non-reflective (e.g., steel that has been galvanized and treated to create a dulled finish) to reduce light reflection and color contrast and help blend the structures into the landscape setting. All new transmission conductors will be non-specular to minimize conductor reflectivity and help blend them into the landscape setting.</p>	<ul style="list-style-type: none"> • Ensure that the applicant installs transmission structures and conductors with non-reflective finish. 	<ul style="list-style-type: none"> • During construction.
<p>MM AES-5: Shield or Downcast Construction Lighting. To reduce the potential for visual impacts associated with construction lighting, lighting for construction activities will be limited to an amount required for safety of construction personnel and security of construction equipment. In order to minimize the effect of light pollution in the surrounding area, all construction lighting will be operated and oriented to mostly or fully eliminate off-site light spill at all times.</p>	<ul style="list-style-type: none"> • Ensure that the applicant shields construction lighting. 	<ul style="list-style-type: none"> • During construction and restoration.
Air Quality		
<p>APM AQ-1: Control Fugitive Dust Emissions. The applicant would minimize fugitive dust by:</p> <ul style="list-style-type: none"> • Using a gravel apron to reduce mud/dirt track-out from unpaved truck exit routes. • Applying water to disturbed areas within a construction site. • Limiting the onsite vehicles to a 15 mph speed limit on unpaved roads. If necessary, SDG&E or its contractor(s) can install speed monitoring equipment at strategic locations and along project roads. • Requiring all trucks hauling dirt, sand, soil, or other loose material to be covered with a fabric tarp and maintain a freeboard height of 12 inches. • Applying a cover to storage piles when wind events are declared. <p>Requiring local streets to be swept by Rule 1186-compliant PM10 efficient vacuum units a minimum of once per month.</p>	<ul style="list-style-type: none"> • Ensure that the applicant implements dust control measures. 	<ul style="list-style-type: none"> • During construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>APM AQ-2: Minimize NO_x and Particulate Matter (PM) Emissions from Off-Road Diesel-Powered Construction Equipment. Where available, SDG&E will ensure that all off-road diesel-powered construction equipment with engines greater than 50 horsepower are compliant with Tier 4 interim or Tier 4 off-road emissions standards, as specified by the phase-in schedule below:</p> <ul style="list-style-type: none"> • 2015: 5% Tier 4 interim engines • 2016: 10% Tier 4 engines • 2017: 20% Tier 4 engines • 2018: 30% Tier 4 engines • 2019: 40% Tier 4 engines • 2020: 50% Tier 4 engines <p>In the event equipment with a Tier 4/Tier 4 interim engine is not available for any off-road engine larger than 50 hp, that engine shall be operated with tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to no more than Tier 3 emission levels.</p> <p>Equipment with an engine not compliant with the Tier 4/Tier 4 interim standard will be allowed only when the applicant has performed (and documented) a good faith effort (due diligence) to locate Tier 4 and/or Tier 4 interim equipment in the Project vicinity (defined as within 200 miles of the Project site). Use of older equipment (operated with tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to no more than Tier 3 emission levels) would be allowable following due diligence and associated documentation that no Tier 4/Tier 4 interim equipment (or emissions equivalent retrofit equipment) is available for a particular equipment type. Each case shall be documented with written correspondence (or signed statement and electronic mail) by the appropriate construction contractor, along with documented correspondence from at least two construction equipment rental firms providing equipment within the defined project vicinity (200 miles). Documentation of due diligence will be submitted to CPUC staff for before equipment is used on the project.</p> <p>The applicant will make available to CPUC staff and/or construction monitors a copy of each piece of construction equipment's certified tier specification, BACT documentation, and/or CARB or SCAQMD operating permit, as applicable, at the time of mobilization of each applicable unit of equipment.</p>	<ul style="list-style-type: none"> • Ensure that the applicant utilizes appropriate construction equipment. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>MM AQ-1: Oxides of Nitrogen (NO_x) Credits. The emissions of NO_x due to construction of the proposed project will be mitigated through the purchase of Regional Clean Air Incentive Market Trading Credits (RTCs) for every pound of NO_x emissions in excess of the SCAQMD regional significance threshold of 100 pounds per day. The total amount of NO_x RTCs to be purchased will be calculated when the construction schedule is finalized. The applicant will purchase and submit the required RTCs to the SCAQMD at least 60 days prior to the start of each construction year for the upcoming year of construction. The applicant will also track actual daily emissions during construction according to a monitoring plan that includes records of equipment and vehicle usage.</p>	<ul style="list-style-type: none"> • Ensure that the applicant purchases a sufficient number of RTCs. 	<ul style="list-style-type: none"> • Prior to and during construction.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
Biological Resources		
<p>SDG&E Subregional Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) Operational Protocols: See Appendix O.</p>	<ul style="list-style-type: none"> • Ensure that the applicant adheres to the requirements of the NCCP/HCP. 	<ul style="list-style-type: none"> • Prior to and during construction and during operation.
<p>MM BR-1: Limit Construction to Designated Areas and Protect Riparian, Aquatic, and Wetland Areas. In all project locations, vehicular traffic (including movement of all equipment) will be restricted to established construction areas indicated by flagging and signage. CPUC notification and approval will be required for any additional disturbance areas not already identified and evaluated for the project pursuant to CEQA. As feasible, the applicant shall use disturbed or low habitat value areas before using undisturbed or higher quality habitat areas, as determined by a qualified biologist. Prior to ground disturbing activities, sensitive resources, such as waterbodies, oak trees, special status plant populations, and natural communities, will be clearly marked and avoided.</p> <p>All aquatic features, including vegetated washes, creeks, drainages (ephemeral and perennial), and riparian areas, will be spanned by the 230-kV transmission and 12-kV distribution line where possible. If construction will occur within 200 feet of an aquatic feature, biological monitors will establish and maintain a minimum exclusionary buffer of 50 feet from the delineated extent of all jurisdictional wetland features. If the applicant cannot maintain the 50-foot exclusionary buffer, the applicant will submit best management practices (BMPs) to the CPUC for review and approval prior to construction. In addition, if the applicant is unable to maintain the 50-foot buffer, the applicant shall consult with USACE and CDFW regarding potential impacts to streams or wetlands.</p> <p>If nighttime lighting is necessary adjacent to aquatic areas, lighting shall be shielded away from these areas to prevent impacts on aquatic wildlife.</p>	<ul style="list-style-type: none"> • Ensure that the applicant protects sensitive resources. 	<ul style="list-style-type: none"> • Prior to and during construction and during operation.
<p>MM BR-2: Biological Monitoring. CPUC-approved, qualified biological monitors will be present during construction and restoration activities in areas where sensitive resources identified by a CPUC-approved biologist may be impacted by construction of the project. Biological monitors will be assigned to the project in areas of sensitive biological resources. The monitors will be responsible for ensuring that impacts on special status species, native vegetation, wildlife habitat, or unique resources will be avoided to the fullest extent possible. Where appropriate, monitors will flag the boundaries of areas where activities will need to be restricted in order to protect native plants and wildlife or special status species. Those restricted areas will be monitored to ensure their protection during construction. The applicant shall submit the biological monitors' daily monitoring reports and monthly biological monitoring reports to the CPUC, CDFW, and USFWS.</p>	<ul style="list-style-type: none"> • Ensure that the applicant has biological monitors present. 	<ul style="list-style-type: none"> • During construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>MM BR-3: Preconstruction Surveys.</p> <p>a. Preconstruction surveys will be conducted by CPUC-approved, qualified biologists according to standardized methods. Surveys will encompass all construction areas. Existing baseline vegetation data will be used during post-construction restoration efforts, as outlined in Section 7 of the SDG&E Subregional NCCP/HCP. Preconstruction surveys will take place for each discrete work area within 14 days of the start of ground disturbance, or if work has lapsed for longer than 14 days.</p> <p>b. Additionally, a CPUC-approved, qualified biologist will conduct preconstruction clearance sweeps for special status species at all access, staging, and work areas where suitable habitat is present within approximately 24 hours of construction and restoration activities each day.</p> <p>c. In addition to these preconstruction surveys, a CPUC-approved biologist will conduct protocol-level surveys for coastal California gnatcatcher and least Bell's vireo along the proposed 12-kV distribution line where surveys have not yet taken place. A CPUC-approved biologist will also perform protocol-level southwestern willow flycatcher and rare plant surveys throughout the entire project area, where suitable habitat exists.</p> <p>If a special status species is found at any time, the CPUC will be notified within 48 hours, and the CPUC will determine the need for additional consultation with the appropriate resource agency or agencies.</p>	<ul style="list-style-type: none"> • Ensure that the applicant conducts preconstruction surveys. 	<ul style="list-style-type: none"> • No more than 14 days prior to construction.
<p>MM BR-4: Limit Removal of Native Vegetation Communities and Trees. The removal of native vegetation and trees will be limited to the minimum practicable area required for construction of the project. To the extent feasible, grading, grubbing, graveling, or paving will only occur for permanent project components. Temporary staging areas will be used in such a way that it facilitates post-construction restoration, per Section 7 of the SDG&E Subregional NCCP/HCP. Drive-and-crush methods will be employed, with the exception of those areas where this method is not feasible for temporary staging areas for safety reasons and placement of temporary structures, such as construction trailers and drop tanks.</p>	<ul style="list-style-type: none"> • Ensure that the applicant minimizes removal of native vegetation and trees. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>MM BR-5: Avian Safe Building Standards. The applicant will design all transmission structures installed as part of the proposed project to be consistent with the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (APLIC 2006).</p>	<ul style="list-style-type: none"> • Ensure that the applicant implements avian safe building standards. 	<ul style="list-style-type: none"> • Prior to construction.
<p>MM BR-6: Migratory Birds and Raptors Impact Reduction Measures. The applicant will develop a Nesting Bird Management Plan in consultation with the USFWS, CDFW, and CPUC that outlines protective measures and BMPs that will be employed to prevent disturbance to active nests of both special status and Migratory Bird Treaty Act (MBTA)-protected bird species with the potential to occur in the project area. The Nesting Bird Management Plan will include the following components:</p> <ul style="list-style-type: none"> • Appropriate survey timing, extents, and methods, including dates of local breeding season when surveys must take place; monitoring and reporting protocol; protocol for determining whether a nest is active; and protocol for documenting, reporting, and protecting active nests within construction and restoration areas will be included in the Nesting Bird Management Plan. If preconstruction survey protocols exist for a special status avian species with a potential to be impacted by the project, the plan will outline the implementation of these protocols. The survey area will include the construction area, plus an additional distance large enough to accommodate the protective buffer of MBTA-protected bird species likely to occur in proximity to the construction area. The plan will also specify approved nest deterrent methods, inactive nest management, and state that project-related nest failures will be 	<ul style="list-style-type: none"> • Ensure that the applicant implements migratory bird impact reduction measures. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>reported to the USFWS and CDFW.</p> <ul style="list-style-type: none"> • Appropriate and effective buffer distances, including horizontal buffers from nests, horizontal buffers from territories, if appropriate, and vertical buffers for helicopters will be included. Buffers will not be based on generalized assumptions regarding all nesting birds, but will be specific to the site and species/guild and account for specific stage of nesting cycle and construction work type. During construction and restoration, a CPUC-approved avian biologist will implement the appropriate buffer distance in accordance with the plan, and a process for a reduction from the plan's nesting buffer distances will be specified. Buffer reductions for special status species and raptors shall be determined upon consultation with USFWS, CDFW, and the CPUC. Buffer reductions for common species must be approved by the CPUC-approved avian biologist and USFWS, CDFW, and CPUC will be notified. • Vertical buffers would be based on anticipated effects of rotor wash and noise for each class of helicopter (i.e. Light Duty, Medium Duty, and Heavy Duty). Surveys and monitoring of the active buffer areas will be completed by a CPUC-approved biologist before, during, and after helicopter use in the vicinity of active buffers and reported to the CPUC. • The Nesting Bird Management Plan will include the minimum requirements to become a CPUC-approved avian biologist and biological monitor for nesting birds, including education, experience in conducting biological surveys, and experience with specific birds in the project area. • The CPUC-approved biological monitor will halt work if it is determined that active nesting will be disturbed by construction or restoration activities until further direction or approval to work is obtained from the CPUC and/or appropriate wildlife agencies. • The Nesting Bird Management Plan will be submitted to the USFWS, CDFW, and CPUC for review and comment no more than six months prior to the start of construction, with the intent that the plan will be finalized no more than two months prior to the start of construction. The final plan will be implemented during construction and restoration activities. A Nesting Tracker will be maintained and updated weekly during the nesting bird season, and will be submitted to USFWS, CDFW, and CPUC on a monthly basis. This Nesting Tracker will contain data such as species, location, buffer, monitor name, and status of the nest. 		
<p>MM BR-7: Coastal Cactus Wren Avoidance.</p> <p>a. Preconstruction Surveys. CPUC-approved biologists will perform preconstruction surveys in potential coastal cactus wren habitat within 200 feet of each discrete work area and record the location and quality. Preconstruction surveys will take place within two weeks prior to the start of ground disturbance or when work has lapsed for longer than two weeks.</p> <p>b. Conservation. Should suitable coastal cactus wren habitat patches be identified in or within 200 feet of work areas, the areas will be avoided to the greatest extent possible during construction. Habitat includes, but is not limited to, mature cholla or prickly-pear cactus typically less than 1 meter in height, interspersed with California sagebrush, California buckwheat, and blue elderberry. Habitat patches may be as small as approximately 1 acre. Habitat patches located in close proximity to construction activities should be protected by physical barriers, such as rope or signage.</p>	<ul style="list-style-type: none"> • Ensure that the applicant implement coastal cactus avoidance measures. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>c. Habitat Restoration Plan for Coastal Cactus Wren Habitat. Prior to construction of the proposed project, and with the coordination and review of USFWS and CDFW, SDG&E will prepare a habitat restoration plan for coastal cactus wren habitat. Details of the restoration plan will be finalized pending consultation between the applicant, SDG&E, USFWS, and CDFW. The restoration plan will be prepared by a qualified botanist familiar with this vegetation association. The plan will include the following elements: planting/reseeding species mentioned above in correct ratios so as to be suitable for coastal cactus wren; monitoring plan and schedule, including duration and performance criteria; and any specific measures that will be required to ensure success of the restoration effort. Suitable habitat will be replaced at a 1:1 ratio, and if SDG&E chooses to implement the restoration effort outside the project area, it must be no more than 3 miles away from the project area.</p> <p>d. Take Avoidance. Should biologists identify nesting coastal cactus wrens at any time during construction, biologists will implement a buffer around the nest that sufficiently protects the nesting pair from disturbance caused by construction activities, as determined by the project-specific Nesting Bird Management Plan. The nest should be monitored regularly according to methods outlined in the Nesting Bird Management Plan, and the buffer must remain in place until construction is complete or the nest is no longer active.</p>		
<p>MM BR-8: Western Burrowing Owl Impacts Reduction Measures.</p> <p>a. Preconstruction Surveys for Burrowing Owls. Prior to ground disturbance, a CPUC-approved biologist will conduct preconstruction take-avoidance surveys for burrowing owls within 150 meters of project areas in suitable habitat no more than 14 days prior to ground-disturbing activities according to methods outlined in the CDFW’s 2012 (or most recent) Staff Report on Burrowing Owl Mitigation (CDFG 2012). Surveys will provide data on whether burrowing owls occupy the site and, if so, whether the owls are actively nesting.</p> <p>b. Burrowing Owl Impact Avoidance. If pre-construction take-avoidance surveys detect the presence of any active burrowing owl burrows during breeding season, the burrows will be avoided, and construction activities within 150 meters will be enclosed by construction fencing. Buffer sizes are outlined in the CDFW’s Staff Report on Burrowing Owl Mitigation. Active burrowing owl burrows should be monitored regularly according to methods outlined in the Nesting Bird Management Plan, and buffers should remain in place until the nest fledges or fails.</p> <p>c. Eviction. If, in consultation with the CDFW, it is determined that project activities require removal of occupied burrows, or burrows potentially occupied by burrowing owls, eviction and burrow closure may be required to ensure against “take” of owls or nests. However, if eviction is required, it will occur only after consulting with CDFW and CDFW approval of a Burrowing Owl Exclusion Plan. Monitoring will be conducted to ensure take is avoided during eviction procedures. Owls may not be evicted or captured without prior authorization from the CDFW.</p>	<ul style="list-style-type: none"> • Ensure that the applicant implements burrowing owl impact reduction measures. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>MM BR-9: Invasive Plant Control Measures. The applicant will use standard BMPs to avoid the introduction and spread of controllable invasive plant species such as tamarisk (<i>Tamarix</i> sp.) and giant reed (<i>Arundo donax</i>) during construction of the project. Proper handling during construction will include the following:</p> <ul style="list-style-type: none"> • All vehicles and equipment will be cleaned prior to arrival at the work site. • Crews, with construction inspector oversight, will ensure that vehicles and equipment are free of soil and debris capable of transporting noxious weed seeds, roots, or rhizomes before the vehicles and equipment are allowed use of access roads. • Straw or hay bales used for sediment barrier installations or mulch distribution will be obtained from state-cleared sources that are free of invasive weeds. <p>The applicant will develop an Invasive Plant Management Plan to outline the methods that will be employed to prevent the spread of invasive plants on site. This plan will be submitted to the CDFW and CPUC for review and comment no more than six months prior to the start of construction, with the intent to produce a final draft of the plan no later than two months prior to the start of construction.</p>	<ul style="list-style-type: none"> • Ensure that the applicant implements invasive plant control measures. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>MM BR-10: Mitigation Plan Development. To ensure that the project is consistent with the SDG&E Subregional NCCP/HCP, the applicant will prepare and implement a Mitigation Plan for the project. The Mitigation Plan will:</p> <ul style="list-style-type: none"> • Detail a consultation process in accordance with Section 6.2.1 of SDG&E's NCCP/HCP. Alternatively, an updated process and timeline can be developed as allowed by both USFWS and CDFW. • Require SDG&E to provide the CPUC with written confirmation from USFWS and CDFW that the consultation process has been carried out to the satisfaction of the agency and is consistent with the SDG&E Subregional NCCP/HCP. • Include a summary of the policies and procedures in the SDG&E Subregional NCCP/HCP that are relevant to other HCPs/NCCPs, conservation plans, and public or private conservation or preserve areas, including, but not limited to: <ul style="list-style-type: none"> – Operational protocols used in sensitive habitat areas; – Mitigation for temporary and permanent impacts, including habitat enhancement and mitigation credits; – Coordination and consultation procedures with the USFWS and CDFW; – Definition of preserve area according to the SDG&E Subregional NCCP/HCP; – Identification and mapping of areas that may qualify as a preserve area within 100 feet of any project component; and – A review of locations where there may be potential conflicts among conservation plans. 	<ul style="list-style-type: none"> • Ensure that the applicant develops and implements a mitigation plan. 	<ul style="list-style-type: none"> • Prior to and during construction.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<ul style="list-style-type: none"> This plan will be submitted to the USFWS, CDFW, and CPUC for review and comment with the intent to produce a final draft of the plan, approved by the CPUC, no less than two months prior to the start of construction. Implementation of the Mitigation Plan, excluding any restoration or other physical habitat improvements that are required as a result of the agency consultation, will be implemented prior to the start of construction. 		
Cultural Resources		
<p>APM CUL-1: Worker Training for Cultural Resources. Prior to the initiation of construction or ground-disturbing activities, all SDG&E, contractor, and subcontractor personnel would receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including the potential for exposing subsurface cultural resources and paleontological resources and to recognize possible buried resources. Training would inform all construction personnel of the anticipated procedures that would be followed upon the discovery or suspected discovery of archaeological materials, including Native American remains, and their treatment, as well as of paleontological resources.</p>	<ul style="list-style-type: none"> Ensure that the applicant implements a worker training for cultural resources. 	<ul style="list-style-type: none"> Prior to and during construction and restoration.
<p>APM CUL-2: Cultural Resource Monitoring. A qualified archaeologist would attend preconstruction meetings, as needed, and a qualified archaeological monitor would monitor ground disturbing activities in the vicinity of all known cultural resources within the proposed project area. The requirements for archaeological monitoring would be noted on the construction plans. The archaeologist's duties would include monitoring, evaluation of any finds, analysis of collected materials, and preparation of a monitoring results report conforming to Archaeological Resource Management Reports guidelines.</p>	<ul style="list-style-type: none"> Ensure that the applicant has a cultural monitor present. 	<ul style="list-style-type: none"> During construction and restoration.
<p>APM CUL-3: Avoid Known Cultural Resources. Known cultural resources that can be avoided would be demarcated as Environmentally Sensitive Areas. Construction crews would be instructed to avoid disturbance of these areas.</p>	<ul style="list-style-type: none"> Ensure that the applicant demarcates known cultural resources. 	<ul style="list-style-type: none"> Prior to and during construction.
<p>APM CUL-4: Unanticipated Cultural Finds. In the event that cultural resources are discovered, the archaeologist would have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist would contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist, would determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program would be prepared and carried out to mitigate impacts.</p>	<ul style="list-style-type: none"> Ensure that the applicant follows protocols during an unanticipated cultural find. 	<ul style="list-style-type: none"> During construction and restoration.
<p>APM CUL-5: Curate Cultural Discoveries. All collected cultural remains would be cataloged and permanently curated with an appropriate institution. All artifacts would be analyzed to identify function and chronology as they relate to the history of the area. Faunal material would be identified as to species.</p>	<ul style="list-style-type: none"> Ensure that the applicant follows protocols during an unanticipated cultural find. 	<ul style="list-style-type: none"> During construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>APM CUL-6: Archeological Monitoring Results Report. An archaeological monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, would be prepared and submitted to SDG&E's Cultural Resource Specialist, SDG&E's Environmental Project Manager, and the CPUC. Any new cultural sites or features encountered would be recorded with the <i>SCCIC</i> or <i>SCIC</i>.</p>	<ul style="list-style-type: none"> • Ensure that the applicant follows protocols during a new cultural find. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM CUL-7: Monitoring by Native Americans. Native American monitoring may be implemented if transmission line construction has the potential to impact identified and mapped traditional locations and places. The role of the Native American monitor would be to represent tribal concerns and communicate with the tribal council. Appropriate representatives would be identified based on the location of the identified traditional location or place.</p>	<ul style="list-style-type: none"> • Ensure that the applicant has a Native American monitor present. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM CUL-8: Paleontological Monitoring. A paleontological monitor would work under the direction of a qualified project paleontologist and would be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits with high paleontological resource sensitivity. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.</p>	<ul style="list-style-type: none"> • Ensure that the applicant has a paleontological monitor present. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM CUL-9: Discovery of Fossils. In the event that fossils are encountered, the paleontological monitor would have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. The paleontologist would contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The paleontologist, in consultation with SDG&E's Cultural Resource Specialist, would determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on site. When fossils are discovered, the paleontologist (or paleontological monitor) would recover them along with pertinent stratigraphic data. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk sedimentary matrix samples for off-site wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage would be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections, and a paleontological monitoring report would be written.</p>	<ul style="list-style-type: none"> • Ensure that the applicant follows protocols during the discovery of a fossil. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM CUL-10: Building of Distinction Requirements. The applicant proposes to take the following steps found in Council Policy 602, which applies to the alteration, modification, or demolition of "significant" structures:</p> <ol style="list-style-type: none"> 1. Advertise, for a period of three months, that the former utility structure may be available for relocation. 2. Prepare a photographic record of the former utility structure. Photographs will include: <ol style="list-style-type: none"> a. Each elevation; b. Close-ups of any unusual or unique architectural features; and c. Views of the structure from a distance. <p>In addition, measured drawings or plans will be included.</p>	<ul style="list-style-type: none"> • Ensure that the applicant implements the steps for Council Policy 602. 	<ul style="list-style-type: none"> • Prior to construction.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>If not relocated, allow the removal of any architectural elements of the former utility structure for a period of two weeks at the expense of any local historic interest group or organization removing the element.</p>		
<p>MM CUL-1: Supplemental Worker Training for Cultural Resource. As a supplement to APM CUL-1, this measure requires the applicant to incorporate the following specific topics into the pre-construction cultural resource training for all on-site personnel:</p> <ul style="list-style-type: none"> • Describe the role of cultural and paleontological resources monitors and the role of Native American monitors; • Describe the types of cultural and paleontological resources that may be found in the project area; • Describe the potential for human remains to be discovered during ground disturbing activities; and • Describe the penalties associated for breaking the laws relevant to the protection of cultural and paleontological resources. <p>The cultural and paleontological resources training components will be developed by a CPUC-approved cultural resources consultant (see MM CUL-3) and CPUC-approved paleontological consultant (see MM CUL-6). The applicant shall provide a copy of the training material and trainee sign-in sheets to the CPUC prior to construction.</p>	<ul style="list-style-type: none"> • Ensure that the applicant includes required topics in the worker training for cultural resources. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.
<p>MM CUL-2: Construction Monitoring Plan. Prior to construction, the applicant will submit a Construction Monitoring Plan for the proposed project, prepared by the approved consultant(s) (MM CUL-3) for review and approval by the CPUC. The final Construction Monitoring Plan shall be implemented, as specified, throughout construction and restoration. The Construction Monitoring Plan shall, at a minimum:</p> <ul style="list-style-type: none"> • Identify areas where native soil will be disturbed by construction or restoration of the proposed project or where known cultural resources (APM CUL-2) occur in the project area as areas that will be monitored by a CPUC-approved archaeologist. • Confirm that archeological monitoring will be performed during all ground disturbing activities along Segment 1a of the 230-kV transmission line, Segment A of the 12-kV distribution line, and within the proposed San Juan Capistrano Substation to prevent potential damage to buried Juaneño/Acjachemen deposits. 	<ul style="list-style-type: none"> • Ensure that the applicant prepares and implements a construction monitoring plan. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.
<ul style="list-style-type: none"> • Describe monitoring procedures that will take place for each project component area, as required. • Describe how often monitoring will occur (e.g., full time, part time, spot checking). • Describe monitoring reporting requirements (APM CUL-6). • Describe the Testing and Evaluation Plans and Data Recovery Plans (APM CUL-4 and APM CUL-5). • Include contact information for those to be notified or reported to. 		

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>MM CUL-3: Qualified Cultural Resources Consultants. The applicant will retain the services of qualified professional (CPUC-approved) cultural resources consultants who meet or exceed the United States Secretary of the Interior qualification standards for professional archaeologists published in 36 Code of Federal Regulations (CFR) 61 and who have experience working in the jurisdictions traversed by components of the proposed project sufficient to identify the full range of cultural resources that may be found in the proposed project area. The consultants will also have knowledge regarding the cultural history of the proposed project area. The resumes and supporting information for each cultural resources consultant will be submitted to the CPUC for approval. At least one qualified cultural resources consultant must be approved by the CPUC prior to start of construction.</p>	<ul style="list-style-type: none"> • Ensure that the applicant retains a qualified cultural resources consultant. 	<ul style="list-style-type: none"> • Prior to construction.
<p>MM CUL-4: Native American Consultation and Participation Planning. As a supplement to APM CUL-7, prior to construction, the applicant will provide evidence to the CPUC that tribes requesting consultation with the applicant regarding the project design and impacts on cultural resources were consulted. In addition, the applicant will provide evidence to the CPUC that tribes that express interest in the project during any phase (i.e., project application through end of construction and restoration) have been given the opportunity to participate in additional cultural resources surveys (MM CUL-5) and/or cultural resources monitoring when performed by a CPUC-approved cultural resources consultant (MM CUL-3).</p> <p>To outline the expected duties and responsibilities of all parties involved, the applicant and a CPUC-approved cultural resources consultant will submit a Native American Participation Plan prior to construction. The final Native American Participation Plan shall be implemented, as specified, throughout construction and restoration. Tribes that have expressed interest in the project prior to construction will be given the opportunity to participate in development of the plan. At a minimum, the plan will specify that:</p> <ul style="list-style-type: none"> • Native American monitors, if approved by a tribe, are expected to participate in worker environmental awareness and health and safety training and follow all health and safety protocols. • Attendance by Native American monitors during construction and restoration of the proposed project is at the discretion of the tribe, and the absence of a Native American monitor, should the tribes choose to forgo monitoring for some reason, will not delay work. • The Native American monitors will have the ability to notify a CPUC-approved cultural resources consultant who has the authority to temporarily stop work (MM CUL-3) if they find a cultural resource that may require recordation and evaluation. • Interpretation of a find will be requested from Native American monitors involved with the discovery, evaluation, or data recovery of unanticipated finds for inclusion in the final Cultural Resources Report. • The tribes involved with preparation of the Native American Participation Plan will be given the opportunity to participate in the development of Testing and Evaluation Plans and Data Recovery Plans (MM CUL-2) if the development of these plans is required. 	<ul style="list-style-type: none"> • Ensure that the applicant prepares and implements a Native American consultation and participation plan. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<ul style="list-style-type: none"> Native American monitors approved by a tribe for monitoring work on the project will be notified 30 days prior to start of construction of the various project components. The Native American monitors will be compensated for their time. If more than one tribal group wishes to participate in the monitoring, SDG&E will work out an agreement for sharing of monitoring compensation. Define a process to inform tribes of completed cultural surveys and to provide a copy of the survey to interested tribes. 		
<p>MM CUL-5: Additional Cultural Resources Surveys. Prior to issuance of the notice to proceed, the applicant will ensure that qualified archaeological consultants, as specified in MM CUL-3, will conduct intensive-level cultural resources surveys (transects no greater than 10 meters) for all areas to be disturbed that have not already been surveyed for cultural resources and that, prior to the project, had been undisturbed. Surveys shall also include a California Historic Resources Information System search and Native American Heritage Commission Sacred Lands file database search. Reports that specify the research design, methods, and survey results will be submitted to the CPUC for review and must be accepted by the CPUC prior to the start of ground disturbance in the previously unsurveyed areas.</p>	<ul style="list-style-type: none"> Ensure that the applicant conducts cultural resources surveys. 	<ul style="list-style-type: none"> Prior to construction.
<p>MM CUL-6: Qualified Paleontological Consultants. The applicant will retain the services of qualified professional paleontological consultants with knowledge of the local paleontology and the minimum levels of experience and expertise, as defined by the Society of Vertebrate Paleontology’s Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010). The resumes and supporting information for each paleontological consultant will be submitted to the CPUC for approval. At least one qualified paleontological consultant must be approved by the CPUC prior to start of construction.</p>	<ul style="list-style-type: none"> Ensure that the applicant retains a qualified paleontological consultant. 	<ul style="list-style-type: none"> Prior to construction.
<p>MM CUL-7: Paleontological Monitoring and Treatment Plan. Prior to start of construction, the applicant will submit a Paleontological Monitoring and Treatment Plan for the proposed project that is prepared by a CPUC-approved paleontological consultant (MM CUL-6) to the CPUC for approval. This plan will be adapted from the Society of Vertebrate Paleontology’s Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) to specifically address each project component. In addition, the plan will, at a minimum:</p> <ul style="list-style-type: none"> Describe the criteria used to determine whether an encountered resource is significant and if it should be avoided or recovered. Identify construction and restoration impact areas of moderate to high sensitivity for encountering paleontological resources and the shallowest depths at which those resources may be encountered. Describe methods of recovery, preparation, and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. Briefly identify and describe the types of paleontological resources that may be encountered. Describe monitoring procedures that will take place for each component of the project that requires monitoring. 	<ul style="list-style-type: none"> Ensure that the applicant prepares and implements a paleontological monitoring and treatment plan. 	<ul style="list-style-type: none"> Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<ul style="list-style-type: none"> • Describe how often monitoring will occur (e.g., full time, part time, spot checking), as well as the circumstances under which monitoring will be increased or decreased. • Describe the circumstances that will result in the halting of work. • Describe the procedures for halting work and for notifying construction and restoration crews when work is to be halted and to be resumed. • Include testing and evaluation procedures for resources encountered. • Describe procedures for curating any collected materials. • Outline coordination strategies to ensure that the CPUC-approved paleontological consultant (MM CUL-6) conducts full-time monitoring of all grading activities in sediments determined to have a moderate to high sensitivity. • Include reporting procedures. • Include contact information for those to be notified or reported to. <p>For sediments of low or undetermined sensitivity, the Paleontological Monitoring and Treatment Plan will specify the level of monitoring necessary. Sediments with no sensitivity will not require paleontological monitoring. The plan will define specific conditions in which monitoring of earthwork activities could be reduced and/or depth criteria established to trigger monitoring. These factors will be defined by an approved (MM CUL-6) paleontologist.</p>		
<p>MM CUL-8: Preservation of Former Utility Structure at Capistrano Substation. The applicant shall incorporate the following design specifications at Capistrano Substation and features shown in Appendix S of this EIR with the purpose to rehabilitate the west wing of the former utility structure at Capistrano Substation per the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings:</p> <ul style="list-style-type: none"> • Replacement of the current landscaping with landscaping that returns the existing utility structure’s setting to an earlier appearance. • Construction of an approximately 5-foot-tall retaining wall parallel to the northern and eastern walls of the retained west wing. • Construction of a masonry wall approximately 10 feet tall on the inside of the western perimeter of the substation. When viewed from the exterior, the masonry would vary from 12 to 15 feet in height due to grading behind the substation wall. The northern and southern perimeter walls would remain at approximately 10 feet in height. • The existing utility structure shall remain approximately 4 inches from the western perimeter wall. 	<ul style="list-style-type: none"> • Ensure that the applicant incorporates design specifications pursuant to the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. 	<ul style="list-style-type: none"> • Prior to and during construction.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<ul style="list-style-type: none"> • The southern and western walls of the retained portion of the existing substation shall be located outside of the secured substation facility and will be visible from Camino Capistrano. The northern and eastern walls of the existing utility structure shall effectively act as part of the substation security wall. • Installation of new steel doors to replace the doors in the southern, eastern, and northern walls of the existing utility structure. The northern and eastern doors will serve as part of the security wall. • Construction of a driveway from the main substation access to the structure's southern door. • Set back the southern driveway vehicle access gate by approximately 80 feet from Camino Capistrano. • Set back the northern driveway access gate by approximately 35 feet from Camino Capistrano. • The northern and southern vehicular access gate shall be approximately 30 feet wide. Each pair of gates will be made of black wrought iron and be approximately 15 feet in width. • Grading and the phased site development would be similar to that of the Proposed Project Substation. <p>Modifications to the existing utility structure shall include:</p> <ul style="list-style-type: none"> • East Wing Demolition: Retain 12 inches of roof and walls where the east wing intersects the west wing of the existing structure. This will allow the remaining portion of the roof and wall visually to read as a "ghost" of the east wing once it is removed. • West Wing Rehabilitation: <ul style="list-style-type: none"> - Western Wall: the exterior wall, concrete wall iron jacking, and windows will be repaired. Security bars will be installed on all interior windows. - Northern Wall: Deteriorated, non-original, sidelights, and transom windows shall be replaced to match the original. Those that are replaced shall be made from steel rather than wood for increased security. Door assembly does not require glazing, but shall be constructed exclusively of steel following the original pattern. This wall and replacement door will only be accessible from the interior. - Eastern Wall: The interior door shall be replaced with a new exterior door that matches the original but is designed for exposure to the elements. Glazing is not required for the door or existing windows, but design should follow the original pattern. The eastern wall, window, and door will only be accessible from the interior. - Southern Wall: Deteriorated, non-original, sidelights, and transom windows shall be replaced to match the original. Those that are replaced shall be made from steel rather than wood for increased security. Door assembly does not require glazing, but shall be constructed exclusively of steel following the original pattern. Due to visibility from the street, the door should include translucent wire glass at the transom. Where glazing occurs at the transom, security bars shall be installed on the interior. 		

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<ul style="list-style-type: none"> - Interior Window Sills: Where water damage has occurred, windows sills shall be repaired. - Interior Crane: The movable crane shall be retained. - Lighting: A lighting plan shall be developed and implemented. It will include manually operating exterior wall sconces on the north and south walls. <p>The applicant shall prepare and implement a historic architect monitoring plan. The plan shall include, but shall not be limited to, the following information:</p> <ul style="list-style-type: none"> • Qualifications of the historic architect monitor (must meet the Secretary of the Interior’s Professional Qualifications Standards); • Activities that shall be monitored by the historic architect monitor; • Authority given to the historic architect monitor to halt construction on the former utility structure in order to prevent damage to the structure; • Procedures that the historic architect monitor will follow to halt construction and the procedures to restart construction; and • Reporting procedures for the historic architect. <p>The historic monitoring plan shall be submitted to the CPUC for approval at least six weeks prior to start of construction on the former utility structure.</p> <ul style="list-style-type: none"> • The applicant shall also prepare a Historic American Building Survey (HABS) photographic documentation for the utility structure before the east wing is removed. The applicant shall provide the HABS documentation to the CPUC at least six weeks prior to start of construction on the former utility structure. 		
Geology, Soils, and Mineral Resources		
<p>APM GEO-1: Conduct an Engineering-level Geotechnical Investigation for Liquefaction Potential and Implement Recommended Design Measures. A geologic hazard evaluation was conducted by URS in 2008 to evaluate the pole locations along the Proposed Project transmission line route for the presence of geologic hazards that may affect the new towers and poles. The geologic hazard evaluation indicated the presence of geologic conditions potentially susceptible to liquefaction at the locations of proposed Pole Nos. 8, 9 and 10. Prior to construction, an engineering-level geotechnical investigation would be performed at these locations under the supervision of a California Certified Engineering Geologist or California licensed Geotechnical Engineer to further evaluate the liquefaction potential at each of these pole locations and to develop design measures to minimize the potential for damage to Proposed Project structures in the event of strong ground shaking. Recommendations of the geotechnical investigation would be incorporated into the final design for these structures. These recommendations would include augmented grading practices, expanded erosion control measures and deeper foundations.</p>	<ul style="list-style-type: none"> • Ensure that the applicant conducts and incorporates geotechnical investigation into project design. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>APM GEO-2 Conduct an Engineering-level Geotechnical Survey for Landslides and Implement Recommended Design Measures to Ensure Slope Stability is not Impacted and the Potential for Damage to Protect Structures is Minimized. A geologic hazard evaluation was conducted by URS in 2008 to evaluate the structure locations along the Proposed Project transmission line route for the presence of geologic hazards that may affect the new towers and poles. The geotechnical hazard evaluation identified areas with recent and ancient landslides along the Proposed Project transmission line route due to unstable slope conditions in portions of both the Capistrano and Monterey formations. Prior to construction, an engineering-level geotechnical investigation would be performed at each pole location along the transmission line route that is in or near a mapped landslide or other unstable slope condition. This investigation would be performed under the supervision of a California Certified Engineering Geologist or California licensed Geotechnical Engineer, and would identify protection measures to be designed and implemented to ensure that the Proposed Project does not materially increase slope stability risks and to minimize potential for damage to Proposed Project structures in the event of landslides. These recommendations would include augmented grading practices, expanded erosion control measures and deeper foundations.</p>	<ul style="list-style-type: none"> • Ensure that the applicant conducts and incorporates geotechnical investigation into project design. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.
<p>MM GEO-1: Conduct an Engineering-level Geotechnical Investigation for Liquefaction Potential and Implement Recommended Design Measures. Prior to construction, an engineering-level geotechnical investigation shall be performed at Pole Nos. 1a through 5a under the supervision of a California Certified Engineering Geologist or California licensed Geotechnical Engineer to further evaluate the liquefaction potential at each of these pole locations and to develop design measures to minimize the potential for damage to proposed project structures in the event of strong ground shaking. Recommendations of the geotechnical investigation shall be incorporated into the final design for these structures.</p>	<ul style="list-style-type: none"> • Ensure that the applicant conducts and incorporates geotechnical investigation into project design. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.
Greenhouse Gases		
<p>APM GHG-1: Operations Emissions Controls. SDG&E developed this APM to ensure that sulfur hexafluoride is properly managed. SDG&E would implement its existing sulfur hexafluoride mitigation strategies during the operation and maintenance of sulfur hexafluoride-containing equipment installed as part of the proposed project. These strategies include:</p> <ul style="list-style-type: none"> • Recording company-wide sulfur hexafluoride purchases, use, and emissions rates to comply with the USEPA's requirements for Electrical Transmission and Distribution Equipment Use (Mandatory Reporting of Greenhouse Gases, 40 CFR Part 98, Subpart DD) and the CARB's Regulation for Reducing Sulfur Hexafluoride Emissions from gas-insulated switchgear (Code Regs. Tit. 17, § 95350-95359); • Implementing a sulfur hexafluoride recycling program; • Training employees on the safety and proper handling of sulfur hexafluoride; • Continuing to report GHG emissions with the Climate Registry; and 	<ul style="list-style-type: none"> • Ensure that the applicant implements SF6 mitigation strategies. 	<ul style="list-style-type: none"> • During operation.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<ul style="list-style-type: none"> Implementing SDG&E’s sulfur hexafluoride leak detection and repair program. This program includes monthly visual inspections of each GCB, which includes checking pressure levels within the breaker and recording these readings in SDG&E’s Substation Management System. During the installation or major overhaul of any GCB, the unit is tested over a 24-hour period to ensure no leaks are present. Minor overhauls of each GCB are conducted every 36 to 40 months to check overall equipment health. This process includes checking gas pressure, moisture ingress, and sulfur hexafluoride decomposition. If the GCB fails any of these checks, the unit is checked for leaks and repaired. In addition, all GCBs are equipped with a gas-monitoring device and alarm that automatically alerts SDG&E’s Grid Operations Center. If gas pressure approaches minimum operating levels, an alarm is immediately reported to SDG&E’s Substation Construction and Maintenance Department. The GCB is usually inspected for leaks within 24 hours of such an alarm. SDG&E’s leak detection practice includes the following three methodologies: <ul style="list-style-type: none"> – Spraying a leak-detection agent onto common leak points—including O rings, gaskets, and fittings; – Using a field-monitoring device (sniffer) to detect the presence of sulfur hexafluoride gas; and – Using a laser-detection camera to detect the presence of sulfur hexafluoride gas when the above two methods are unsuccessful in finding a leak. 		
Hazards and Hazardous Materials		
<p>APM HAZ-1: Conduct Environmental Site Assessment. Prior to the start of earth disturbance activities at the upper yard portion of the existing Capistrano Substation site, a Phase II Environmental Site Assessment (soil sampling) would be performed and, if any contaminated soil is found to be present, contaminated soils would be managed, removed, transported, and disposed of in accordance with all applicable laws, ordinances and safety standards. The Environmental Site Assessment would be completed pursuant to American Society for Testing and Materials International standard requirements.</p>	<ul style="list-style-type: none"> Ensure that the applicant conducts a Phase II Environmental Site Assessment. 	<ul style="list-style-type: none"> Prior to construction.
<p>APM HAZ-2: Hazardous Materials and Waste Management Plan. The applicant would prepare a project-specific Hazardous Materials and Waste Management Plan (HMWMP) following final CPUC project approval and be submitted to the CPUC prior to issuance of any applicable Notice to Proceed for the project. Handling, recycling, and waste transportation, and temporary waste storage procedures would be outlined within the HMWMP. The project-specific HMWMP would include site-specific procedures and would be developed based on SDG&E standards and applicable hazardous materials laws, standards, and regulations. Sampling and cleanup levels would be established in the HMWMP as follows:</p> <ul style="list-style-type: none"> Confirmation samples would be taken to ensure that site conditions are consistent with current and proposed land uses (i.e., electric substation); Confirmation samples would be taken, utilizing industry standard testing methods (e.g. EPA Methods), for appropriate site specific contaminants of concern; Final sampling procedures would be included within the project-specific HMWMP; and 	<ul style="list-style-type: none"> Ensure that the applicant prepares and implements a hazardous materials and waste management plan. 	<ul style="list-style-type: none"> Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<ul style="list-style-type: none"> Final cleanup levels would be identified in the HMWMP and be consistent with acceptable levels for Commercial Industrial land uses. <p>Plans for the unanticipated discovery of contaminated soil and/or groundwater during construction would be included in the HMWMP, including:</p> <ul style="list-style-type: none"> Procedures in response to the discovery of contaminated soil or groundwater, including those for stopping work, securing the contaminated area, preventing the spread of contamination, and appropriate waste management (testing, profiling, shipping disposal); Training requirements for construction workers performing excavation activities; Dewatering procedures; and Procedures for notifying SDG&E and agency personnel in the event of the discovery of contaminated soil and/or groundwater. <p>The applicant's outline of environmental procedures for management of the following would be addressed in the HMWMP:</p> <ul style="list-style-type: none"> Asbestos Management; Hazardous Materials Transportation Security Plans; Hazardous Materials and Waste Management; Hazardous Material and Waste Shipping; Hazardous Waste Minimization Plans; and Field Guidelines for Emergency Incidents. <p>Soil sampling and building materials sampling results from applicable Environmental Site Assessments would be applied to development of the HMWMP.</p>		
<p>APM HAZ-3: Personal Protection Equipment. Specialized crews would be utilized to conduct any remediation (safe removal of contaminants) at the Capistrano Substation site prior to actual construction of the proposed project commencing. Proper personal protection equipment would be utilized by all remediation workers that may come into contact with known contaminated soil or hazardous building materials. Personal protection equipment would be determined based upon the nature of the contamination present at any given portion of the substation site and would comply with all applicable CalOSHA standards.</p>	<ul style="list-style-type: none"> Ensure that the applicant has workers wear personal protection equipment during work with hazardous materials or waste. 	<ul style="list-style-type: none"> During construction and restoration
<p>APM HAZ-5: Recycling and Reuse. It is SDG&E's practice to reuse or recycle all old structures/poles, materials, and components following the retirement of substations, transmission lines, and structures/poles. Whatever cannot be reused or recycled is disposed of at an appropriate facility pursuant to all applicable laws.</p>	<ul style="list-style-type: none"> Ensure that the applicant recycles materials, as feasible. 	<ul style="list-style-type: none"> During construction and restoration.
<p>APM HAZ-6: Fire Control. Construction restrictions would occur during times of high fire threat such as Red Flag Warnings issued by the National Weather Service or other severe fire weather conditions as identified by</p>	<ul style="list-style-type: none"> Ensure that the applicant implements fire control measures. 	<ul style="list-style-type: none"> During construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>SDG&E.</p> <p>Consistent with SDG&E's Electric Standard Practice 113.1 and the project-specific fire plan, prior to starting construction activities, SDG&E would clear dead and decaying vegetation from proposed project work areas where personnel are active or where equipment is in use or being stored within ROWs, staging areas, stringing sites, and access roads. Cleared dead and decaying vegetation would either be removed or chipped and spread on site.</p> <p>The project-specific fire plan would requirements for equipping diesel and gasoline operated engines with spark arrestors, carrying emergency fire suppression equipment, furnishing a water truck on or immediately adjacent to the proposed project work area, restricting smoking and vehicle idling, construction restrictions during Red Flag Warning periods (as applicable); and conducting pre-activity tailgate meetings that include fire safety discussions.</p>		
<p>MM HAZ-1: Hazardous Substances Contamination Prevention Plan. Prior to construction, the applicant shall prepare and implement a Hazardous Substances Contamination Prevention Plan supplementing the Hazardous Material Business Plan to prevent the release of hazardous materials and hazardous waste. The plan will include the following requirements and procedures:</p> <ul style="list-style-type: none"> • Training requirements for construction workers in appropriate work practices, including spill prevention and response measures. Additional training requirements for those performing excavation activities shall be required and shall include training on types of contamination (e.g., petroleum hydrocarbons, lead, asbestos, and <i>hazardous materials</i> (as defined by the California Health and Safety Code) and identifying potentially hazardous contamination (e.g., stained or discolored soil and odor). • Contain all hazardous materials at work sites and properly dispose of all such materials. <ul style="list-style-type: none"> – Hazardous materials shall be stored on pallets within fenced and secured areas and protected from exposure to weather and further contamination. – Fuels and lubricants shall be stored only at designated staging areas. • Maintain hazardous material spill kits for small spills at all active work sites and staging areas. Thoroughly clean up all spills as soon as they occur. • Store sorbent and barrier materials at all construction staging areas, including staging areas used during activities for decommissioning. Sorbent and barrier materials will be used to contain runoff from contaminated areas and from accidental releases of oil or other potentially hazardous materials to prevent the runoff from entering the storm drainage system. • Perform all routine equipment maintenance at a shop or at the staging area and recover and dispose of wastes in an appropriate manner. • Monitor and remove any vehicles with chronic or continuous leaks from use and complete repairs before returning them to operation. • Store shovels and drums at the staging areas. If small quantities of soil become contaminated, use shovels 	<ul style="list-style-type: none"> • Ensure that the applicant prepares and implements a hazardous materials contamination prevention plan. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>to collect the soil and store in drums before proper off-site disposal. Large quantities of contaminated soil may be collected using heavy equipment and stored in drums or other suitable containers prior to disposal. Should contamination occur adjacent to staging areas because of runoff, shovels and/or heavy equipment shall be used to collect the contaminated material.</p> <ul style="list-style-type: none"> • Procedures for transporting, shipping, and disposal of hazardous waste. • Procedures for managing asbestos containing material. • Procedures for notifying applicant and agency personnel in the event of the discovery of contaminated soil and/or groundwater. Contact information for federal, regional, and local agencies, the applicant's environmental coordinator(s) responsible for the cleanup of contaminated soil or groundwater, and licensed disposal facilities and haulers. • Procedures for dewatering, including storage, testing, treatment, and disposal requirements and dewatering BMPs with reference to the applicant's Stormwater Pollution Prevention Plan (SWPPP). <p>This plan will be submitted to the CPUC for review and approval 30 days prior to the start of project construction.</p>		
<p>MM HAZ-2: Contaminated Materials from MCB Camp Pendleton. Excavation, grading, or removal of any materials within MCB Camp Pendleton boundaries shall be accomplished in accordance with EPA Best Management Practices for Outdoor Shooting Ranges (EPA-902-B-01-001), RCRA, the Clean Water Act, 40 CFR 260 (Federal Hazardous Waste Regulations), and California Title 22 (California Hazardous Waste Regulations). All work shall be accomplished with every effort to prevent the spread of any potential contamination or release of any potential existing contaminants to the environment in accordance with all federal, state, and local laws, regulations, and instructions. Prior to the removal of any soil or wood and construction debris that has been used in live fire training and received impact from rounds, the soil or debris shall be sampled for appropriate hazardous materials in accordance with all federal, state, and local laws, regulations, and instructions. Also, prior to the removal of any wood and construction debris that has been used in live fire training and has received impact from rounds, the debris should be sampled for lead and other constituents. If the soil, wood, or debris is determined to be hazardous waste, it will be handled and disposed of in accordance with applicable hazardous waste regulations. All hazardous waste manifests shall be signed by the Hazardous Waste Branch, AC/S Environmental Security. Solid lead or copper removed from the base shall be recycled in accordance with the base Qualified Recycling Program regulations.</p>	<ul style="list-style-type: none"> • Ensure that the applicant handles hazardous materials from MCB Camp Pendleton properly. 	<ul style="list-style-type: none"> • During construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>MM HAZ-3: Worker Safety Training. As part of the worker environmental awareness program, the applicant will prepare a safety training module, in coordination with an appropriate representative from MCB Camp Pendleton, to inform all on-site personnel of the active military training activities occurring within MCB Camp Pendleton and the potential hazards associated with working at Talega Substation. The worker environmental awareness program shall include training on how to identify unexploded ordnance and what procedures shall be followed if potential unexploded ordnance is identified, including the "Three R's" method: Recognize, immediately Retreat, and Report to the Provost Marshal's Office at (760) 725-3888 or dial 911 immediately. The applicant shall provide a copy of the training material and trainee sign-in sheets to the CPUC prior to construction.</p>	<ul style="list-style-type: none"> • Ensure that the applicant implements a worker training for hazardous materials. 	<ul style="list-style-type: none"> • Prior to and during construction.
<p>MM HAZ-4: Fire Prevention and Emergency Response Plan. The applicant will develop and implement a Fire Prevention and Emergency Response Plan. This plan, and a record of contact and coordination with the Orange County Fire Authority (OCFA), will be submitted to the CPUC for review and approval 30 days prior to the start of construction of the proposed project. The plan will describe fire prevention and response practices that the applicant will implement during construction of the proposed project to minimize the risk of fire and, in the case of fire, provide for immediate suppression and notification. The plan will include:</p> <ul style="list-style-type: none"> • Fire prevention and response practices, including the proper dispensing and storage of gasoline, diesel, and other fuels and combustible chemicals; power tool and equipment use; emergency access; fire suppression equipment and training; vegetation clearing; designated parking areas; appropriate climatic conditions and designated areas to perform welding or blow torch activities and other hot-work activities; and ceasing of any or all work activities, including helicopter use, as directed by the OCFA or other applicable fire department representatives. • Communication protocols for on-site workers to coordinate with local agencies and emergency personnel and for the applicant's environmental health and safety personnel to coordinate with on-site workers in the event of fire, flood, or other emergencies or increased risk of emergency during construction or operation of the project. • The Project Construction Manager, Contract Administrators, and/or Site Foreman will be present at each worksite during construction activities, and it will be their responsibility to monitor the contractor's fire-prevention activities. The Project Construction Manager, Contract Administrators, and/or Site Foreman will have full authority to stop construction as needed to prevent fire hazards. The Project Construction Manager, Contract Administrators, and/or Site Foreman responsibilities will include: <ul style="list-style-type: none"> - Maintain a complete copy of the Fire Prevention and Emergency Response Plan; - Serve as a point of contact for fire departments in the event of fire or other emergency; - Manage the prevention, detection, control, and extinguishing of fires started accidentally as a result of construction activity; - Review site-specific fire prevention and emergency response plans with construction personnel prior to 	<ul style="list-style-type: none"> • Ensure that the applicant prepares and implements a fire control and emergency response plan. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>starting work in each project area;</p> <ul style="list-style-type: none"> - Ensure that all construction personnel are trained in fire safety measures relevant to their responsibilities. At minimum, construction personnel will be trained in fire prevention and emergency reporting. Each member of the construction work force will be trained and equipped to extinguish small fires (i.e., the fire can be controlled or extinguished by portable fire extinguishers, small hose systems, or portable water supplies without the need for protective clothing or breathing apparatus); - Be equipped with radio and cellular telephone access for the duration of each work day; - Ensure that all construction personnel are provided with operational radio and/or cellular telephone access to allow for immediate reporting of fires or other emergencies and ensure that communication pathways and equipment are tested and confirmed operational each day prior to initiating construction activities at each worksite; - Maintain an updated key personnel and emergency services contact (telephone and email) list onsite and available to construction personnel; and - Construction workers will immediately report all fires to the nearest Fire Risk Manager. <p>The required fire suppression equipment, tools, and other materials to be included with each construction vehicle on the Project.</p>		
<p>MM HAZ-5: Discovery of an Unrecorded Oil or Gas Well. If an unrecorded oil and gas well is discovered during construction of the proposed project and the well is located within 50 feet of a construction disturbance area, the applicant shall immediately cease work within 50 feet of the well and notify the California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR) Cypress District Office. Work shall not resume within 50 feet of the unrecorded well until DOGGR has determined appropriate actions to be taken and has given written notice of approval for work to resume.</p>	<ul style="list-style-type: none"> • Ensure that the applicant follows protocols during discovery of an unrecorded oil or gas well. 	<ul style="list-style-type: none"> • During construction and restoration.
Hydrology and Water Quality		
<p>MM WQ-1: Pesticide Application. If pesticides are used during construction or operations, they shall be applied in accordance with Federal Insecticide, Fungicide, and Rodenticide (FIFRA) labels. Applicators shall be appropriately trained and shall be certified by the California Department of Pesticide Regulation. Prior to any use of pesticides, the type of pesticides proposed for use shall be approved by the CPUC. Prior to each pesticide application, the National Weather Service (forecast.weather.gov) shall be consulted, and no pesticides shall be applied if the chance of rain exceeds 70% within 24 hours of the proposed application time and location. Records of type and amount of pesticides used and locations of application shall be kept and submitted to the CPUC on a monthly basis during construction.</p>	<ul style="list-style-type: none"> • Ensure that the applicant uses pesticides in accordance with 	
Noise and Vibration		
<p>APM NOISE-1: Nighttime and Weekend Activities. Any endeavors during the construction phase wherein nighttime and/or weekend activities are necessary (such as due to Caltrans transportation constraints for conductor stringing (I-5) or oversized/overweight loads or CAISO outage constraints) would be limited to the extent feasible so that noise would not exceed the pertinent maximum noise level limits or the hourly L₅₀ limits</p>	<ul style="list-style-type: none"> • Ensure that the applicant adheres to protocols during nighttime and weekend activities. 	<ul style="list-style-type: none"> • During construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>when measured at the nearest residential property. For example, to minimize potential noise disturbances during nighttime deliveries of transformers, the applicant would make every reasonable effort to minimize the duration of trucking activities at the project site. This would entail pulling delivery vehicles onto the project site, parking them overnight, and unloading/installing the item(s) during normal daytime construction hours. If nighttime or weekend activities cannot be conducted to meet the city's noise standards, SDG&E would communicate the exception to the appropriate local agency at least 24 hours in advance of conducting work that may exceed the threshold(s).</p>		
<p>MM NV-1: Nighttime and Weekend Construction Noise Controls. Before performing any construction activities required during periods of time not allowed by local ordinances (i.e., nighttime and weekends), the applicant will:</p> <ul style="list-style-type: none"> • Obtain authorization from the local jurisdiction where work will be performed (city or county, as applicable) prior to initiating work at night and on weekends; • Notify occupants of the sensitive receptors properties located within 230 feet of the work a minimum of one week prior to the potential activities and their anticipated duration; • Ensure that noise levels will not exceed exterior noise standards of 55 A-weighted decibels (dBA) at the property boundary during the period of 6:00 p.m. to 10 p.m. and 45 dBA between 10 p.m. and 7 a.m.; • Minimize the duration of trucking activities at work sites to less than 30 minutes, when feasible; • Monitor noise levels during a cumulative period of more than 30 minutes in any hour (L₅₀) and maximum noise levels (L_{max}) at the nearest residential property boundary during the period when nighttime or weekend construction is performed; • Report noise levels (hourly L₅₀ and L_{max}) measured at the nearest residential property to the local jurisdiction (city or county, as applicable) and the CPUC within one week. Noise level measurements shall be conducted and reported in compliance with the City of San Juan Capistrano and City of San Clemente requirements, as applicable; and • If nighttime or weekend activities cannot be conducted to meet the local ordinance exterior noise standards, the applicant will implement additional mitigation measures, such as: <ul style="list-style-type: none"> – Reducing trucking activities to shorter periods of time; – Using low noise electrical equipment; – Installing portable noise barriers surrounding the work sites; or – Offering potentially affected residents an alternative place to stay overnight or for a weekend, as necessary. 	<ul style="list-style-type: none"> • Ensure that the applicant adheres to protocols during nighttime and weekend activities. 	<ul style="list-style-type: none"> • During construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>MM NV-2: Low-Noise Substation Equipment and Noise Barriers. The applicant will ensure that San Juan Capistrano Substation’s operational noise levels will not exceed 45 dBA at the property boundary during the period of 10 p.m. to 7 a.m. This will be achieved by ensuring that the final substation layout provides sufficient setback between the project facilities and closest residential receptors, use of low-noise substation equipment, or installation of noise barriers in the perimeter of the substation. The 230-/138-kV and 138-/12-kV transformers will be located at a minimum distance of 100 feet from the nearest residential property. The applicant will conduct a noise survey at the closest receptors to the substation once the substation is fully operational to confirm that sufficient measures have been implemented to reduce noise levels to 45 dBA at the property boundary. The applicant will submit the noise survey results to the CPUC.</p>	<ul style="list-style-type: none"> • Ensure that the applicant implements appropriate setbacks and noise barriers. 	<ul style="list-style-type: none"> • During operation.
<p>MM NV-3: Construction Vibration Control Measures. The applicant will implement the following measures to reduce construction vibration at substations, transmission lines, distribution lines, and staging areas located within 100 feet of residential and other vibration-sensitive receptors:</p> <ul style="list-style-type: none"> • Route heavily loaded trucks away from residential streets, if possible. Select streets with the fewest homes if no alternatives are available; • Operate earth-moving equipment on construction sites as far away from residential and other vibration-sensitive receptors as possible; • Phase earth-moving and ground-impacting operations so as not to occur in the same time period; • Avoid nighttime activities; • Avoid the use of vibratory rollers near noise- and vibration-sensitive areas; • Conduct pre-construction notifications for sensitive receptors located within 100 feet of construction activities within 30 days prior to construction; • Develop a construction vibration mitigation and monitoring plan during final project design to be reviewed and approved by the CPUC; and • Implement a compliance monitoring program during construction to ensure implementation of vibration control measures. 	<ul style="list-style-type: none"> • Ensure that the applicant implements vibration control measures. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>MM NV-4: Corona Noise Reduction during Wet Weather Conditions. The applicant will ensure that the incremental increase in ambient noise levels from the proposed 230-kV transmission line corona noise levels will not exceed FTA Cumulative Noise Levels Allowed by Criteria (Figure 4.11-1) at the closest sensitive receptor during nighttime operations (10 p.m. to 7 a.m.). To verify compliance with this measure, the applicant will measure ambient noise levels before the proposed project’s 230-kV line operations and the operational noise levels at sensitive residential receptors located within 45 feet of the 230-kV line segments. Operational noise levels will be measured during three rain events during the first two rainy seasons when the 230-kV line is operating. Reports shall provide noise measurements in Ldn and indicate the existing ambient noise levels and weather conditions during measurements. The applicant will submit measurement results to the CPUC annually. If the reports determine that the corona noise levels exceed FTA Cumulative Noise Levels Allowed by Criteria at</p>	<ul style="list-style-type: none"> • Ensure that the applicant monitors and addresses corona noise as necessary. 	<ul style="list-style-type: none"> • During operation.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>sensitive residential receptors located within 45 feet, the applicant will implement the use of additional insulation equipment and additional technological solutions and will repeat the measuring of operational noise levels at sensitive residential receptors located within 45 feet of the 230-kV line segments during three rain events during the subsequent two rainy seasons until the FTA Cumulative Noise Levels Allowed by Criteria threshold is no longer exceeded during rain events.</p>		
<p>MM NV-5. Noise Control Plan. Prior to the start of construction, the applicant shall prepare a Noise Control Plan for the construction and restoration of the proposed project. The applicant shall submit the Noise Control Plan to the CPUC at least 30 days prior to the start of construction for review and approval. The Noise Control Plan shall include measures that the applicant shall employ during construction and restoration of the proposed project to keep generated noise levels below the Severe Impact range shown in Figure 4.11-1 (FTA 2006) of this EIR at the nearest sensitive receptors to each project construction location, in order to avoid significant impacts from temporary ambient noise increases. The Noise Control Plan shall include measures such as the following:</p> <ul style="list-style-type: none"> • Install and maintain an absorptive noise control barrier in the perimeter of the San Juan Capistrano Substation construction site. • Limit heavy equipment activity adjacent to residences or other sensitive receptors to the shortest possible period required to complete the work activity. • Ensure that proper mufflers, intake silencers, and other noise reduction equipment are in place and in good working condition. • Maintain construction equipment according to manufacturer recommendations. • Minimize construction equipment idling. • Noise from back-up alarms (alarms that signal vehicle travel in reverse) in construction vehicles and equipment shall be reduced by providing a layout of construction sites that minimizes the need for back-up alarms and using flagmen to minimize time needed to back up vehicles. • When possible, use construction equipment specifically designed for low noise emissions (i.e., equipment that is powered by electric or natural gas engines instead of diesel or gasoline reciprocating engines). Electric engines have been reported to have lower noise levels than internal combustion engines. • Where practical, locate stationary equipment such as compressors, generators, and welding machines away from sensitive receptors or behind barriers. 	<ul style="list-style-type: none"> • Ensure that the applicant prepares and implements a Noise Control Plan. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>The Noise Control Plan shall detail the frequency, location, and methodology for noise monitoring prior to and during various construction and restoration activities to ensure that generated noise levels do not exceed the Severe Impact range shown in Figure 4.11-1 of this EIR. The Noise Control Plan shall detail the actions and procedures that the applicant shall implement to mitigate impacts in the event that monitoring detects that noise levels have exceeded the Severe Impact range shown in Figure 4.11-1 of this EIR. Noise level measurements shall be conducted in compliance with the City of San Juan Capistrano, City of San Clemente, and Orange County requirements.</p> <p>The Noise Control Plan shall designate a Construction Relations Officer that is readily available to answer questions or respond to complaints during any hours or days that construction or restoration is occurring. The applicant shall send pre-construction notifications to sensitive receptors located within 100 feet of construction activities at least 30 days prior construction. The notification shall include a phone number for the public to contact the Construction Relations Officer. Additionally, each construction site shall include clearly visible signs with a phone number for the public to contact the Construction Relations Officer. The applicant shall submit on a monthly basis to the CPUC a summary report of the complaints submitted to the Construction Relations Officer. The summary report shall include detail on how each complaint was responded to, if and when the complaint was resolved, and contact information for the member of the public that submitted the complaint.</p>		
Public Services and Utilities		
<p>APM PS-1: Recreational Facility Access. Construction within existing public parks would not completely restrict access through the parks. Where necessary, SDG&E would create temporary foot and bicycle paths along with appropriate advanced notice and signage to direct and allow for the pedestrian and bicycle access through each affected park.</p>	<ul style="list-style-type: none"> • Ensure that the applicant maintains access to recreational facilities. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.
<p>APM PS-2: Repair Damage to Public Facilities. All recreational facilities that are physically impacted during construction activities would be returned to an approximate pre-construction state, allowing for SDG&E operation and maintenance activities, following the completion of the proposed project. SDG&E would make replacements of any public damaged or removed equipment, facilities, and infrastructure, in a timely manner.</p>	<ul style="list-style-type: none"> • Ensure that the applicant repairs damage to public facilities. 	<ul style="list-style-type: none"> • During restoration.
<p>APM PS-3: Roadway Repair. SDG&E Contract Administrators oversee all aspects of construction and would ensure that contractors repair any damage caused by construction activities. Contract Administrators would also work with the customers and/or local agency to ensure repairs are sufficient and consistent with pre-construction conditions. Contractors working for SDG&E typically photograph and/or video document pre-construction conditions. At the completion of construction activities, this documentation is used to ensure that any damage that is caused by construction work is repaired.</p>	<ul style="list-style-type: none"> • Ensure that the applicant repairs damage to roadways. 	<ul style="list-style-type: none"> • During restoration.
<p>MM PS-1: Water Efficiency Plan. The applicant will make reasonable attempts to reduce overall water use and will reduce potable water use by at least 20 percent during drought conditions, as declared by the State of California. The applicant will be required to research reclaimed water sources and acquire reclaimed water to the greatest extent practicable. The applicant will prepare and submit a Water Efficiency Plan to the California Public Utilities Commission (CPUC) for review and approval at least 60 days prior to construction. The Water Efficiency Plan will detail the applicant's water efficiency measures, including the use of reclaimed water, palliatives, alternative construction methods, or other measures proposed by the applicant. The Water Efficiency</p>	<ul style="list-style-type: none"> • Ensure that the applicant prepares and implements a water efficiency plan. 	<ul style="list-style-type: none"> • <u>60 days</u> prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>Plan will detail the applicant's attempts to secure reclaimed water. In the event that a sufficient supply of reclaimed water cannot be reasonably obtained, the applicant will provide a well-documented justification for any use of potable water to be used for construction activities. If, at any time during construction, the State Water Resources Control Board (SWRCB) rescinds their Emergency Regulations (Resolution No. 2014-0038) due to a cessation of drought conditions in the state, the applicant may request that the CPUC rescind this mitigation measure. Alternatively, the applicant will need to revise their Water Efficiency Plan to remain in compliance with future adopted SWRCB regulations regarding water use during drought conditions.</p>		
Transportation and Traffic		
<p>APM TR-1: Avoid Traffic Near Schools. Construction generated traffic associated with the San Juan Capistrano Substation and construction of the 138kV getaways (new underground cable packages and new Pole Nos. 1a through 7a) would avoid the start and ending time for the Saddleback Valley Christian School and the JSerra Catholic High School. Workers would arrive at construction sites by 7:30 AM and would not leave prior to 3:30 PM.</p>	<ul style="list-style-type: none"> • Ensure that the applicant avoids schools during identified times. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM TR-2: Avoid SR-74 Traffic. Construction generated traffic associated with the San Juan Capistrano Substation and construction of the 138kV getaways (new underground cable packages and new pole Nos. 1a through 7a) would avoid the SR-74 off ramp from I-5. Avoidance of the SR-74 and I-5 interchange would ensure that construction generated traffic would not exacerbate existing conditions on the stretch of road between the intersections of SR-74 and Rancho Viejo Road and SR-74 and Del Obispo.</p>	<ul style="list-style-type: none"> • Ensure that the applicant avoids the SR-74 and I-5 interchange. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM TR-3: Emergency Access. SDG&E would coordinate with local emergency response agencies during all construction within existing roadways. Coordination with local emergency response agencies (such as Orange County Sheriff's Department and Orange County Fire Authority) would ensure that impacts to emergency access are less than significant.</p>	<ul style="list-style-type: none"> • Ensure that the applicant coordinates with local emergency response agencies. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM TR-4: Off Peak Deliveries. Deliveries would be scheduled during off-peak traffic periods to reduce trips during the most congested periods of the day.</p>	<ul style="list-style-type: none"> • Ensure that the applicant schedules deliveries during off-peak traffic periods 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM TR-5: Material Removal, City Streets. For any underground work along city streets, materials would be removed from work areas on a daily basis to minimize traffic impacts.</p>	<ul style="list-style-type: none"> • Ensure that the applicant clears materials from work areas. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM TR-6: Helicopter Use. When helicopters are in use for construction activities, designated fly yards would be kept clear of all other construction activity. If helicopters are used during construction of the proposed project, existing helicopter landing areas would be used wherever feasible. Helicopter landing areas along the existing ROW would be located away from residences and other land uses (generally at least one mile from sensitive noise receptors).</p>	<ul style="list-style-type: none"> • Ensure that the applicant adheres to protocols during helicopter use. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>APM TR-7: Traffic Control Plans. Contractors working for SDG&E would develop specific traffic control plans immediately prior to the start of construction that adhere to the Standard Traffic Control Procedure from the authority having jurisdiction (federal, state, county, city, or municipality) of the roadway being impacted. The traffic control plans would be created for the various construction phases of the San Juan Capistrano Substation, underground transmission and underground distribution segments leaving the San Juan Capistrano Substation, and overhead transmission.</p>	<ul style="list-style-type: none"> • Ensure that the applicant prepares and implements traffic control plans. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

Applicant Proposed Measure (APM) or Mitigation Measure (MM)	Monitoring Requirements	Timing
<p>The approved traffic control plans would describe lane closures and other methods for reducing adverse construction-related traffic impacts and require SDG&E to coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles, to ensure that emergency vehicle access is maintained and that impacts to traffic flow are minimized.</p> <p>All traffic control plans would be developed, reviewed and approved by the authority having jurisdiction of the specific roadway being impacted. The traffic control plans would include vehicular and non-vehicular traffic and would be communicated to the public at least 48 hours in advance of the traffic control measures being installed in the roadway or as required by the traffic control permit.</p>		
<p>MM TR-2^(a): Helicopter Safety Plan and External-Load Training Program. Prior to start of construction, SDG&E must submit a Helicopter Safety Plan and External-Load Training Program prepared by qualified personnel to the CPUC. All workers that shall be present when helicopters are in use for construction of the project shall be trained regarding helicopter external loads. A sign-in sheet recording the names and dates of all individuals trained shall be maintained by SDG&E. Helicopter Safety Plan and Worker Environmental Awareness training shall include the following, at minimum:</p> <ul style="list-style-type: none"> • An overview of the general steps taken by the certified Rotorcraft External-Load Operators before starting operations, including a survey of the flight area; the typical ground worker instructions from certified Rotorcraft External-Load Operators; the ramp inspection checklist (14 CFR 133 Ramp Inspection Job Aid) and examples of typical causes of unsatisfactory ramp inspections; and the equipment typically required for Class A, B, C, and D loads as specified in 14 CFR 133; • A summary of the contents of the FAA-approved Rotorcraft Load Combination Flight Manuals applicable to external-load operations planned for the project including maximum loads (internal and external) and load types and general performance capabilities, under approved operating procedures and limitations, for each type of helicopter to be used; • Detailed instruction regarding the proper methods of loading, rigging, or attaching external loads and examples of improper rigging and resultant accidents and incidents; and • Detailed information about planned helicopter construction techniques. <p>A safety brief, plan of operations, and refresher helicopter external-load operations training shall occur at the start of all days during which helicopter external-load operations are planned to occur. The planned flight paths, landing areas, and timing and types of helicopter construction activities for the day shall be presented. At minimum, the refresher training shall include examples of load types and maximum loads (internal and external) for each type of helicopter to be used that day and a demonstration of proper external-load attaching and restraining means for all types of attaching and restraining devices that may be used.</p>	<ul style="list-style-type: none"> • Ensure that the applicant prepares and presents helicopter safety plan and external-load training program. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration.

^a Note:

(a) MM TR-1 was deleted in the Final EIR.

<p>No SDG&E personnel or contractor, including helicopter pilots and crewmembers, shall work in proximity to or be involved with helicopter external-load operations unless they receive the initial training and attend the daily safety brief and refresher training. Signatures of all personnel and contractors that attend the daily safety brief and refresher training shall be collected and clear indication on the worker (e.g., sticker on the hardhat color-coded by training day) shall be visible to indicate that the worker, pilot, or crewperson is approved to work in proximity to or otherwise be involved with helicopter external-load operations for the day.</p>		
<p>MM TR-3: Notification and Monitoring of Helicopter Use. SDG&E will notify the Long Beach Flight Standards District Office at least one week in advance of all days during which helicopter operations are planned to occur or as required by the Flight Standards District Office. In addition, SDG&E will notify all residents, businesses, and owners of property within 0.25 miles of planned helicopter flight paths and landing areas along the Project alignment at least one week in advance of all days during which helicopter operations are planned to occur.</p> <p>In compliance with 14 CFR Part 133, the loading and unloading of all helicopter external loads shall be monitored by lineman (non-apprentice) certified by SDG&E to rig and inspect helicopter external loads.</p> <p>All accidents or incidents reported to the National Transportation and Safety Board (NTSB) or FAA shall, at the same time of reporting, be reported to the CPUC. Near misses involving helicopters that had the potential to result in an accident or incident as defined by NTSB but do not require NTSB notification, shall be recorded by SDG&E and immediately reported to the applicant’s safety coordinator and the CPUC.</p>	<ul style="list-style-type: none"> • Ensure that the applicant provides one week notice of helicopter use. 	<ul style="list-style-type: none"> • During construction and restoration.
<p>MM TR-4 City of San Juan Capistrano and City of San Clemente Traffic Engineer and Parks and Recreation Review. Prior to commencing work within city boundaries of San Juan Capistrano and San Clemente, the applicant shall submit a draft Traffic Control Plan (APM TR-7) for the project to the City of San Juan Capistrano and City of San Clemente traffic engineers and Parks and Recreation departments for their review. A Draft Traffic Control Plan shall be submitted according to the timeframe established by the authority having jurisdiction of the roadway or trail being impacted. The applicant shall incorporate any recommendations from this review related to bikeway, sidewalk, and unpaved trail facilities into a final Traffic Control Plan prior to com. The applicant shall provide a copy of the final Traffic Control Plan to the City of San Juan Capistrano, the City of San Clemente, and the CPUC prior to commencing work.</p>	<ul style="list-style-type: none"> • Ensure that the applicant prepares and coordinates traffic control plan with local agencies. 	<ul style="list-style-type: none"> • Prior to and during construction and restoration
<p>MM TR-5: Content Requirements of the Traffic Control Plan. The applicant shall include and implement the following restrictions within their Traffic Control Plan (APM TR-7):</p> <ul style="list-style-type: none"> • Lane closures along Vista Montana shall only be implemented to avoid the start and ending time for the San Juan Hills High School. Lane closures along Vista Montana shall not be allowed during the periods of 6:30 to 8:00 AM and 2:00 to 3:30 PM on days when San Juan Hills High School is not in session. • Construction-generated traffic associated with the project shall avoid the start and ending time for San Juan Hills High School. Workers shall avoid traveling along Vista Montana during the periods of 6:30 to 8:00 AM and 2:00 to 3:30 PM on days that San Juan Hills High School is in session. These times shall be modified as necessary over the duration of the project in response to changing school arrival/dismissal times. <p>Additionally, a final traffic control plan shall be provided to the CPUC for approval prior to the start of construction.</p>	<ul style="list-style-type: none"> • Ensure that the applicant prepares and implements traffic control plans. 	<ul style="list-style-type: none"> • Prior to and during construction