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## TO PARTIES OF RECORD IN APPLICATION 15-03-003:

This is the proposed decision of Administrative Law Judge Gerald Kelly. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's February 9, 2017 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Upon the request of any Commissioner, a Ratesetting Deliberative Meeting (RDM) may be held. If that occurs, the Commission will prepare and publish an agenda for the RDM 10 days beforehand. When the RDM is held, there is a related ex parte communications prohibition period. (See Rule 8.3(c)(4).)

Pursuant to Rule 14.6(c)(2), comments on the proposed decision must be filed within 7 days of its mailing and reply comments must be filed within 11 days of its mailing.

/s/ RICHARD SMITH for  
Karen V. Clopton, Chief  
Administrative Law Judge

KVC:ek4  
Attachment

Decision **PROPOSED DECISION OF ALJ KELLY** (Mailed 1/20/2017)

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

In the Matter of the Application of Southern California Edison Company (U338E) for a Permit to Construct Electrical Substation Facilities with Voltage over 50 kV: Mesa 500 kV Substation Project.

Application 15-03-003  
(Filed March 13, 2015)

**DECISION GRANTING PERMIT TO CONSTRUCT THE  
MESA 500-KV SUBSTATION FACILITY PROJECT**

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**DECISION GRANTING PERMIT TO CONSTRUCT THE  
MESA 500-KV SUBSTATION FACILITY PROJECT**

**Summary**

This decision grants Southern California Edison Company (SCE) a permit to construct (PTC) the Mesa 500 kV Substation Facility Project, with mitigation identified in the Mitigation Monitoring, and Reporting Plan attached to this order. As the lead agency for environmental review of the project, we find that the Environmental Impact Report (EIR) for this project meets the requirements of the California Environmental Quality Act (CEQA). This proceeding is closed.

**1. Background**

Pursuant to California Public Utilities Commission (Commission) General Order (GO) 131-D, Southern California Edison Company (SCE) (U388E) submitted its Application (A.) 15-03-003 for a permit to construct (PTC) the proposed project known as the Mesa 500 kV substation Project (Project) on March 13, 2015. SCE requests authorization in its PTC Application to do the following:

- Construct the proposed Mesa 500 kV Substation and demolish the existing Substation within the City of Monterey Park.
- Remove, relocate, modify and/or construct transmission, subtransmission, distribution, and telecommunications structures within the cities of Monterey Park, Montebello, Rosemead, South El Monte and Commerce and in portions of unincorporated Los Angeles County.
- Convert an existing street light source line from overhead to underground between three street lights on Loveland Street within the City of Bell Gardens.
- Install a temporary 220 kV line loop-in at Goodrich Substation within the City of Pasadena.

- Perform minor modifications within several existing substations. These modifications would be located within the substations' existing fenced perimeters, and the associated work would be similar to Operation and Maintenance activities SCE currently performs.

On April 16, 2015, the Commission's Office of Ratepayer Advocates (ORA) filed a protest. On April 23, 2015, SCE filed its reply to ORA's protest. On July 28, 2016, the California Independent System Operator Corporation (CAISO) filed a motion for party status, which was granted by email ruling on July 29, 2016. Bay Area Municipal Transmission Group (BAMx) filed a motion for party status on October 27, 2016, which was granted by email ruling on October 27, 2016.

Pursuant to GO 131-D, a PTC is conditioned on the Commission's determination that the project complies with the California Environmental Quality Act (CEQA) and 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 and 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. Where it is anticipated that the proposed project will create significant and unmitigable environmental impacts, then the lead agency must 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 perspective, the preferred project alternative.

In addition, pursuant to GO 131-D and Decision (D.) 06-01-042, the Commission will not approve a project unless its design is in compliance with

the Commission's policies governing the mitigation of EMF effects using low-cost and no-cost measures.

The Commission's Energy Division issued the Draft EIR on April 29, 2016 and issued the Final EIR on October 7, 2016.<sup>1</sup>

A prehearing conference was conducted on November 4, 2016, in Los Angeles, California. Hearings were held on December 9, 2016, in San Francisco, California. Opening briefs were submitted on December 21, 2016. Reply briefs were filed on December 28, 2016.

## **2. Scope of Issues**

The assigned Commissioner's November 14, 2016, scoping memo identifies the following issues to be determined in this matter:

1. What are the significant environmental impacts of the Proposed Project?
2. Are there potentially feasible mitigation measures that will eliminate or lessen the significant environmental impacts?
3. As between the proposed project and the project alternatives, which is environmentally superior?
4. Are the mitigation measures or project alternatives infeasible?
5. To the extent that the proposed project and/or project alternatives result in significant and unavoidable impacts, are there overriding considerations that nevertheless merit Commission approval of the proposed project or project alternative?
6. Was the EIR completed in compliance with CEQA; did the Commission review and consider the EIR prior to approving the project or a project alternative; and does the

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<sup>1</sup> The Final EIR contains comments on the Draft EIR, responses to the comments, and revisions to the Draft EIR. The EIR is comprised of both the Draft EIR and the Final EIR.

- EIR reflect the Commission's independent judgment and analysis?
7. If the Proposed Project is delayed past the 2020 timeframe, are there additional mitigation measures that may be required to maintain electrical reliability in Southern California?
  8. Is the proposed project and/or project alternatives designed in compliance with the Commission's policies governing the mitigation of EMF effects using low-cost and no-cost measures? and
  9. Are there any safety issues pursuant to Pub. Util. Code § 451?

### **3. Environmental Impacts of Proposed Project**

Components of the project will be located in various jurisdictions in Los Angeles County and have been divided into three geographical areas referred to as the Main Project Area, North Area and South Area. Additionally, the proposed project includes work to be conducted at multiple existing substations operated by the applicant.

The Main Project Area contains the proposed Mesa Substation site and includes the Metropolitan Water District of Southern California (MWD) pipeline relocation and associated transmission, subtransmission, distribution and telecommunication lines proposed within the cities of Monterey Park, Montebello, Rosemead, South El Monte, and in portions of unincorporated Los Angeles County.

The North Area includes the temporary installation of a 220-kV transmission structure in the City of Pasadena to temporarily connect the Eagle Rock-Mesa 220-kV Transmission Line to Goodrich Substation.

The South Area comprises a proposed transmission structure replacement in the City of Commerce and the proposed conversion from overhead to



underground of three spans of existing street light conductors within the City of Bell Gardens.

The proposed project consists of the following main components:<sup>2</sup>

- Construction of the new 500/220/66/16-kV Mesa Substation and demolition of the existing 220/66/16-kV substation, increasing the substations footprint from about 22 acres to 69 acres.<sup>3</sup>
- Removal, relocation, modification, and/or construction of transmission lines,<sup>4</sup> subtransmission,<sup>5</sup> distribution and telecommunication structures to accommodate the new 500/220/66/16-kV Mesa Substation within existing applicant-owned properties, rights-of-way (ROWs),<sup>6</sup> and franchise areas located in the cities of Monterey Park, Montebello, Rosemead, South El Monte, Commerce and in portions of unincorporated Los Angeles County.
- Installation of a temporary 220-kV transmission structure to connect the Eagle Rock-Mesa 220-kV Transmission Line to Goodrich Substation and maintain a second line of service to the City of Pasadena.
- Replacement of an existing 220-kV double-circuit transmission structure supporting the existing Goodrich-Laguna Bell (future Laguna Bell-Mesa Number (No.) 1) and Mesa-Redondo 220-kV Transmission Lines in order to

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<sup>2</sup> Locations of the key proposed project components of the project are provided in Table 1. Attachment 1 contains a detailed description of each proposed project component and the work to be done at each location.

<sup>3</sup> The total acreage owned by the applicant is 86.2 acres.

<sup>4</sup> Transmission lines are designed to operate at or above 200 kV.

<sup>5</sup> For purposes of this proposed decision, subtransmission line refers to a powerline designed to operate between 50 kV and 200 kV.

<sup>6</sup> Right-of-way (ROW) refers to an area which the applicant would have legal access for construction and operation of the proposed utility facilities.

increase the capacity rating<sup>7</sup> of the future Laguna Bell-Mesa No. 1 (220 kV) Transmission Line.

- Relocation of an existing 72-inch Metropolitan Water District of Southern California (MWD) waterline that traverses the substation location.
- Decommission 10 existing groundwater monitoring wells located within the substation site that are administered by the United States Environmental Protection Agency.
- Electrical and/or telecommunications equipment upgrades at 27 existing substations.
- Undergrounding of three spans of overhead streetlight conductors within the City of Bell Gardens.
- Minor internal equipment replacement and upgrades within the perimeter of 27 existing substations operated by the applicant within the applicant’s service area.

Table 1: Locations of the key proposed project components.

Jurisdiction	Component(s)
Bell Gardens	<ul style="list-style-type: none"> <li>▪ Street light source line conversion</li> </ul>
Commerce	<ul style="list-style-type: none"> <li>▪ 220-kV structure replacement</li> <li>▪ Staging Yard 5</li> </ul>
Unincorporated Los Angeles County	<ul style="list-style-type: none"> <li>▪ Telecommunications Routes 1 and 3</li> </ul>
Montebello	<ul style="list-style-type: none"> <li>▪ 220-kV transmission lines</li> <li>▪ 500-kV transmission lines</li> <li>▪ Telecommunications Routes 1, 2, and 3</li> <li>▪ Staging Yards 2 and 3</li> </ul>
Monterey Park	<ul style="list-style-type: none"> <li>▪ 16-kV distribution lines</li> <li>▪ 66-kV subtransmission lines</li> <li>▪ 220-kV transmission lines</li> </ul>

<sup>7</sup> Capacity rating is defined by the Edison Electric Institute as the specific level of electrical loading that a system, a facility, or element can support or withstand through the daily demand cycles without loss of equipment or equipment life.

Jurisdiction	Component(s)
	<ul style="list-style-type: none"> <li>▪ 500-kV transmission lines</li> <li>▪ Telecommunications Routes 1 and 2</li> <li>▪ Staging Yards 1 and 3</li> </ul>
Pasadena	<ul style="list-style-type: none"> <li>▪ Temporary 220-kV structure installation</li> <li>▪ Telecommunications rerouting</li> <li>▪ Staging Yard 4</li> </ul>
Rosemead	<ul style="list-style-type: none"> <li>▪ Staging Yard 6</li> </ul>
South El Monte	<ul style="list-style-type: none"> <li>▪ Staging Yard 7</li> </ul>

The proposed project would result in five significant and unavoidable impacts in the resource areas of aesthetics, air quality, and noise.

The proposed project would have a significant and unavoidable impact on the aesthetics of the surrounding area. Under Landscape Option 1, aesthetics would be impacted until landscaping trees mature. Under Landscape Option 2, aesthetic impacts would remain significant even after the implementation of mitigation. The view of the substation from North Vail Avenue would result in significant impacts to aesthetics after mitigation.

Air quality would also experience significant and unavoidable consequences as a result of the proposed project. Even with mitigation measures in place, there would be significant emissions of carbon monoxide due to construction activities which would violate air quality standards or substantially contribute to an existing or projected air quality violation. Furthermore, the proposed project would result in significant unavoidable impacts after mitigation due to exposure of sensitive receptors to substantial pollutant concentrations as a result of construction emissions of nitrous oxide (NO<sub>x</sub>).

Montebello, South El Monte, Commerce and Pasadena all have noise ordinances. Construction of the proposed project would result in noise levels in

excess of these noise ordinances. Even with mitigation, the noise levels would be significant and unavoidable. Additionally, construction of the substation and telecommunications routes, conversion of the street light source line, and modifications at Walnut substation would result in significant temporary increases in ambient noise levels. Even with mitigation measures in place, the impact would be significant and unavoidable.

The following table provides a summary of the significant and unavoidable impacts of the proposed project:

Resource	Significant and Unavoidable Impact
Aesthetics	<b>Impact AE-1:</b> Substantially degrade the existing visual character or quality of the site and its surroundings.
Air Quality	<b>Impact AQ-2:</b> Violate any air quality standard or contribute substantially to an existing or projected air quality violation. <b>Impact AQ-4:</b> Expose sensitive receptors to substantial pollutant concentrations.
Noise	<b>Impact NV-1:</b> Result in noise levels in excess of standards established in the local general plan or noise ordinance <b>Impact NV-4:</b> Result in substantial temporary or periodic increase in ambient noise levels in the project vicinity.

The EIR determined that the Project would have no impact or a less than significant impact on the resource areas of greenhouse gases; land use and planning; population and housing and recreation. Additionally, the Project will result in impacts that can be mitigated to a less than significant in the remaining resource areas of biological; cultural and paleontological; geology, soils and

minerals; hazards and hazardous materials; hydrology and water quality; public services and utilities; and traffic and transportation.

#### 4. Project Alternatives

CEQA requires the consideration of a range of reasonable project alternatives to the proposed project that would feasibly attain most of the basic objectives of the project and avoid or substantially lessen any of the significant effects of the project.

The EIR identifies the following project objectives:

1. Address anticipated violations of North American Electric Reliability Corporation (NERC) Standard TPL-001-04 (NERC 2015), Western Electricity Coordination Council (WECC) Regional Business Practice TPL-001-WECC-RBP-2 (WECC 2011) and CAISO Planning standards that would occur by December 31, 2020, of generators that use Once-Through-Cooling (OTC).
2. Avoid introduction of new violations of NERC, WECC, and CAISO standards.
3. Maintain electrical service by minimizing service interruptions during the project.

The EIR screened nine project alternatives and determined that three of the alternatives should be carried forward for full analysis in the EIR because they meet CEQA requirements for alternatives as discussed in Section 3.2 of the EIR. All three of the alternatives meet all of the project objectives; are potentially feasible; and substantially reduce or avoid at least one significant impact of the proposed project.<sup>8</sup> Ultimately, the EIR determined that all three of the

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<sup>8</sup> The remaining six alternatives were rejected because they either fail to meet most of the project objectives; are technically infeasible; or the effect of the alternative cannot be reasonably ascertained and implementation is remote and speculative. The six rejected alternatives are: 500-kV Substation with one 1200-MVA Transformer Bank; 500-kV Substation adjacent to

*Footnote continued on next page*

alternatives are environmentally superior to the proposed project. The following table provides a summary of the environmentally superior alternatives.

<b>Alternative Name</b>	<b>Description</b>	<b>Differences with Proposed Project</b>
One-Transformer Bank (1600 megavolt amperes (MVA)) Substation	<ul style="list-style-type: none"> <li>▪ Project built as proposed, but using one 1600-MVA 500/220 kilovolt (kV) transformer banks with space for a spare transformer bank</li> </ul>	<ul style="list-style-type: none"> <li>▪ No 1120-MVA 500/220-kV transformer banks</li> <li>▪ One 1600-MVA 500/220-kV transformer bank</li> <li>▪ Smaller 500-kV switchrack</li> <li>▪ Requires Remedial Action Scheme (RAS)</li> <li>▪ Substation footprint reduced by 11.6 acres</li> </ul>
Two-Transformer Bank (1120 MVA) Transformer Alternative	<ul style="list-style-type: none"> <li>▪ Project built as proposed, but using two 1120-MVA 500/220-kV transformer banks instead of three 1120-MVA 500/220-kV transformer banks with space for a spare transformer bank</li> </ul>	<ul style="list-style-type: none"> <li>▪ One fewer 1120-MVA 500/220-kV transformer bank</li> <li>▪ Smaller 500-kV switchrack</li> <li>▪ Requires RAS</li> <li>▪ Substation footprint reduced by 8.3 acres</li> </ul>
Gas-Insulated Substation Alternative	<ul style="list-style-type: none"> <li>▪ Project built as proposed, but using gas-insulated switchgear instead of air insulated switchgear</li> </ul>	<ul style="list-style-type: none"> <li>▪ Smaller switchrack for all voltages (500 kV, 220 kV, and 16 kV)</li> <li>▪ Substation footprint reduced by 7.3 acres</li> </ul>

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existing Mesa 220-kV Substation; Load shedding in Los Angeles-Long Beach-Anaheim, San Diego, and or Riverside - San Bernardino; Install additional reactive support at other SCE Substations; Load Shedding and Reconductoring; Connection to LADWP System at Alamitos Substation.

Each of the alternatives noted above would significantly reduce the environmental impacts when compared to the original project. The following table summarizes the reduced significant impacts.

<b>Alternative Considered</b>	<b>Significant Impacts Reduced</b>
<p>One-Transformer Bank (1600 megavolt amperes MVA) Substation</p>	<ul style="list-style-type: none"> <li>▪ <b>Aesthetics:</b> Slightly reduces aesthetic impacts to viewers on Potrero Grande Avenue.</li> <li>▪ <b>Air Quality:</b> Substantially reduces fugitive dust emissions from ground disturbance.</li> <li>▪ <b>Biological Resources:</b> Substantially reduces impacts to avian and special-status-species and habitat, and potentially jurisdictional waters.</li> <li>▪ <b>Cultural Resources:</b> Negligibly lowers potential for discovery of a previously undiscovered cultural resource.</li> <li>▪ <b>Geology, Soils, and Minerals:</b> Slightly reduces erosion.</li> <li>▪ <b>Hazards and Hazardous Materials:</b> Slightly reduces risk of contamination of groundwater or soils from groundwater well abandonment. Slightly reduces chance of an accident and or encountering contaminated soils.</li> <li>▪ <b>Hydrology and Water Quality:</b> Slightly reduces risk of water pollution, potential for sedimentation, potential for flooding, and potential of hazardous material spills. Slightly reduces groundwater needs.</li> </ul>

Alternative Considered	Significant Impacts Reduced
Two-Transformer Bank (1120 MVA) Transformer Alternative	<ul style="list-style-type: none"> <li>▪ <b>Aesthetics:</b> Slightly reduces aesthetic impacts to viewers on Potrero Grande Avenue.</li> <li>▪ <b>Air Quality:</b> Substantially reduces fugitive dust emissions from ground disturbance.</li> <li>▪ <b>Biological Resources:</b> Substantially reduces impacts to avian and special-status-species and habitat, and potentially jurisdictional waters.</li> <li>▪ <b>Cultural Resources:</b> Negligibly lowers potential for discovery of a previously undiscovered cultural resource.</li> <li>▪ <b>Geology, Soils, and Minerals:</b> Slightly reduces erosion.</li> <li>▪ <b>Hazards and Hazardous Materials:</b> Slightly reduces risk of contamination of groundwater or soils from groundwater well abandonment. Slightly reduces chance of an accident and or encountering contaminated soils.</li> <li>▪ <b>Hydrology and Water Quality:</b> Slightly reduces risk of water pollution, potential for sedimentation, potential for flooding, and potential of hazardous material spills. Slightly reduces groundwater needs.</li> </ul>
Gas-Insulated Substation Alternative	<ul style="list-style-type: none"> <li>▪ <b>Aesthetics:</b> Slightly reduces aesthetic impacts to viewers on Potrero Grande Avenue.</li> <li>▪ <b>Air Quality:</b> Substantially reduces fugitive dust emissions from ground disturbance.</li> <li>▪ <b>Biological Resources:</b> Substantially reduces impacts to avian and special-status-species and habitat, and potentially jurisdictional waters.</li> <li>▪ <b>Cultural Resources:</b> Negligibly lowers potential for discovery of a previously undiscovered cultural resource.</li> <li>▪ <b>Geology, Soils, and Minerals:</b> Slightly reduces erosion.</li> <li>▪ <b>Hazards and Hazardous Materials:</b> Slightly reduces risk of contamination of groundwater or soils from groundwater well abandonment. Slightly reduces chance of an accident and or encountering</li> </ul>



Alternative Considered	Significant Impacts Reduced
	contaminated soils. ▪ <b>Hydrology and Water Quality:</b> Slightly reduces risk of water pollution, potential for sedimentation, potential for flooding, and potential of hazardous material spills. Slightly reduces groundwater needs.

## 5. Environmentally Superior Alternative

All three of the alternatives discussed above are considered environmentally superior to the proposed Project. As noted in the FEIR, the One-transformer Bank Substation is considered the most environmentally superior alternate in seven resource areas and therefore is considered environmentally superior to all alternatives and the proposed Project.<sup>9</sup> Specifically, the One-Transformer Bank is environmentally superior for permanent impacts to biological resources and therefore, was given substantial weight in the FEIR.

The Gas-Insulated Substation Alternative is considered to be the most environmentally superior alternative for only aesthetics. However, the Gas-Insulated Substation Alternative could result in a significant impact to greenhouse gases (GHG) that would not be presented with the original Project or the One-transformer Bank Substation.

The State of California is concerned about the adverse impacts that GHG have upon the environment and health and safety of the residents of California. Specifically, the Legislature found and declared that global warming caused by GHG “poses a serious threat to the economic well-being, public health, natural

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<sup>9</sup> FEIR Volume II at 5-26.

resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.”<sup>10</sup>

Due to the potential GHG impacts presented by the Gas-Insulated Substation, it is considered environmentally inferior to the One-Transformer Bank Substation. As a result, the One-Transformer Bank Substation is considered to be the overall Environmentally Superior Alternative.

## **6. Certification of EIR**

The lead agency must certify that the EIR was completed in compliance with CEQA, that the agency has reviewed and considered it prior to approving the project, and that the EIR reflects the agency’s independent judgment.

Energy Division issued the Draft EIR for public review and comment on April 29, 2016. Notice was provided of the public review period and public meeting to public agencies, adjacent property owners and occupants, the official service list for this matter, and agencies, organizations, and individuals that submitted comments on the Notice of Preparation for the EIR.<sup>11</sup> Verbal comments were not taken at the public meeting. Energy Division received

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<sup>10</sup> California Global Warming Solutions Act of 2006.

<sup>11</sup> The public meeting was held on May 18, 2016 in Monterey Park.

approximately 25 written comments during the comment period, which ended June 27, 2016.<sup>12</sup>

The Final EIR documents all comments made on the Draft EIR, and responds to them, as required by CEQA. The EIR identifies the proposed project's significant and unavoidable environmental impacts, mitigation measures that will avoid or substantially lessen them, and the environmentally superior alternative. We have reviewed and considered the information contained in the EIR. We certify that the EIR was completed in compliance with CEQA. We have reviewed and considered the information contained in the EIR, and we certify that it reflects our independent judgment and analysis.

#### **7. Overriding Considerations and Rejection of the Environmentally Superior Alternatives as Infeasible**

Pursuant to CEQA Guidelines § 15093, the Commission may only approve a project that results in significant and unavoidable impacts if it finds that there are benefits to the project that outweigh the unavoidable adverse environmental impacts and makes a statement of overriding considerations to that effect.

The proposed project would enable SCE to do the following:

1. Address anticipated violations of North American Electric Reliability Corporation (NERC) Standard TPL-001-04 (NERC 2015), Western Electricity Coordination Council (WECC) Regional Business Practice TPL-001-WECC-RBP-2 (WECC 2011) and CAISO Planning standards that would occur by December 31, 2020, of generators that use Once-Through Cooling (OTC).
2. Avoid introduction of new violations of NERC, WECC, and CAISO standards.

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<sup>12</sup> The 25 comment letters resulted in approximately 549 discrete issue-by-issue comments, which the Commission responded to in the Final EIR.

3. Maintain electrical service by minimizing service interruptions during the project.

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other 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 of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable (CEQA Guidelines § 15093.)

When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency must state in writing the specific reason to support its actions based on the final EIR and/or other information in the record.

Having (i) adopted all feasible mitigation measures, (ii) recognized all significant, unavoidable impacts, and (iii) balanced the benefits of the Project against its significant and unavoidable impacts, the Commission finds that the Project's benefits outweigh and override its significant unavoidable impacts for the reasons set forth below.

### **7.1. Parties' Positions**

SCE and CAISO filed opening and rebuttal testimony in this proceeding. ORA filed opening testimony and BAMx did not file any testimony in this proceeding. SCE supports approval of its proposed project, as previously described. SCE disagrees with the FEIR findings, reaffirming its position that the three alternatives are not environmentally superior. SCE further asserts that the One-Transformer Alternative is infeasible, particularly due to reliability and cost

concerns. SCE argues that benefits of the proposed project override offsetting impacts, and is the only option to address reliability concerns. The CAISO supports SCE's position in its testimony.

ORA recommends rejection of the proposed project and approval of the One-Transformer Alternative because it: 1) is environmentally superior based on EIR findings, 2) provides a power flow similar to the Proposed Project, and 3) would substantially reduce impacts to biological resources.

## **7.2. Discussion**

We are guided by CEQA rules as the basis for evaluation and approval of SCE's proposed project. As discussed below, we thus find the proposed project warrants approval because (a) although the identified alternatives are environmentally superior, none of them is feasible, and (b) benefits of the proposed project override the identified environmental impacts.

CEQA provides that "public agencies should not approve projects as proposed if there are feasible alternatives...available which would substantially lessen the significant environmental effects of such projects..."<sup>13</sup> In this case, the FEIR identified three alternatives to SCE's proposed project, as noted in Section 3 above. The EIR found (a) Alternative 1 environmentally superior overall, and (b) all three alternatives environmentally superior to SCE's proposed project.<sup>14</sup>

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<sup>13</sup> Pub. Res. Code § 21081. The Guidelines define feasible as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" (CEQA Guidelines § 15364).

<sup>14</sup> FEIR Table ES-3 describes the significant impacts reduced by the alternatives, identifying Air Quality and Biological Resources as areas "substantially reduced" by the FEIR Alternatives. All other reduced effects are identified as being only "negligibly lower" or "slightly reduced" by the alternatives.

In addition to being environmentally superior, however, an alternative must be feasible to qualify for approval. (*See* Pub. Resources Code § 21002.) CEQA provides that “in the event specific economic, social or other conditions [or considerations] make infeasible such project alternatives...individual projects may be approved in spite of one or more significant effects thereof.”<sup>15</sup> The Commission may take into account social and other factors in reaching its conclusion about the feasibility of alternatives. We may reject an alternative based on policy considerations. (*See City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417 [“‘[F]easibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors.”])<sup>16</sup>

Although the FEIR found the three alternatives “potentially” feasible, that preliminary assessment was subject to evidentiary proceedings regarding actual feasibility. We find that all three alternatives are infeasible, however, based on consideration of substantial evidence. (PRC § 21081(a); CEQA Guidelines § 15091.)<sup>17</sup> Specifically, based on the testimony of SCE, as supported by the CAISO, we find the FEIR Alternatives are infeasible because they: (a) result in reliability concerns, (b) cause significant delays in scheduling and facilitating OTC Retirement, and (c) are likely to be as costly or more costly than the

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<sup>15</sup> Pub. Res. Code § 21002; §21002.1; CEQA Guidelines § 15091(a)(3).

<sup>16</sup> *California Native Plant Soc. v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001).

<sup>17</sup> Substantial evidence consists of “facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.” (CEQA Guidelines § 15384(b).) Substantial evidence does not include argument, speculation, unsubstantiated opinion, or evidence that is inaccurate, erroneous, or not credible. (CEQA Guidelines § 15064(f)(5)).

Proposed Project. These factors, in conjunction with specific policy considerations including revised planning assumptions and updated transmission planning modelling, make the FEIR Alternatives infeasible.

In contrast, we conclude that the Proposed Project is feasible and necessary notwithstanding its significant unavoidable impacts found in the FEIR relating to “Aesthetics, Air Quality, and Noise.”<sup>18</sup> Although the identified environmental impacts of the proposed project cannot be mitigated to less than significant levels, we find that overriding considerations outweigh these impacts. More specifically, the proposed project will provide important benefits that warrant project approval.

Although ORA supports Alternative 1, ORA focuses primarily on environmental impact findings as the basis for its position. ORA expresses no opinion, however, as to whether overriding considerations exist which warrant approval of the Proposed Project.<sup>19</sup> Therefore, no party offers a basis to refute evidence presented that there are overriding considerations which warrant approval of the Proposed Project. Given the overriding considerations discussed below, and notwithstanding the environmental impacts found in the FEIR, we conclude that SCE’s proposed project should be approved.

The proposed project will provide an additional point of 500kV service into SCE’s metropolitan load center, addressing important reliability concerns. The proposed project is needed to facilitate OTC retirement requirements by December 31, 2020 and to address anticipated NERC, WECC, and California CAISO violations that could occur upon the retirement of generators using OTC.

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<sup>18</sup> FEIR, Section 6.3 at 6-37 – 6-38.

<sup>19</sup> ORA Opening Brief at 4.

The project will also allow for greater flexibility in siting future generation projects to meet local reliability needs in the Western Los Angeles Basin (Electrical Needs Area or ENA) while reducing new generation requirements by providing additional transmission import capability.

### **7.2.1. Challenges to FEIR Findings on Environmental Impacts**

As discussed above in Sections 3, 4 and 5, we accept FEIR findings on environmental impacts of SCE's proposed project and identified alternatives. SCE, however, continues to challenge certain FEIR findings in its testimony. In particular, SCE continues to dispute FEIR findings that identified alternatives that are environmentally superior.<sup>20</sup> The FEIR did not find the SCE comments in this regard persuasive enough to change its conclusions and retained the alternatives for Commission consideration.

SCE disagreed with the FEIR findings regarding aesthetics, and claimed that the Draft EIR overstated the incremental visual change in this urban, disturbed area and incorrectly concluded that visual effects would be significant. The FEIR did not accept SCE's analysis.

SCE also claims that the FEIR alternatives do not offer substantial environmental advantages over the Proposed Project.<sup>21</sup> SCE further claims that the FEIR alternatives result in greater air quality impacts, particularly from exhaust emissions, due to the increased amount of imported soil, as well as increased potential fugitive dust impacts due to an extended grading schedule. SCE claims that the Proposed Project achieves lower exhaust emissions by

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<sup>20</sup> SCE Opening and Reply Briefs.

<sup>21</sup> SCE Opening and Reply Briefs.



requiring fewer haul trips for grading and a shorter grading schedule.<sup>22</sup> SCE also claims the FEIR underestimates the amount of grading necessary for Alternatives 2 and 3, and, as a result, overestimates the acreage saved under these alternatives.

SCE also claims that the FEIR Alternatives do not substantially lessen impacts to biological resources as compared to the proposed project.<sup>23</sup> SCE thus argues that the FEIR Alternatives do not offer substantial environmental advantages, and considering their other negative effects (*e.g.*, reliability, delay, etc.), the FEIR Alternatives are not feasible.

Finally, SCE argues that in any case, the project would require significant temporary disturbance south of the substation perimeter to replace existing overhead lines traversing that area with new overhead and/or underground lines, as well as the installation of a new storm drain to handle storm water run-on.<sup>24</sup> Because of the uncalculated additional grading for the Two Transformer and GIS Alternatives, and because of the temporary disturbance that would take place, SCE claims the FEIR calculations of acreage preserved are overestimated.<sup>25</sup>

In response to the environmental disputes raised by SCE, we decline to contradict the findings in the FEIR. SCE has had the opportunity to be heard regarding environmental impacts through the EIR process. Notwithstanding SCE's objections to the contrary, we rely on the EIR findings regarding

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<sup>22</sup> SCE Opening Brief referencing Testimony of Pendleton, SCE-01.

<sup>23</sup> SCE Opening Brief at 11.

<sup>24</sup> SCE Opening Brief at 14.

<sup>25</sup> SCE Opening Brief at 14.

significant environmental impacts as a factor in our overall decision on project approval.

### **7.2.2. Water Pipe Relocation Issues**

ORA sought to refute SCE's claim that the One Transformer Alternative is infeasible by arguing that relocation of the MWD water pipe would be required.<sup>26</sup> SCE responded that infeasibility of the One Transformer Alternative has nothing to do with required relocation of the MWD waterline as the existing MWD waterline falls within the area where the future 220kV switchrack and 220/66 kV transformer banks would be located, regardless of which alternative is selected.<sup>27</sup>

Given these facts, we agree with SCE that selecting the One Transformer Alternative would not avoid the need to relocate the MWD waterline. Accordingly, ORA offers no convincing rebuttal to SCE's claim that the One-Transformer Alternative is infeasible.

### **7.2.3. Reliability Issues**

The electrical grid must maintain reliability during peak periods, which often occur during afternoons when renewable generation output levels are relatively high.<sup>28</sup> During these periods, the grid relies on significant contributions from renewable resources to balance load. But the system grid

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<sup>26</sup> SCE Opening and Reply Briefs.

<sup>27</sup> The Proposed Project requires complete relocation of all existing 200 kV, 66 kV and 16 kV switchracks and associated lines to new locations on the western portion of the property. This substation relocation is driven by the need to build the new 500 kV switchrack and 500/220 kV transformer banks in the area currently occupied by the existing substations, which is a scope element common to the Proposed Project and all three Alternatives.

<sup>28</sup> SCE Opening Brief at 17-25.

must also be flexible enough to serve loads later in the evening, when output from renewable resources drop. FEIR Alternatives 1 and 2, however, are not reliable enough to meet these dynamic needs of the power grid.<sup>29</sup> Because FEIR Alternatives 1 and 2 create undue reliability risks in this regard, they are not feasible.

#### **7.2.3.1. Recognition of Renewable Portfolio Assumptions**

As compared to the Proposed Project, FEIR Alternatives 1 and 2 reduce import capability into the Western LA Basin by reducing the number of 500/220kV transformer banks from three (in the Proposed Project) to one or two transformers. The reduced import capability, however, will limit the ability to accommodate changes in the type and location of renewable resources outside the Western LA Basin. These renewable resources will be imported through Mesa Substation to service a large portion of the Western LA Basin and replace the capacity provided from OTC resources. Due to state policy, generation resources are shifting from in-basin fossil fueled power plants to renewable resources located outside of the Western LA Basin. Resource portfolios are moving to a 33% Renewable Portfolio Standard (RPS) by 2020.<sup>30</sup> With passage of Senate Bill 350, the RPS goal will be increased to 50% by 2030.

Although the FEIR Alternatives 1 and 2 are potentially feasible with respect to reliability, the FEIR analyzed violations of planning criteria based only

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<sup>29</sup> SCE Opening Brief at 19-23.

<sup>30</sup> SCE Opening Brief at 18.

on SCE's 2014 annual reliability assessment. Yet, the planning assumptions developed in 2014 by SCE include assumptions that have since changed.<sup>31</sup> SCE's 2014 reliability assessment does not reflect the 33% renewable portfolio assumptions established by the CPUC and the California Energy Commission (CEC). Instead, it focuses on high imports from any resource type outside of SCE's service territory to stress the transmission system during peak load periods. SCE and CAISO both argue, however, that the California renewables target increase from 33% to 50% should be used to analyze whether the FEIR Alternatives are feasible.<sup>32</sup>

Every year, CAISO undertakes a transmission planning process to identify transmission projects to address reliability, cost, and infrastructure needs. The CAISO's 2016 Transmission Plan (2016 Plan) applies more recent planning assumptions, including the 33% renewable portfolio. When the 2016 Plan is modelled, FEIR Alternatives 1 and 2 both result in reliability issues. Relative to the 2014 case, the 2016 Plan has over 1,900 MW more power flowing out of the Tehachapi area north of Mesa Substation, resulting in an increase of over 1,100 MW on the lines directly feeding into Mesa Substation.

We have jurisdiction to render a policy determination as to whether the project must also address all the reliability concerns identified in the CAISO 2015-2016 Transmission Plan. We conclude that both the SCE 2014 case and CAISO's 2016 Plan should be recognized in evaluating the feasibility of the project alternative to ensure a reliable transmission system. The CAISO's power flow studies provide substantial evidence as to the technical infeasibility of FEIR

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<sup>31</sup> SCE-01 at 2:12-14.

<sup>32</sup> EIR-01 at 305-306 and 284-286.

Alternatives 1 and 2. Our policy determination to approve a project that addresses all the reliability concerns identified in the CAISO 2015-2016 Transmission Plan also renders FEIR Alternatives 1 and 2 infeasible.

#### **7.2.3.2. Power Flow Issues**

Although the transmission lines connecting into Mesa Substation will be the same for the proposed project and Alternative 1, material differences between the two create significantly different power flows.<sup>33</sup> In this regard, we do not accept ORA's claim that power flow under Alternative 1 is similar to SCE's proposed project.

SCE's proposed project provides 3,360 MVA of capacity with three independent transformer banks. Alternative 1, by contrast, is a single 1,600 MVA transformer bank with a RAS. Three transformer banks versus one bank do not provide the same impedance pathway between the 500kV and 220kV systems and will not produce similar power flows on the 500kV and 220kV lines.

CAISO also performed studies and analyzed technical aspects of reliability associated with the Proposed Project.<sup>34</sup> Based on its power flow analysis, CAISO also concludes the One and Two Transformer Alternatives result in overloads.<sup>35</sup>

Reliability concerns are evident by examining how power flows in the Serrano Corridor are modeled in the FEIR. SCE's proposed project is needed to

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<sup>33</sup> See, CAISO-01 and 02 (Testimony and Rebuttal Testimony of Sparks) and SCE-01 Testimony of Chinn.

<sup>34</sup> The CAISO modeled the outputs of renewables at the Net Qualifying Capacity values based on peak impact value for corresponding technology consistent with the Assigned Commissioner Ruling on assumptions and scenarios for use in the CAISO transmission planning process.

<sup>35</sup> CAISO-01 at 6:2-10, 7:2-5, 9:4-9, 11:2-10, 11:17-20.

relieve the Serrano Corridor when OTC units retire because the Serrano Corridor is a transmission import path into the Western LA Basin.<sup>36</sup>

The One Transformer Alternative modeling in the FEIR utilized an impedance value of 0.121 per unit.<sup>37</sup> This results in power flows equal to 98% of the emergency rating of existing transmission lines in the Serrano Corridor. The modeling assumes the one 1600 MVA transformer bank at Mesa Substation loaded to 96% of its rating when examined using the 2014 case, which is just below an overload scenario.

Under renewable generation allocations directed by the CPUC and CEC, however, the 0.121 per unit impedance would cause the single transformer bank to overload to 101% and the Serrano Corridor would be at 100%. If impedance is reduced to relieve the transformer bank at Mesa Substation, the Serrano Corridor would increase above 100%. Therefore, raising the modelled impedance would result in reliability issues to the Serrano Corridor, and lowering the modelled impedance would result in reliability issues with the transformer bank. Consequently, based on the 33% renewable portfolio, virtually no impedance value for the transformer offers a reliable solution under the One-Transformer Alternative.

Increasing the impedance value above 0.121 per unit would divert power away from the one transformer bank at Mesa Substation to the Serrano Corridor. This would cause power flows to reach or exceed the emergency rating of those Serrano Corridor transmission lines.

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<sup>36</sup> EIR-01 at Appendix B, Contingencies 4 and 5.

<sup>37</sup> CAISO-01 at 4:2-3.; Electrical impedance (measured in ohms) represents the total opposition that a circuit presents to alternating current.

If impedance is lowered to 0.110 per unit, more flows would be directed to the one transformer bank which would be at 100% of its rating under base case conditions. Any lower impedance will overload the one transformer bank alternative. The 0.121 per unit impedance assumption thus reflects a narrow balancing of the loading of (a) the one transformer bank at Mesa Substation and (b) the transmission lines in the Serrano Corridor. Yet, planning assumptions can change significantly over time and transmission system components need to be designed with enough flexibility to accommodate the changes.

The One Transformer Alternative also includes a Remedial Action Scheme (RAS). Upon the loss of two transmission lines, the RAS will open two other transmission lines in the Serrano Corridor. This will result in the loss of four transmission lines that serve the Western L.A. Basin, and degrade system reliability by making the system less likely to withstand the next contingency. The proposed project with three 1120 MVA transformer banks does not require a RAS, and can reliably serve load under both the 2014 case and 2016 plan.

The Two Transformer Alternative includes two 1120 MVA transformer banks and a RAS. As described in the FEIR, the transformers would have an operating requirement wherein they would be connected in parallel and switched as one. When this alternative was modeled as specified in the FEIR utilizing the 2016 Plan, the Mesa - Laguna Bell line is overloaded to 106%.<sup>38</sup> This is a violation of NERC reliability standards and is less reliable than the Proposed

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<sup>38</sup> SCE-01 at 6:10-12.

Project comprised of three independent 1120 MVA transformers in which the loss of one transformer will not overload the remaining two.<sup>39</sup>

### **7.2.3.3. Once-Through Cooling Retirements Impacts**

As noted in Section 3 above, the FEIR identified three objectives as a basis to evaluate the feasibility of alternatives. Objective 1 addresses violations of reliability standards upon retirement of OTC generation by December 31, 2020. Objective 1 requires that the approved project address anticipated violations of NERC, WECC, and CAISO standards that would occur upon OTC generator retirement by December 31, 2020. Objective 2 requires avoiding the introduction of new reliability standard violations.

Approximately 4,000 MW of additional generation in the Western Los Angeles Basin is to be retired by the year 2020 to comply with State Water Resources Control Board (SWRCB) regulations. The loss of capacity from retired OTC generation and the previous retirement of San Onofre Nuclear Generation Station (SONGS), would stress the existing transmission system and impact its ability to provide reliable service.<sup>40</sup> This occurs under peak electrical demand conditions and abnormal system conditions which cause thermal overloads and voltage collapse.

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<sup>39</sup> SCE-01 at 6:12-15.

<sup>40</sup> Although SONGS' retirement resulted in reliability concerns, SCE has since stated that the Mesa Substation Project would likely not be necessary to maintain reliability unless OTC units are also retired by the end of 2020. (*See*, SCE Opening and Reply Briefs.) We therefore focused on crafting objectives related to impending retirement of OTC units to address reliability concerns and to evaluate alternatives to address those concerns.



The Mesa Substation Project addresses reliability concerns likely to occur only after OTC unit retirement in December 31, 2020.<sup>41</sup> The Mesa 500 kV Substation construction addresses reliability in southern California under abnormal system conditions. If SCE's proposed project is delayed past 2020, the OTC policy compliance dates for gas-fired generation in the Los Angeles Basin would likely need to be extended to preserve reliability. However, there is no guarantee that the SWRCB will extend OTC policy compliance dates.<sup>42</sup>

SCE originally estimated that its proposed project could be constructed in approximately 55 months, but updated its estimates, including refining locations of structures as well as updating civil design and site grading plans. Based on the updates, SCE estimates that its proposed project can be constructed in 48 months with a potential operational date of June 2021.<sup>43</sup>

Although the OTC retirement compliance requirement date is December 31, 2020 for generating plants in SCE's service territory, the system reliability concern does not become critical until the following summer peak loading period, June 1, 2021.<sup>44</sup> Consequently, to timely retire gas-fired generation subject to the OTC policy, the project must be completed and

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<sup>41</sup> The Project would serve the Western Los Angeles Basin ENA in southern Los Angeles County and northern Orange County where most of SCE's load is located. The ENA is also a Local Reliability Area. A Local Reliability Area is an area with constrained ability to import power from elsewhere.

<sup>42</sup> The SWRCB is advised by the Statewide Advisory Committee on Cooling Water Intake Structures to maintain reliability electric service, but the SWRCB itself must approve an adjustment greater than 90 days in the OTC compliance schedule after an evaluation and hearing process.

<sup>43</sup> SCE-01 Lacey Testimony at 9:20-22 and 12:3-7.

<sup>44</sup> SCE-01 at 7:6-10.

energized prior to summer 2021. This date meets the reliability needs resulting from the OTC retirement deadline schedule imposed by the SWRCB.<sup>45</sup>

By contrast, the FEIR Alternatives result in unreasonable delay to completion due to the redesign and engineering work involved. Alternative 1 would result in an approximate 10 month delay with a best-case March 31, 2022 completion date.<sup>46</sup> Alternative 2 would result in an approximate six-month delay with a projected best-case November 30, 2021 completion date.<sup>47</sup> Alternative 3 would result in an approximate 14 month delay with a projected best-case July 31, 2022 completion date.<sup>48</sup> Thus, Alternative 3 is infeasible because the GIS design, construction, and electrification cannot be completed prior to the retirement of Los Angeles Basin OTC generation in December 2020.

Based on these facts, the proposed project could address the OTC policy retirement date substantially earlier than the FEIR Alternatives, and completed in time to meet the OTC retirement deadline imposed by the SWRCB. Because the FEIR Alternatives cannot reasonably meet this deadline schedule, we find that they are infeasible.

Without implementation of the proposed project, OTC retirement would result in violation of NERC, WECC, and CAISO standards. A project that solves these violations could possibly create new violations of NERC, WECC, and CAISO standards. For example, a violation may occur when a transmission line

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<sup>45</sup> SCE characterizes its time estimates as being optimistic, though not unrealistic, providing a best case scenario. SCE's estimates also do not account for the risk of potential environmental delays during the construction of the new substation.

<sup>46</sup> SCE-01 Pendleton Testimony at 14:3-12.

<sup>47</sup> SCE-01 Pendleton Testimony at 14:3-12.

<sup>48</sup> SCE-01 Pendleton Testimony at 17:8-12.

is overloaded between two substations. That transmission line segment could be upgraded to increase its capacity. The overload may then occur, however, on a different transmission segment. Therefore, both the One and Two Transformer Alternatives are not feasible.

#### **7.2.4. Infeasibility Due to Higher Costs of Alternative 3**

Alternative 3 is electrically similar to the Proposed Project, but incorporates a GIS instead of an air-insulated substation at Mesa Substation. Alternative 3 meets NERC, WECC and CAISO transmission planning criteria by mitigating known reliability concerns and not creating new reliability concerns.

Installing and maintaining a GIS, however, will result in materially higher costs. Subsequent to issuance of the FEIR, SCE attempted to quantify cost increases associated with the GIS Alternative.<sup>49</sup> SCE conducted cost comparisons for all four voltage levels of the entire substation as described in the EIR.<sup>50</sup> SCE estimates that the GIS Alternative would cost \$64-\$74 million more than the Proposed Project.<sup>51</sup> Based upon the increased costs and potential for GHG emission increases, we find that Alternative 3 is not a feasible option. Although the One-and-Two Transformer Alternatives are likely similar in cost to the Proposed Project, they are not feasible from a reliability or schedule standpoint, as noted elsewhere in this decision.

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<sup>49</sup> SCE-01 Lacy Testimony at 26:3-4.

<sup>50</sup> See FEIR Chapter 3 "Description of Alternatives" (page 3-14, lines 5- 6)

<sup>51</sup> The One and Two Transformer Alternatives, by contrast, are likely to be similar in cost to the Proposed Project. See, SCE Opening Brief at 29-32.

## **8. Mitigation Measures**

CEQA Guidelines §15091(a) prohibits an agency from approving a project for which an EIR has been certified and which identifies one or more significant environmental effects of the project unless: (1) the project incorporates changes that avoid or substantially lessen the project's significant environmental impacts, (2) such changes are within the responsibility and jurisdiction of another agency who can or will adopt them, or (3) such changes are infeasible. In this case, with the mitigation identified in the Mitigation Monitoring, and Reporting, Program (MMRP)<sup>52</sup> the proposed project will avoid or reduce all significant environmental impacts to less than significant other than aesthetics, air quality and noise impacts during project construction. No party asserts that any of the identified mitigation is infeasible and we have no reason to find otherwise.

## **9. Electric and Magnetic Fields Mitigation**

The Commission has examined EMF impacts in several previous proceedings.<sup>53</sup> We found the scientific evidence presented in those proceedings was uncertain as to the possible health effects of EMFs and we did not find it appropriate to adopt any related numerical standards. Because there is no agreement among scientists that exposure to EMFs 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 its determination of environmental impacts.

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<sup>52</sup> The MMRP is included as Attachment 2.

<sup>53</sup> See D.06-01-042 and D.93-11-013.

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% of the total budgeted project cost that results in an EMF reduction of at least 15% (as measured at the edge of the utility right-of-way).

SCE filed a detailed Field Management Plan (FMP) as Appendix F to its application, based on the proposed project. The FMP provides that the project will utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction and place new substation electrical equipment (such as breakers, switchracks, and buses and underground duct banks) away from the substation property lines closest to populated areas as a no-cost measure.

No party challenged SCE's proposed no-cost/low-cost measures to reduce the potential for exposure to EMFs generated by the proposed project. Accordingly, we find that the FMP complies with the Commission's EMF decisions.

#### **10. Notice to Proceed**

Prior to starting construction on the Project, the Commission will need to approve and issue a notice to proceed (NTP). In order to assist SCE with obtaining the NTP in a timely fashion we have attached a checklist of plans and permits that SCE will need to obtain and submit to the Commission before the

Commission can issue the first NTP.<sup>54</sup> Many of the plans and permits will require SCE to coordinate with other entities other than the Commission.<sup>55</sup> SCE shall submit the necessary plans and permits set forth in Attachment 3 to the Commission's Energy Division within 10 days of receipt.

#### **11. Safety Considerations Pursuant to Pub. Util. Code § 451**

Pub. Util. Code § 451 requires that every public utility must maintain adequate, efficient, just and reasonable service to promote the "safety, health, comfort, and convenience of its patrons, employees, and the public." We have evaluated this application to determine whether approving SCE's permit to construct the Mesa Project raises any safety concerns which the Commission needs to address.

On July 6, 2015 and September 21, 2015 the assigned Administrative Law Judge issued two rulings to request additional information from SCE concerning the safety measures that would be adhered to by SCE during the construction of the Mesa Project. On July 27, 2015, SCE submitted testimony from James MacKenzie and Sandra Blain addressing the requests set forth in the July 6, 2015 ruling. On October 9, 2015, SCE submitted additional testimony from James MacKenzie to address the questions set for the September 21, 2015 ruling.<sup>56</sup>

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<sup>54</sup> This checklist is included in Attachment 3. It is noted that this checklist may not be all inclusive and that there may be additional plans and permits that SCE will need obtain and submit to the Commission prior to the issuance of any NTP. This checklist is included as guidance only in an effort to assist SCE with the issuance of the first NTP in a timely manner. In the event that additional NTPs are necessary, SCE may be required to submit additional information as required by the Commission.

<sup>55</sup> Footnotes 1-7 in Attachment 3 indicates which plans and permits may require coordination with entities other than the Commission.

<sup>56</sup> The testimony is contained in SCE-05 and SCE-06.

Additionally, no parties raised any safety concerns in their opening or rebuttal testimony and no party addressed any safety concerns at the hearing. Therefore, we are confident that as long as SCE complies with the MMRCP and measures set forth in Exhibits SCE-05 and SCE-06, that there are no safety issues that need to be addressed in this decision.

## **12. Reduction of Comment Period**

Pursuant to Rule 14.6(b), all parties stipulated to reduce the 30-day review and comment period required by Pub. Util. Code § 311 to 13 days. Pursuant to the parties' stipulation, comments are due on January 27, 2017 and reply comments are due on January 31, 2017. Comments were filed by \_\_\_\_\_ and reply comments were filed by \_\_\_\_\_.

## **13. Assignment of Proceeding**

Liane M. Randolph is the assigned Commissioner and Gerald F. Kelly is the assigned ALJ in this proceeding.

## **14. Conclusion**

SCE is granted a permit to construct the Mesa 500 kV Substation Facility Project, with mitigation identified in the Mitigation Monitoring, Reporting and Compliance Plan, which is attached to this order. The Commission is the lead agency for environmental review and we find that the Environmental Impact Report for this project meets the requirements of the California Environmental Quality Act. We also conclude that SCE's FMP is in compliance with the Commission's EMF low-cost/no-cost measures. Furthermore, we conclude that the environmentally superior alternatives identified in the EIR are infeasible. We also find that the benefits of the Project outweigh the unavoidable adverse environmental effects and based on these overriding considerations we approve SCE's request for a PTC as set forth in its Application.

**Findings of Fact**

1. The proposed project would have significant impacts to aesthetics, air quality and noise during the project construction that can be reduced, but not avoided, with the mitigation measures identified in the MMRP.
2. The proposed project would substantially degrade the existing visual character or quality of the site and its surroundings.
3. The proposed project would violate air quality standards or contribute substantially to an existing or projected air quality violation during the construction of the project.
4. The proposed project would expose sensitive receptors to substantial pollutant concentrations during the construction of the project.
5. The proposed project would result in noise levels in excess of standards established in the local general plan or noise ordinance during the construction of the project.
6. The proposed project would result in substantial temporary or periodic increase in ambient noise levels in the project vicinity during the construction of the project.
7. The proposed project would not have any significant environmental impacts on biological resources; cultural and paleontological resources; geology, soils and minerals; hazards and hazardous materials; hydrology and water quality; public services and utilities; and traffic and transportation that cannot be mitigated to less than significant level with the mitigation measures identified in the MMRP.
8. The proposed project would have no impact or a less-than-significant impact on GHG, land use, population and housing and recreation.



9. The One-Transformer Bank (1600 MVA Substation), Two-Transformer Bank (1120 MVA) Transformer and Gas-Insulated Substation are all alternatives to the proposed project that would avoid or substantially lessen at least one of the significant impacts of the proposed project.

10. The One-Transformer Bank (1600 MVA) is the environmentally superior project alternative.

11. Because the One and Two Transformer Alternatives result in reliability issues, the One-and-Two Transformer Alternatives are not feasible.

12. As the basis for finding the identified alternatives to be potentially feasible, the FEIR relied only on SCE's 2014 reliability assessment. The 2014 assessment, however, does not reflect 33% renewable portfolio assumptions as established by the CPUC and the California Energy Commission (CEC).

13. During peak periods the grid relies on significant contributions from renewable resources to balance load.

14. Both the SCE 2014 case and CAISO's 2016 Plan need to be recognized in evaluating the feasibility of the project alternatives to ensure a reliable transmission system.

15. When the 33% renewable portfolio assumptions are modelled, FEIR Alternatives 1 and 2 both result in reliability issues. For this reason, FEIR Alternatives 1 and 2 are not feasible.

16. Failure to recognize the 33% renewable portfolio assumptions in the design of the One-and-Two Transformer Alternatives would result in immediate initiation of an additional transmission project to install additional 500/220kV transformer capacity at Mesa Substation.

17. Although the transmission lines going into Mesa Substation will be the same for the proposed protect and Alternative 1, material differences between the two create significantly different power flows.

18. The One-and-Two Transformer Alternatives result in power overloads.

19. Approximately 4,000 MW of additional generation in the Western Los Angeles Basin is expected to be retired by the year 2020.

20. To timely retire gas-fired generation subject to the OTC policy, the proposed project must be completed and energized prior to summer 2021.

21. SCE's proposed project can be completed in time to meet the OTC retirement deadline imposed by the SWRCB.

22. The FEIR Alternatives cannot reasonably meet this deadline schedule and are not feasible.

23. Under FEIR Alternative 3, installing and maintaining a gas-insulated substation at the Mesa Substation will result in materially higher costs compared to SCE's proposed project and could result in the creation of significant GHG concerns.

24. The Project and its identified mitigation measures in the MMRP are feasible and should be approved.

25. The benefits of the proposed project outweigh its significant and unavoidable impacts and therefore overriding considerations exist that support the approval of the proposed project. These benefits include:

- a) policy compliance in a timely manner relating to the schedule for once-through-cooling (OTC) units;
- b) maintaining NERC, WECC, and CAISO reliability standards;
- c) facilitating California's progress towards meeting RPS goals;

- d) promoting prudent system planning (i.e., not triggering the need for an immediate capacity upgrade as the One-and Two Transformer Alternatives would);
- e) decreasing environmental impacts associated with OTC by facilitating OTC retirement sooner than other alternative; and
- f) building a project that is economically cost effective.

26. The proposed project would enable SCE to address anticipated violations of North American Electric Reliability Corporation (NERC) Standard TPL-001-04 (NERC 2015), Western Electricity Coordination Council (WECC) Regional Business Practice TPL-001-WECC-RBP-2 (WECC 2011) and CAISO Planning standards that would occur by December 31, 2020, of generators that use Once-Through Cooling (OTC).

27. The proposed project will avoid introduction of new violations of NERC, WECC, and CAISO standards.

28. SCE's FMP incorporates many feasible no-cost and low-cost measures to reduce potential EMF impacts such as utilizing double-circuit construction that reduces spacing between circuits as compared with single-circuit construction and placing new substation electrical equipment (such as breakers, switchracks, and buses and underground duct banks) away from the substation property lines closest to populated areas.

### **Conclusions of Law**

1. The EIR was completed in compliance with CEQA.
2. The EIR was presented to the Commission, and the Commission reviewed and considered the information in the EIR prior to approving the project.
3. The EIR reflects the Commission's independent judgment and analysis on all material matters.

4. The project provides the benefit of enabling SCE to address anticipated violations of North American Electric Reliability Corporation (NERC) Standard TPL-001-04 (NERC 2015), Western Electricity Coordination Council (WECC) Regional Business Practice TPL-001-WECC-RBP-2 (WECC 2011) and CAISO Planning standards that would occur by December 31, 2020, of generators that use Once-Through Cooling (OTC) and avoids introduction of new violations of NERC, WECC, and CAISO standards.

5. CEQA provides that public agencies should not approve projects as proposed if there are feasible alternatives available which would substantially lessen the significant environmental effects of such projects. CEQA also provides, however, that if specific economic, social or other conditions or considerations make infeasible such project alternatives, individual projects may be approved in spite of one or more significant effects thereof.

6. SCE's FMP comports with the Commission's policies regarding the mitigation of EMF effects.

7. The environmentally superior alternatives identified in the EIR are rejected as infeasible.

8. SCE should be granted a permit to construct the Mesa 500kV Substation Project with the mitigation identified in the MMRP, which is attached to this decision.

9. This decision should be effective today.
10. Application 15-03-003 should be closed.

## O R D E R

### IT IS ORDERED that:

1. The Environmental Impact Report for the Mesa 500 kV Substation Project is certified as having been completed in compliance with the California Environmental Quality Act, reviewed and considered by the California Public Utilities Commission (Commission) prior to approving the project, and reflective of the Commission's Independent judgment and analysis.

2. Southern California Edison Company (SCE) is granted a permit to construct the Mesa 500 kilo Volt Substation Project, with the mitigation identified in the Mitigation Monitoring, Compliance and Reporting Plan, which is attached to this decision.

3. Energy Division may approve requests by Southern California Edison (SCE) for minor project refinements that may be necessary due to final engineering of the Mesa 500 kilo Volt Substation Project so long as such minor project refinements are located within the geographical boundary of the study area of the Environmental Impact Report 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 environmental document; conflict with any mitigation measure or applicable law or policy; or trigger an additional permit requirement.

4. Southern California Edison Company shall seek any other project refinements by a petition to modify this decision.

5. To assist with a timely approval of the Notice To Proceed, Southern California Edison Company must submit to the California Public Utilities Commission's Energy Division any plans or permits received from other entities, as set forth in Attachment Number 2 within ten days of receipt.

6. Application 15-03-003 is closed.

This order is effective today.

Dated \_\_\_\_\_, at San Francisco, California.

# **ATTACHMENT 1**

**Components of the Proposed Project**

<b>Component</b>	<b>Quantity/ Dimensions</b>	<b>Proposed Project Specifications</b>
<b>Mesa 500-kV Substation</b>		
New 500/220/66/16-kV substation	72.1 acres	<ul style="list-style-type: none"> <li>Replaces existing 220/66/16 kV Mesa Substation.</li> <li>Located within applicant-owned property (86.2 acres) in the City of Monterey Park.</li> <li>Staffed, automated substation.</li> <li>Operating capacity: 3,360 MVA at 500/220-kV; 840 MVA at 220/66-kV; and 56 MVA at 66/16-kV.</li> <li>Potential future capacity: 4,800 MVA at 500/220 kV; 1,120 at 220/66-kV; and 112 MVA at 66/16 kV.<sup>(1)</sup></li> <li>Construction would be conducted in three temporal phases: <ul style="list-style-type: none"> <li>Phase 1: Initial Site Development (33.4 acres) and start of 220/66-kV Switchrack</li> <li>Phase 2: 220/66-kV Switchrack Expansion (8 acres)</li> <li>Phase 3: Existing Mesa Substation Decommissioning (40 acres) and build out of 500-kV Switchrack.</li> </ul> </li> </ul>
New and replaced steel switchracks	<u>500 kV</u> : 8.2 acres	<ul style="list-style-type: none"> <li>Height: 65 feet. Area: 650 feet long and 550 feet wide.</li> <li>Positions: 6. Width per position: 90 feet.</li> </ul>
	<u>220 kV</u> : 6.8 acres	<ul style="list-style-type: none"> <li>Height: 40 feet. Area: 900 feet long and 330 feet wide.</li> <li>Positions: 14. Width per position: 50 feet.</li> </ul>
	<u>66 kV</u> : 1.4 acres	<ul style="list-style-type: none"> <li>Height: 22 feet. Area: 460 feet long and 135 feet wide.</li> <li>Positions: 20. Width per position: 22 feet.</li> </ul>
	<u>16 kV</u> : 0.13 acres	<ul style="list-style-type: none"> <li>Height: 18.5 feet. Area: 162 feet long and 34 feet wide.</li> <li>Positions: 18. Width per position: 8 feet.</li> </ul>
Transformer banks	<u>500/220 kV</u> : 11 transformers (0.25 acres total)	<ul style="list-style-type: none"> <li>Oil-filled, single-phase, 373 MVA transformers installed in three 1120 MVA transformer banks.</li> <li>35-foot-high transformers.</li> <li>27,000 gallons of oil per transformer.</li> </ul>
	<u>220/66 kV</u> : 3 transformers (0.06 acres total)	<ul style="list-style-type: none"> <li>Oil-filled, three-phase, 280 MVA transformers.</li> <li>27-foot-high transformers.</li> <li>27,000 gallons of oil per transformer.</li> </ul>
	<u>66/16 kV</u> : 2 transformers (0.04 acres total)	<ul style="list-style-type: none"> <li>Oil-filled, three-phase, 28 MVA transformers installed in one transformer bank.</li> <li>14-foot-high transformers.</li> <li>25,000 gallons of oil per transformer.</li> </ul>
New permanent buildings	Two buildings: <ul style="list-style-type: none"> <li>Operations</li> <li>Test and Maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Operations building: 25 feet tall. 15,000 square feet.</li> <li>Test and Maintenance Building: 35 feet tall, 16,000 square feet.</li> <li>Components: pre-engineered metal building shell, metal panel exterior walls, windows, and metal doors.</li> <li>Both buildings include permanent restrooms/lockers.</li> </ul>
Mechanical and equipment rooms (MEER)	Two MEERs: <ul style="list-style-type: none"> <li>Senior</li> <li>Junior</li> </ul>	<ul style="list-style-type: none"> <li>Senior MEER: connected to 500-, 220-, and 66-kV switchracks.</li> <li>Junior MEER: connected to 16-kV switchrack.</li> <li>Metal framing, structural steel, concrete masonry units.</li> </ul>
Microwave tower	Four concrete	<ul style="list-style-type: none"> <li>Pile dimensions: 7 feet in diameter, 45 feet deep.</li> </ul>



**Components of the Proposed Project**

<b>Component</b>	<b>Quantity/ Dimensions</b>	<b>Proposed Project Specifications</b>
foundation (future use)	piles	<ul style="list-style-type: none"> <li>Separation between piles: 29 feet.</li> </ul>
Access Driveways	Two permanent access driveways; one temporary driveway	<ul style="list-style-type: none"> <li>Main entrance: Potrero Grande Drive near Greenwood Avenue (50 feet wide).</li> <li>Secondary/Emergency: East Markland Drive (25 feet wide).</li> <li>Temporary construction access: Potrero Grande Drive near Atlas Avenue.</li> </ul>
MWD water line relocation	2,700 feet removed 3,200 feet installed	<ul style="list-style-type: none"> <li>Removal of existing 72-inch-diameter waterline.</li> <li>Replacement: 84-inch-diameter waterline west of the current alignment.</li> </ul>
Telephone buildings and equipment relocation	Two sets of components	<ul style="list-style-type: none"> <li>Third-party cellular telephone buildings, tower, and antennas.</li> <li>Proposed location: northwest of substation property.</li> </ul>
Groundwater monitoring wells decommissioning	10 Monitoring Wells	<ul style="list-style-type: none"> <li>Validation of no obstructions interfering with filling and sealing each well.</li> <li>Removal of the dedicated pump, associated tubing, and lines from each well.</li> <li>Filling of each well casing and filter pack with sealing material consisting of a bentonite grout and by using a tremie pipe.</li> <li>Drilling of the borehole to a depth of 10 feet below ground surface to remove the upper casing and annular materials.</li> <li>Sealing of the resultant borehole from bottom to top with bentonite slurry.</li> </ul>
<b>500/220-kV Transmission Line Features (Overhead)</b>		
<b>Main Project Area</b>		
500-kV transmission line	One line loop-in	<ul style="list-style-type: none"> <li>Re-align and connect the existing single-circuit Mira Loma-Vincent 500-kV line into the new proposed 500-kV switchrack at Mesa Substation.</li> </ul>
	Two LSTs; Two Racks	<ul style="list-style-type: none"> <li>Remove three LSTs and construct four 500-kV structures (two LSTs; 2 racks) in the ROW adjacent to Mesa Substation.</li> </ul>
220-kV transmission lines	Two line loop-in	<ul style="list-style-type: none"> <li>Re-align and connect the existing Goodrich-Laguna Bell and Laguna Bell-Rio Hondo 220-kV transmission lines into the new 220-kV switchrack at Mesa Substation.</li> </ul>
	Eight lines relocation	<ul style="list-style-type: none"> <li>Construct new overhead getaways to relocate eight existing 220-kV transmission lines into the new proposed 220-kV switchracks at Mesa Substation.</li> </ul>
	Remove 41 structures	<ul style="list-style-type: none"> <li>Remove 41 structures (29 LSTs; 4 poles; 8 racks) in the ROW adjacent to Mesa Substation.</li> </ul>
	Construct 27 structures	<ul style="list-style-type: none"> <li>Construct 23 structures (9 LSTs; 1 pole; 5 TSPs; 8 structures) in the ROW adjacent to Mesa Substation. Construct four temporary ESPs in the ROW adjacent to the Mesa Substation.</li> </ul>
<b>North Area: City of Pasadena</b>		

**Components of the Proposed Project**

<b>Component</b>	<b>Quantity/ Dimensions</b>	<b>Proposed Project Specifications</b>
220-kV transmission lines	One temporary structure	<ul style="list-style-type: none"> <li>Install temporary structure (110 to 140 feet tall) to connect the Eagle Rock-Mesa 220-kV transmission line to Goodrich Substation.</li> <li>Work area required: 200 feet by 200 feet.</li> <li>Structure would maintain a second line of service to the City of Pasadena when the Goodrich-Laguna Bell 220-kV transmission line is temporarily out of service during its reconnection to the new proposed Mesa Substation.</li> </ul>
<b>South Area: City of Commerce</b>		
220-kV structure replacement	One LST	<ul style="list-style-type: none"> <li>Replace existing LST on the Laguna Bell-Mesa No. 1 220-kV Transmission Line to maintain compliance with phase to ground clearance requirements (G.O. 95) when increasing the circuit's capacity rating.</li> </ul>
<b>66-kV Subtransmission Line Features (Overhead and Underground)</b>		
<b>Main Project Area</b>		
Relocation within Mesa Substation	16 overhead circuits	<ul style="list-style-type: none"> <li>Relocation of existing 66-kV subtransmission circuits into the new 66-kV switchrack at Mesa Substation.</li> </ul>
Structure removal	76 poles and underground line	<ul style="list-style-type: none"> <li>Removal of 76 existing 66-kV subtransmission structures and 2,000 feet of underground conductor.</li> </ul>
New overhead structures	23 new TSPs	<ul style="list-style-type: none"> <li>Double-circuit structures: 50 to 130 feet high, 3 to 5 feet in diameter. Concrete foundations: 5 to 7 feet diameter, 20 to 40 feet depth.</li> <li>Conductor: 954 kcmil stranded aluminum conductor <sup>(2)</sup>.</li> </ul>
Temporary structures	8 temporary wood poles	<ul style="list-style-type: none"> <li>Construct 8 overhead, temporary wood poles</li> </ul>
New underground structures and conduits	4.2 miles of trench and 27 new vaults	<ul style="list-style-type: none"> <li>17 vaults within Mesa Substation site and <del>10</del>15 vaults outside the substation perimeter.</li> </ul>
<b>16-kV Distribution Lines (Underground)</b>		
<b>Main Project Area</b>		
Underground lines within Mesa Substation site	Five distribution lines	<ul style="list-style-type: none"> <li>Relocation of existing 16-kV distribution lines into new proposed 16-kV switchracks.</li> </ul>
Underground lines outside Mesa Substation site	1,300 feet of underground lines	<ul style="list-style-type: none"> <li>Four new vaults and five duct banks using six 5-inch conduits.</li> <li>Duct bank dimensions: 2 feet wide and 45 inches deep.</li> </ul>
<b>South Area: City of Bell Gardens</b>		
Street light source line conversion	Three spans of existing conductor	<ul style="list-style-type: none"> <li>Conversion of existing street light conductor from overhead to underground in Loveland Street, City of Bell Gardens.</li> <li>Installation of approximately three pullboxes and approximately 300 feet of one 3-inch conduit between Toler Avenue and Darwell Avenue.</li> </ul>
<b>Telecommunications (Overhead and Underground)</b>		
<b>Main Project Area</b>		

**Components of the Proposed Project**

<b>Component</b>	<b>Quantity/ Dimensions</b>	<b>Proposed Project Specifications</b>
Structure relocations within Mesa Substation site	One existing and two new lines	<ul style="list-style-type: none"> <li>Relocate existing overhead and underground telecom lines using eight existing vaults and six manholes.</li> <li>Install two new lines to increase circuit diversity.</li> </ul>
<b>Main Project Area</b>		
Telecommunications Route 1	Total route length: 3.5 miles	<ul style="list-style-type: none"> <li>Installation of new telecom line between existing 220-kV LST near Darlington Street in the City of Rosemead and North Wilcox Avenue in City of Montebello.</li> <li>This route would use existing manholes and utility poles.</li> <li>Proposed new cable: <ul style="list-style-type: none"> <li>Overhead: 2.7 miles (existing poles)</li> <li>Underground: 0.8 miles (new conduit)</li> </ul> </li> </ul>
Telecommunications Route 2	Route lengths: 2A: 2.4 miles 2B: 1.5 miles  Total: 3.9 miles	<ul style="list-style-type: none"> <li>Installation of new telecom line using existing structures along two parallel routes: <ul style="list-style-type: none"> <li><b>Route 2A:</b> starts in the southwestern limit of Mesa Substation site (City of Monterey Park) and ends at the intersection of North Montebello Road and Lincoln Avenue, near Harding Substation (City of Montebello).</li> <li><b>Route 2B:</b> starts southeast the Mesa Substation site in North Wilcox Avenue and ends at the intersection of North Montebello Road and Lincoln Avenue, near Harding Substation (City of Montebello).</li> </ul> </li> <li>Existing telecommunications line would be removed from Route 2A prior to installation of new telecommunications line on Route 2B; then, new telecommunications line would be added to Route 2A.</li> <li>Overhead route: 3.0 miles</li> <li>Underground route: 0.9 miles</li> </ul>
Telecommunications Route 3	Total route length: 4.2 miles	<ul style="list-style-type: none"> <li>New telecommunication line between an existing 220-kV LST in the Whittier Narrows Natural Area near Durfee Avenue (Unincorporated Los Angeles County) and the intersection of North Montebello Road and West Avenida De La Merced (City of Montebello) then to continue to Mesa substation transitioning back to existing conduit and existing overhead.</li> <li>New overhead route: 3.9 miles.</li> <li>New underground route: 0.3 miles.</li> </ul>
Duct banks and vaults along Telecommunications Routes	18 existing vaults and 8-new vaults; 1.8 miles of new duct bank	<ul style="list-style-type: none"> <li>Installation of existing and new underground duct banks.</li> <li>Duct banks: two 5-inch conduits per bank, spacers and concrete.</li> <li>Vaults: 5 feet wide by 5 feet long and 6 feet deep.</li> </ul>
<b>Minor Modifications to Existing Substations</b>		
Vincent, Pardee, and Walnut Substations <sup>(3)</sup>	Telecom line rerouting	<ul style="list-style-type: none"> <li>Installation of new conduits within substation perimeter to provide diverse fiber optic routes.</li> <li>Maximum duration: 2 weeks per location.</li> </ul>

**Components of the Proposed Project**

<b>Component</b>	<b>Quantity/ Dimensions</b>	<b>Proposed Project Specifications</b>
		<ul style="list-style-type: none"> <li>• Export Quantities:               <ul style="list-style-type: none"> <li>– Vincent and Walnut Substations: 10 cubic yards.</li> <li>– Pardee Substation: 5 cubic yards.</li> </ul> </li> <li>• Vehicle use: 50 trips per week.</li> </ul>
Laguna Bell Substation	220-kV equipment replacement	<ul style="list-style-type: none"> <li>• Replacement of 220-kV switchrack equipment and upgrade of line protection for the future Laguna Bell-Mesa No. 1 and No. 2 transmission lines.</li> <li>• Duration: 7 weeks (Temporal Phase 1: 4 weeks; Temporal Phase 2: 3 weeks).</li> <li>• Vehicle use:               <ul style="list-style-type: none"> <li>– Temporal Phase 1: 100 trips per week.</li> <li>– Temporal Phase 2: 25 trips per week.</li> </ul> </li> <li>• No land disturbance associated with equipment replacement and upgrades.</li> </ul>
Lighthipe Substation	220-kV equipment replacement	<ul style="list-style-type: none"> <li>• Replacement of 220-kV switchrack equipment and upgrade of line protection for the 220-kV Lighthipe-Mesa transmission line.</li> <li>• Duration: 7 weeks (Temporal Phase 1: 4 weeks; Temporal Phase 2: 3 weeks).</li> <li>• Vehicle use:               <ul style="list-style-type: none"> <li>– Temporal Phase 1: 100 trips per week.</li> <li>– Temporal Phase 2: 25 trips per week.</li> </ul> </li> <li>• No land disturbance associated with equipment replacement and upgrades.</li> </ul>

**Components of the Proposed Project**

<b>Component</b>	<b>Quantity/ Dimensions</b>	<b>Proposed Project Specifications</b>
Other substations	Equipment upgrades	<ul style="list-style-type: none"> <li>• Upgrade 220-kV and 66-kV protection relays and/or telecommunications equipment inside existing relay houses and/or MEERs.</li> <li>• No land disturbance associated as works would involve replacement of relays on existing support racks.</li> <li>• Vehicle use: 5 vehicle trips (mainly crew vehicles) would be associated with each satellite location.</li> </ul>

Notes:

- (1) The acreage associated with transformer pads is analyzed in the EIR, but one space would not contain a transformer bank. A full analysis of potential future capacity would be speculative, as the applicant has indicated in the Proponent’s Environmental Assessment that capacity would be expanded based on future demand, which is not defined and is often unpredictable in the long term given the number of variables affecting demand, such as energy efficiency, distributed generation, and demand response.
- (2) A circular mil (cmil) is a standard unit of measure used for electrical systems that refers to the area of the cross section of larger conductor sizes. One cmil is equal to the area of a circle with a 1-mil diameter, and 1 kcmil is equal to 1,000 cmils. In general, a larger diameter conductor is capable of greater electrical carrying capacity than smaller diameter conductor (Grigsby 2001).
- (3) The applicant would conduct conduit installation work at Goodrich Substation as part of a separate project currently being negotiated with the City of Pasadena. However, the applicant has stated that if this separate project does not come to fruition, the identified conduit work would be performed as part of the Mesa 500-kV Substation Project, as indicated in Attachment 3-B of the Proponent’s Environmental Assessment. In either case, the estimated construction duration, export quantities, and vehicle trips would be similar to the values shown for Vincent and Walnut Substations. At the moment of publication of this Draft EIR, the applicant is still negotiating with the City of Pasadena the proposed conduit installation. Therefore, the Draft EIR analyzes impacts of conduit installation at Goodrich Substation as part of the proposed project.

Key:

- cmil circular mil
- kV kilovolt
- kcmil 1,000 circular mil units (see definition in the Notes section above)
- LST lattice steel tower
- MEER Mechanical Electrical Equipment Room
- MVA megavolt amperes
- ROW right-of-way
- TSP tubular steel pole

(END OF ATTACHMENT 1)

# **ATTACHMENT 2**

## Mitigation Monitoring and Reporting Plan

Pursuant to Public Resources Code Section 21081.6 and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines, when an agency finds that mitigation measures (MMs) have been required in, or incorporated into, a project to avoid or substantially lessen its significant environmental effects, the agency must adopt a program for monitoring or reporting on such mitigation measures. The purpose of this Mitigation Monitoring and Reporting Plan (MMRP) is to ensure effective implementation of the applicant proposed measures (APMs) and mitigation measures required by the California Public Utilities Commission (CPUC) that Southern California Edison (the applicant) has agreed to implement as part of the proposed Mesa 500-kilovolt (kV) Substation Project (proposed project). The MMRP, which is outlined in Table 1-1, includes:

- Each significant impact identified in the Environmental Impact Report (EIR);
- APMs and mitigation measures that the applicant is required to implement as part of the proposed project;
- Monitoring requirements;
- Timing for implementation of APMs and mitigation measures;
- Indicators for determining the effectiveness of implementation of APMs and MMs
- Reporting requirements.

The MMRP contains the approach for mitigation and APM implementation. If the CPUC approves the proposed project, a more detailed Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) will be developed. The MMCRP is how CPUC would implement the MMRP.

### 1.0 Agency Jurisdiction

The California Public Utilities Code gives authority to the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is CPUC practice, pursuant to its statutory responsibility, to protect the environment and require proper implementation, monitoring, and reporting of mitigation measures stipulated as conditions of approval. Public Resources Code (PRC) section 21081.6 requires that a public agency adopt a mitigation monitoring or reporting program when it approves a project for which an EIR has been prepared and that would result in significant adverse environmental effects.

CEQA Guidelines Section 15097 describes agency requirements for mitigation monitoring and reporting. The CPUC would address the requirements of PRC § 21081.6 when it takes action on SCE's application for a Permit to Construct. If the Commission approves the Proposed Project or an alternative, it would adopt the MMRP and include the mitigation measures as a condition of approval. The MMRP would be incorporated into the MMCRP. The MMCRP serves as a working guide to ensure that the measures adopted to mitigate or avoid significant impacts of a project are implemented, and to report on their implementation. The MMCRP would contain information from the Final EIR and specific protocols, guidelines, and standard procedures for monitoring, compliance, and reporting activities of the project proponent and the CPUC and its designated monitors.

## **1.1 Roles and Responsibilities**

This section outlines roles and responsibilities specific to the MMRP. More specific details regarding project roles will be included in the MMCRP.

### **1.1.1 CPUC Project Manager, Compliance Manager, and Compliance Monitors**

The CPUC Energy Division Project Manager will assign monitoring and reporting responsibilities to a third-party contractor as described below. The third-party contractor will assign a Compliance Manager (CPUC Compliance Manager) as the designated point of contact for both the CPUC and the applicant, who will report to the CPUC Project Manager. The CPUC Compliance Manager will oversee one or more Compliance Monitors, who are the field personnel responsible for observing and reporting the applicant's compliance with the terms and conditions of the CPUC Permit to Construct during construction of the proposed project. The number of Compliance Monitors and frequency of site inspections will depend on the number and locations of concurrent construction activities. The Compliance Manager and Compliance Monitors will document compliance through daily site inspection forms, frequent phone and email contact, and regular reports to the CPUC Project Manager. The third-party contractor will notify the CPUC Project Manager of noncompliance situations and may suggest measures to help resolve the issue. The applicant must submit all requests for minor project deviations to the CPUC Project Manager via the third party contractor for review. When a mitigation measure requires that a study or plan be developed during the design or pre-construction phase of the project, the applicant must submit the final study or plan to the CPUC Project Manager via the third party contractor.

### **1.1.2 Applicant and Applicant's Environmental and Construction Contractors**

#### **Applicant**

The applicant is responsible for implementing all adopted APMs and mitigation measures listed in the adopted MMRP. The applicant may elect to hire an environmental contractor to assist with environmental compliance and serve as environmental monitors during construction. The applicant's monitors ("first-party" monitors) will monitor compliance with the MMCRP, present worker environmental awareness program (WEAP) training, and help interpret APMs and mitigation measures and prevent and correct compliance problems. SCE's contractors would also be responsible for adhering to the project's environmental conditions.

#### **Applicant's Construction Management Team**

The applicant's construction management team will ensure that all construction activities conform to the details outlined in the construction contract, the schedule, and all project environmental and permit conditions. The construction management team will communicate with the Construction Contractor to ensure that noncompliance issues are resolved in a timely manner and that similar issues are prevented in the future. The construction management team mediates communication between the CPUC and Construction Contractor.

### **1.1.3 Enforcement**

The CPUC Compliance Monitor, under the supervision of the CPUC Compliance Manager and on behalf of the CPUC Project Manager, is responsible for ensuring that monitoring procedures outlined in project APMs and mitigation measures are followed as required. The CPUC Compliance Monitor will document all instances of noncompliance, and the CPUC Compliance Manager will



discuss solutions to noncompliance with the applicant and the applicant's construction management team. Copies of reports documenting noncompliance will be supplied to the applicant and the CPUC. The CPUC Energy Division has the authority to halt any construction, operation, or maintenance activity associated with the project that deviates from the approved project description or violates adopted APMs or mitigation measures.

The CPUC Energy Division does not conduct enforcement actions related to non-compliance with APMs, mitigation measures, or Commission Orders or Decisions. The CPUC Safety and Enforcement Division (SED) investigates and conducts enforcement actions related to noncompliance. Any enforcement actions related to non-compliance with APMs or mitigation measures would be taken by SED pursuant to the process created by the Commission in Resolution E-4550 (May 9, 2013). Per Resolution E-4550, the CPUC may impose fines in the event the applicant does not comply with the Permit to Construct's conditions of approval. CPUC staff will determine whether a fine is appropriate for non-compliance events consistent with Resolution E-4550.

## **1.2 Communication and Reporting**

Communication is a critical component of a successful environmental compliance program. The CPUC compliance staff, the applicant, and the applicant's contractors must maintain regular communication throughout construction to avoid noncompliance, project delays, and work stoppages. The applicant and its contractors must coordinate closely with the CPUC's Compliance Manager and Monitors to resolve compliance issues in a timely manner and accurately disseminate the construction plan and results of resource surveys. A detailed communication protocol will be developed as part of the MMCRP prior to the commencement of construction.

### **1.2.1 Monthly Environmental Compliance Report**

The applicant will prepare a monthly environmental compliance report for the CPUC. The CPUC Compliance Manager will review this report to ensure that the status of APMs and mitigation measures is consistent with observations in the field. The monthly environmental compliance report will keep all parties informed of construction progress and schedule and any noncompliance incident resolution.

### **1.2.2 Agency Coordination**

Several local, state, and federal agencies have jurisdiction over portions of the project and may issue permits with conditions that must be followed during construction. In addition, certain APMs and mitigation measures in the Final EIR were written based on agency input. The applicant will be responsible for coordinating with applicable agencies to meet environmental and permit conditions and notifying agencies of noncompliance incidents if required. The CPUC Project Manager and Compliance Manager may facilitate these discussions as appropriate and may request copies of email correspondence, contact reports, or other documentation of conversations between the applicant and an agency to document compliance.

## **1.3 Project Changes**

This section describes the CPUC's process for staff approval of project changes that may be necessary due to changes needed after the applicant's final engineering of elements of the proposed project or if circumstances arise during the course of construction that require deviations from the

project as approved. The CPUC, along with the CPUC Compliance Manager, would evaluate any proposed deviations from the approved project to determine if they are consistent with approved CEQA requirements. Depending on its nature, a requested deviation would be processed as a Minor Project Change (MPC) or be the subject of a Petition for Modification (PFM) submitted by the applicant.

MPCs would be strictly limited to minor project changes that do not trigger additional permit requirements, do not increase the severity of an impact or create a new impact, and are within the geographic scope of the EIR.

If a project change would create or have the potential to create a new significant impact, increase the severity of an impact, or occur outside the geographic area evaluated in the EIR, the applicant would be required to submit a PFM. The CPUC would evaluate the PFM under CEQA, as appropriate, to determine what form of supplemental environmental review would be required.

Requests for CPUC Project Manager/Compliance Manager approval of a change must be made in writing and should include the following:

- A detailed description of the proposed change(s), including an explanation of why the deviation is necessary;
- Identification of the APM, mitigation measure, project parameter, or other project stipulation for which the change is being requested, and citations for associated approved documents;
- Photographs, maps, and other supporting documentation illustrating the difference between the existing conditions in the project area, the approved project, and the proposed change;
- The potential impacts of the proposed change, including a discussion of each environmental issue area that could be affected by the deviation with accompanying verification, and whether there would be an increase in significant impacts on resources affected by the project and/or any new significant impacts, after application of previously adopted APM(s) and/or mitigation measure(s);
- Whether the change conflicts with any APMs or mitigation measures;
- Whether the change conflicts with any applicable guideline, ordinance, code, rule, regulation, order, decision, statute, or policy; and
- The date of expected construction at the location of the change.

The CPUC Project Manager or Compliance Manager may request additional information, agency consultations, or a site visit in order to determine the appropriate vehicle for approval and to process the request.

## 1.4 Dispute Resolution

The following procedure will be observed for dispute resolution:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the CPUC Project Manager or Compliance Manager for resolution. The CPUC Project Manager or Compliance Manager will attempt to resolve the dispute. If the dispute can be

resolved by SCE, then the CPUC's Project Manager would direct the person to SCE. If the complaint is received by SCE's Construction Relations Officer pursuant to MM NV-1 (Noise Control Plan), the complaint would be handled in accordance with MM NV-1.

- **Step 2.** Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the proposed project or adopted MMRP.
- **Step 3.** If a dispute or complaint regarding the implementation or evaluation of the adopted MMRP cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC Executive Director or his/her designee. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the CPUC Executive Director or designee(s) shall meet or confer with the filer and other affected participants for the purposes of resolving the dispute. The CPUC Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on the filer and other affected participants.
- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the resolution, such party(ies) may appeal it to the CPUC via a procedure to be specified by the CPUC.

Parties may also seek review by the CPUC through existing procedures specified in the CPUC Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the foregoing procedure.

## 1.5 Final Mitigation Monitoring and Reporting Plan

This Final MMRP incorporates changes to the proposed project or mitigation measures that were made as a result of public review of the Draft EIR and further consideration of the proposed projects by the CPUC.

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APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>ng. For Staging Yards 1, 2, 6, and 7, the applicant shall at a minimum screen most views of the interiors of existing fences or other effective screening. Perimeter screening fences will be a minimum of 6 feet high and dark green, brown, or black) fabric or other material that provides at least 50 percent screening and covers</p> <p><b>and Ground Disturbance and Improve Disturbed Areas.</b> Clearing and ground disturbance required for limited to, access roads, pulling sites, construction and maintenance pads, and construction laydown areas, shall be applicant shall improve all disturbed areas not required for operation and maintenance to pre-construction feasible. Improvement would not be feasible if, for example, a landowner other than SCE does not wish the and new or rebuilt transmission structures that must be cleared during the construction process or other areas of and and revegetated to an appearance that would replicate or improve pre-construction conditions. The CPUC elements of disturbed areas. For all paved areas (e.g., streets, sidewalks, and parking areas) disturbed by restore these areas in compliance with permits for work within these areas.</p> <p><b>netic Treatment along Potrero Grande Drive.</b> Prior to construction, the applicant shall prepare a Landscape t will, at a minimum, provide vegetative screening, with the use of California native and/or drought tolerant treatments (e.g., decorative caps on block walls) along Potrero Grande Drive and in the vicinity of the new entry de aesthetic treatment of the operations and test and maintenance buildings and their immediate Aesthetic Treatment Plan shall not conflict with NERC CIP requirements in CIP-014-2 (Physical Security) or treatments along Potrero Grande Drive shall include design enhancements for the masonry screening wall, aces, and planting areas and may include raised and median planters or other design enhancements. Aesthetic rest and maintenance buildings and their immediate surroundings shall include improved color selection and capping of their surroundings that will help screen views of the buildings and blend them with their r built elements shall be flat and non-reflective. The final Landscape and Aesthetic Treatment Plan along pared by a professional landscape architect licensed to work in California. The applicant shall consult with the nent of the Landscape and Aesthetic Treatment Plan and both this plan and the final designs for the buildings and approval by the City. The Landscape and Aesthetic Treatment Plan shall be provided to the CPUC for final from the CPUC prior to construction of these buildings and aesthetic treatments along Potrero Grande Drive. A Aesthetic Treatment Plan shall be fully implemented within four months of beginning operation of the new</p>	<p>The CPUC shall verify that SCE installs screening fences at Staging Yards 1, 2, 6, and 7.</p> <p>The CPUC shall verify whether the restoration of disturbed areas proposed by SCE is to pre-project conditions. For disturbance covered by local permits (e.g., streets, sidewalks, and parking areas), the applicant shall restore these areas to pre-project conditions in compliance with permits for work within these areas.</p> <p>The applicant shall consult with the City of Monterey Park in development of the Landscape and Aesthetic Treatment Plan and both this plan and the final designs for the buildings shall be subject to design review and approval by the City. The Landscape and Aesthetic Treatment Plan shall be provided to the CPUC for final review and receive final approval from the CPUC prior to construction of these buildings and aesthetic treatments along Potrero Grande Drive.</p> <p>The Graffiti Prevention and Abatement Plan shall be provided to the CPUC for final review and approval prior to beginning construction.</p>	<p>During Construction</p> <p>During Construction – Clearing and ground disturbance shall be the minimum required.</p> <p>Post-construction – Areas that need to be cleared during construction shall be regraded and revegetated.</p> <p>Prior to Construction – Prepare a Landscape and Aesthetic Treatment Plan.</p> <p>Post-construction – The Landscape and Aesthetic Treatment Plan shall be implemented within four months of beginning operation of the new substation.</p> <p>Prior to Construction – Prepare a Graffiti Prevention and Abatement Plan.</p> <p>Post-construction – Implement the Graffiti Prevention and Abatement Plan.</p>
<p>Prior to construction, the applicant shall prepare a Graffiti Prevention and Abatement Plan that will, at a ne installation of vegetative screening, with the use of California native and/or drought tolerant vegetation, 48 hours of report or implement other measures to screen or substantially reduce aesthetic impacts / 12-foot-high perimeter wall facing SR 60 along the southeast edge of the proposed Mesa Substation site, such easures intended to fully or mostly screen views from SR 60 of the southeast-facing portion of the wall that is racts graffiti generally considered unattractive or offensive. The applicant shall consult with the City of the Graffiti Prevention and Abatement Plan, and this plan shall be subject to review and comment by the City. ment Plan shall be provided to the CPUC for final review and approval prior to beginning construction. The and Abatement Plan shall be fully implemented, including installation of all plants for vegetative screening, peration of the new substation.</p> <p>reduce potential glare from components of the proposed project and help blend them into the landscape mmission and other structures with metal surfaces shall be non-reflective and new conductors shall be non-Ts, TSPs, and switchracks, all metal structures up to 35 feet high, including transformer banks and new from the vicinity of KOP 7 shall have finishes that are dark in color or otherwise colored to help blend the s.</p>	<p>CPUC verifies that all new transmission and other structures with metal surfaces installed by SCE be non-reflective and new conductors non-specular.</p>	<p>During Construction</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>minimize the effect on any nearby sensitive receptors, night lighting for construction activities, staging areas and and nighttime facility operations shall be the minimum necessary to ensure safety and security for nighttime lighting used for construction or operations and maintenance shall orient lights downward and be shielded to as when the lighting is in use. Lighting at the proposed Mesa Substation shall consist of light-emitting diode operations or maintenance activities would occur and be either motion-activated or use timers to the e safety and security and reduce the impact of additional light pollution at night.</p>	<p>CPUC verifies that SCE uses the minimum lighting necessary to safety and security for nighttime activities and operations, orients downwards and shields all lighting, and ensures that lighting proposed at the Mesa Substation shall consist of light-emitting diode lights in all areas where operations or maintenance activities would occur.</p>	<p>During Construction</p>
<p>ing construction, surfaces disturbed by construction activities would be covered or treated with a dust activities at each site of disturbance. On-site unpaved roads and off-site unpaved access roads utilized during project area would be effectively stabilized to control dust emissions (e.g., using water or chemical vehicle speeds on unpaved roadways would be restricted to 15 miles per hour.</p>	<p>CPUC verifies that SCE applies dust suppressant to surfaces disturbed by construction activities, and all unpaved roads would be stabilized using a water/chemical suppressant.</p>	<p>During Construction</p>
<p>off-road diesel construction equipment with a rating between 100 and 750 horsepower (hp) would be required A Tier 3 non-road engine standards. In the event that a Tier 3 engine is not available, the equipment would be d documentation would be provided from a local rental company stating that the rental company does not -fueled off-road construction equipment or that the vehicle is specialized and is not available to rent. Similarly, hat equipment would be equipped with a Tier 1 engine and documentation of unavailability would be</p>	<p>CPUC verifies that all off-road diesel equipment between 100 and 750 horsepower us engines compliant with Tier 3 non-road engine standards. CPUC will verify if a Tier 3 engine is not available per proper documentation, and a Tier 2 or Tier 1 engine must be used.</p>	<p>Prior to and During Construction</p>
<p><b>n Reduction Measures.</b> SCE shall implement the following emission reduction measures for all construction   construction equipment with engines greater than 100 horsepower (hp) shall be compliant with Tier 4 off-road available. In the event that equipment with a Tier 4 engine is not available for any off-road engine larger than III available diesel retrofit technologies to reduce emissions. Any technologically feasible retrofit control ented. If emission levels equivalent to Tier IV standards cannot be reached, the emissions shall be reduced to based on the selected retrofit technology. Diesel retrofit technologies investigated shall include, but are not board currently verified diesel emission control strategies. SCE shall document the results of its investigation   onstruction equipment with engines greater than 50 hp shall be compliant with Tier 3 off-road emissions the event that equipment with a Tier 3 engine is not available for any off-road engine larger than 50 hp SCE diesel retrofit technologies to reduce emissions. Any technologically feasible retrofit control technologies must vels equivalent to Tier III standards cannot be reached, the emissions shall be reduced to the maximum selected retrofit technology. Diesel retrofit technologies investigated shall include, but are not limited to, the verified diesel emission control strategies. SCE shall document the results of its investigation for review by the   t compliant with the Tier 3 or Tier 4 standards, as applicable, will be allowed on a case-by-case basis only nented that no Tier 3 or Tier 4 equipment (or emissions equivalent retrofit equipment) is available for a ch case shall be documented with signed written correspondence by the appropriate construction contractor, spondence from at least two construction equipment rental firms representing a good faith effort to locate er 4 requirements, as applicable. Documentation will be submitted to CPUC staff for review before equipment</p>	<p>SCE shall submit 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 least 15 days prior to mobilization of each applicable unit of equipment.</p>	<p>Prior to and During Construction</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>Construction monitors a copy of each piece of construction equipment's certified tier specification, best (BACT) documentation, and/or CARB or SCAQMD operating permit, as applicable, at least 15 days prior to the unit of equipment. In the event that unforeseen equipment replacement is required after the initial permit may be used so long as notification is submitted 24 hours prior to mobilization of the replacement equipment.</p> <p>Equipment will be turned off when not in use for periods longer than 15 minutes.</p> <p><b>Pounds Credits.</b> The remaining emissions of VOC/ ROG resulting from construction of the proposed Mesa project shall be offset through the purchase of Emissions Trading Credits (ETCs) for every pound of VOC/ROG in excess of the threshold of 100 pounds per day, as measured. The total amount of VOC/ROG ETCs to be purchased shall be determined after the schedule is finalized. The applicant shall purchase and submit documentation of purchase of the required ETCs for construction. The applicant shall also track actual daily ROG emissions during construction according to a schedule of equipment and vehicle usage and submit the results of this tracking to CPUC staff on a monthly basis. If too few credits have been purchased to compensate for ROG emissions after implementation of all applicable measures, the applicant shall purchase additional ROG credits within 6 months of the end of construction. The applicant shall submit proof of purchase of additional ROG credits within 7 months of the end of construction.</p>	<p>CPUC verifies that SCE has purchased and submitted documentation of the required ETC to the SCAQMD, and that SCE submits the results of a monitoring plan tracking to CPUC staff. If monthly reports indicate that too few credits have been purchased to compensate for ROG emissions after implementation of all applicable mitigation measures, the applicant shall purchase additional ROG credits within 6 months of the end of construction. The applicant shall submit proof of the purchase of credits within 7 months of the end of construction.</p>	<p>Prior to Construction – Calculate the total amount of VOC/ROG ETCs to be purchased.</p> <p>During Construction – Adhere to monitoring plan and submit reports to CPUC on a monthly basis.</p> <p>Post-construction – Submit proof of the purchase of credits within 7 months of the end of construction.</p>
<p><b>NO<sub>x</sub> Emissions.</b> Prior to construction, the applicant will submit proposed additional measures to reduce daily review and approval, with the measures implemented depending on the amount of Tier III and Tier IV engines on the project. Measures may include the following:</p> <ul style="list-style-type: none"> <li>Use of newer model trucks (e.g., material delivery trucks and soil import/export) or the use of trucks that meet EPA 2007 model year or newer diesel engines.</li> <li>Use of 2010 model year or newer diesel trucks cannot be obtained.</li> <li>Use of newer model trucks (e.g., material delivery trucks and soil import/export) or the use of trucks that meet EPA 2007 model year or newer diesel engines.</li> <li>Use of newer model trucks (e.g., material delivery trucks and soil import/export) or the use of trucks that meet EPA 2007 model year or newer diesel engines.</li> </ul> <p>Measures may include the following:</p> <ul style="list-style-type: none"> <li>Use of newer model trucks (e.g., material delivery trucks and soil import/export) or the use of trucks that meet EPA 2007 model year or newer diesel engines.</li> <li>Use of newer model trucks (e.g., material delivery trucks and soil import/export) or the use of trucks that meet EPA 2007 model year or newer diesel engines.</li> <li>Use of newer model trucks (e.g., material delivery trucks and soil import/export) or the use of trucks that meet EPA 2007 model year or newer diesel engines.</li> </ul> <p>Measures may include the following:</p> <ul style="list-style-type: none"> <li>Use of newer model trucks (e.g., material delivery trucks and soil import/export) or the use of trucks that meet EPA 2007 model year or newer diesel engines.</li> <li>Use of newer model trucks (e.g., material delivery trucks and soil import/export) or the use of trucks that meet EPA 2007 model year or newer diesel engines.</li> <li>Use of newer model trucks (e.g., material delivery trucks and soil import/export) or the use of trucks that meet EPA 2007 model year or newer diesel engines.</li> </ul>	<p>Prior to construction, the applicant and SCE will submit proposed additional measures to reduce daily emissions of NO<sub>x</sub> to CPUC staff for review and approval, with the measures implemented depending on the amount of Tier III and Tier IV engines available at the time of construction.</p> <p>Twenty days prior to the start of project construction, the applicant shall provide CPUC staff with an estimate of the total construction-related NO<sub>x</sub> emissions. The NO<sub>x</sub> emission credits shall be purchased and submitted to CPUC prior to the start of project construction.</p> <p>SCE shall submit results of monitoring plan tracking to CPUC on a monthly basis.</p> <p>The applicant shall submit proof of purchase of additional NO<sub>x</sub> credits within 7 months of the end of construction.</p>	<p>Prior to Construction – Verify measures have been identified for implementation.</p> <p>During Construction – Implement proposed additional measures.</p> <p>Prior to Construction – Provide CPUC staff with estimate of total construction-related NO<sub>x</sub> emissions and purchase the credits.</p> <p>During Construction – Implement monitoring plan tracking equipment and vehicle use. If needed, purchase additional credits within 6 months of the end of construction.</p> <p>Post-construction – Submit proof of additional credits purchased.</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p><b>Special Species.</b> During the appropriate phenological periods, formal pre-construction surveys for rare plants and special-status plants have the potential to occur within the construction areas. Prior to construction, the identified during the surveys would be marked or flagged for avoidance. This boundary would be maintained and would be avoided during all construction activities to the extent possible. Impacts to Nevin's barberry would be avoided where possible. These areas cannot be avoided, SCE would develop and implement a Revegetation Plan. The Revegetation Plan would develop and replace special-status plant species that may be impacted by construction of the proposed project. General measures in the event that special-status plant species are encountered prior to construction of the project include construction invasive weed management measures, where necessary, to ensure successful revegetation back to equivalent conditions of representative habitat immediately adjacent to the affected area.</p>	<p>CPUC shall verify pre-construction surveys for rare plants are conducted and the locations of special-status plants have been marked for avoidance. CPUC shall verify that a Revegetation Plan has been developed and implemented.</p>	<p>Prior to Construction – Conduct pre-construction surveys and mark special-status plants. During Construction – Avoidance of Nevin's barberry and special-status plants located during preconstruction surveys. Post-construction – Implement the Revegetation Plan.</p>
<p>i. To the extent feasible, SCE would minimize impacts and permanent loss to riparian habitat, native trees, and other special-status species by federal, State, or local agencies, and/or that provides suitable habitat for special-status species. Impacts to special-status species by flagging native vegetation to be avoided. If unable to avoid impacts to protected vegetation, a mitigation plan would be developed in coordination with the appropriate agencies for areas of native habitat temporarily and/or permanently impacted. The Revegetation Plan would describe, at a minimum, which vegetation restoration method (e.g., natural revegetation with native seed stock in compliance with the proposed project's Stormwater Pollution Prevention Plan) would be used to restore the project area. The Revegetation Plan would also include the species or habitats that could be impacted, and the restoration methods and techniques, and the monitoring periods and success criteria.</p>	<p>CPUC shall verify that a Revegetation Plan has been developed and implemented, in coordination with the appropriate agencies.</p>	<p>Prior to Construction – Prepare a Revegetation Plan. Post-construction – Implement the Revegetation Plan.</p>
<p><b>Monitoring.</b> To the extent feasible, biological monitors would monitor construction activities in areas with special-status habitat, or unique resources are avoided.</p>	<p>CPUC verifies that biological monitors are present when construction occurs in areas with special-status species, native vegetation, wildlife habitat, or unique resources.</p>	<p>During Construction</p>
<p><b>Gnatcatcher Protection.</b> A USFWS-approved biologist would conduct pre-construction surveys for coastal California gnatcatcher within 500 feet of the proposed project area. If confirmed, the USFWS would be notified and, in coordination with the USFWS, an exclusionary buffer would be established around the coastal California gnatcatcher habitat would be monitored by a full-time USFWS-approved biologist. Temporary and permanent impacts to coastal California gnatcatcher and their habitat would be avoided.</p>	<p>CPUC verifies that a USFWS-approved biologist conducts pre-construction surveys for the coastal California gnatcatcher within suitable habitat, and construction activities occurring in occupied habitat would be monitored by a full-time USFWS-approved biologist. CPUC also verifies that appropriate mitigation, as required by USFWS, would be implemented in areas of temporary and permanent impacts to the coastal California gnatcatcher and their habitat.</p>	<p>Prior to Construction – Conduct pre-construction surveys. During Construction – Perform construction monitoring.</p>





APMs and Mitigation Measures	Monitoring Requirements	Timing
<p><b>n Activities: Project Boundaries and Sensitive Areas Clearly Marked.</b> In all locations of the project, traffic (including movement of all equipment), and storage of construction materials shall be restricted to finished construction areas indicated by flagging, fencing, and/or signage. The applicant shall ensure that prior to the start of construction activities around laydown and work and staging areas, where necessary and encroachment into the project area by special status species and the inadvertent encroachment by project sensitive resources such as aquatic features, special-status plants and natural communities, and known wildlife (e.g., nests, burrows, or dens) shall be assigned a buffer as appropriate and clearly marked (e.g., with signs, ensure they are avoided unless disturbance was previously approved. A CPUC-approved qualified biologist shall depend on the species and the construction activity. The CPUC-approved qualified biologist shall fencing to ensure that these activities are conducted without harm to sensitive species or habitat.</p> <p>ence of special-status wildlife or special-status plant species not previously analyzed in this document, is found immediately halt work and contact the appropriate wildlife agency(ies) and the CPUC. Work will resume once the</p>	<p>CPUC verifies that construction activities are limited to approved work areas and access roads, and are indicated with flagging, fencing, and/or signage.</p>	<p>Prior to Construction</p>
<p><b>nd Mitigation.</b> Prior to construction of the proposed project the applicant shall ensure that seasonally-completed by a qualified botanist familiar with these vegetation associations. SCE shall develop a Habitat that shall include an estimate of the total area of sensitive natural communities, including all coastal California habitat. With the consultation, review, and comment from the USFWS, CDFW, and CPUC, SCE shall prepare the temporary impact areas and to ensure mitigation for permanent impacts on sensitive natural communities and it. The plan must be submitted 60 days prior to the planned start of construction. CPUC approval is required required plan details include but are not limited to:</p> <p>as shall be restored. All temporary disturbances to sensitive natural communities shall be restored with the community (except for areas burned in the 2015 "Lincoln" fire, which shall be restored to the pre-fire natural arily impacted areas observed to be utilized by the coastal California gnatcatcher shall be restored with the b community if feasible. Temporary impacts on sensitive natural communities and habitat utilized by d by restoration at a minimum ratio of 1.5:1; if restoration is not feasible within 1 mile of the project area, SCE mitigation lands at a minimum ratio of 2.5:1 from an entity approved by CDFW and/or USFWS, as t provide habitat to coastal California gnatcatcher, other special-status species, or sensitive resources may be eed upon between the landowner and the applicant.</p> <p>cify how each type of vegetation community, including sensitive natural communities, shall be addressed in tion details: topsoil segregation and conservation; vegetation treatment and removal; revegetation methods, appropriate habitat structure, and transplants; criteria to monitor and evaluate revegetation success (minimum d 80% successful native plant establishment); and compensation and remedial measures to be implemented</p> <p>ities, mitigation of permanent impacts shall occur after construction at a minimum level of 1.5:1. In addition, astal California gnatcatcher habitat that is not coastal sage scrub or another sensitive natural community shall 5:1 ratio with appropriate coastal sage scrub. Mitigation for permanent impacts shall be completed through</p> <p>ommunity within the proposed project areas (onsite);</p> <p>ommunity outside the proposed project areas (within one mile of the project area); or</p> <p>feasible, SCE shall purchase credits and/or mitigation lands at a minimum ratio of 2.5:1 from an entity (SFWS, as appropriate.</p> <p>nd offsite), the plan shall specify restoration details, including that post-construction monitoring shall be our years, a success criteria of 80% successful native plant establishment shall be met, and remedial measures ss criteria are not met.</p>	<p>The plan must be submitted 60 days prior to the planned start of construction. CPUC approval is required before the plan is implemented.</p> <p>CPUC shall verify that USFWS and CDFW have reviewed the plan.</p> <p>With CPUC approval, requirements described in this mitigation measure and the Habitat Restoration and Mitigation Plan may be satisfied through compliance with permit conditions, if these requirements are equally or more effective.</p>	<p>Prior to Construction – Ensure seasonally appropriate surveys of vegetation are completed and a Habitat Restoration and Mitigation Plan is prepared.</p> <p>During Construction - Minimize the removal of coastal sage scrub or other suitable coastal California gnatcatcher habitat.</p> <p>Post-construction – Restore all temporarily impacted areas and mitigate for permanent impacts on sensitive natural communities and coastal California gnatcatcher habitat.</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>TRTP and provide detailed restoration plans for these areas. Restoration in these areas shall follow restoration with the goals and criteria of TRTP restoration, per TRTP Mitigation Measure B-1a: Provide for impacts to native vegetation communities.</p> <p>As described in this mitigation measure and the Habitat Restoration and Mitigation Plan may be satisfied conditions, if these requirements are equally or more effective.</p> <p>Removal of coastal sage scrub or other suitable coastal California gnatcatcher habitat, particularly within designated California gnatcatcher. To minimize the removal of vegetation in habitat areas of the coastal California trimming of all native vegetation, riparian vegetation, and vegetation that provides potential habitat for monitored by a qualified biologist approved by the CPUC. Trimming of native trees and native arborescent of the nesting bird season and shall be monitored by a qualified arborist.</p>		
<p><b>Weed Control Plan.</b> Prior to construction, the applicant shall submit a Noxious and Invasive Weed Control before, during, and after construction, including during the project restoration phase. This plan shall include introduction and spread of noxious weeds and invasive plant species designated by the state, the counties, and plan shall be developed in consultation with the CPUC and must be submitted to the CPUC 60 days prior to the CPUC approval is required before the plan is implemented.</p> <p>Include the following measures:</p> <p>Special-status plant species (APM BIO-01 and MM BR-1) shall include surveys for state-, county-, and locally species. The applicant shall coordinate with the appropriate agencies, including the CPUC, to determine measures to implement, or whether control or treatment of a species is feasible and preferable.</p> <p>shall be clean and free of dirt, mud, and any debris that may carry invasive plant seeds or parts prior to arrival at prior to use of access roads.</p> <p>stations (mobile or built in place) shall be erected at strategic locations on the ROW where designated weed and where doing so would help prevent the spread of these species.</p> <p>er construction or erosion control materials that could inadvertently contain unwanted plant propagules shall ces that are free of invasive weeds.</p> <p>ation and reclamation activities shall come from weed-free sources.</p> <p>as that will be restored post-construction shall be monitored for invasive species establishment on a monthly on and on a quarterly basis outside of the growing season for at least one year after project restoration is expansion or increase in abundance of a known invasive species or introduction of a new invasive species is ate appropriate control measures, which may include mowing or trimming of weeds prior to seed set, as</p>	<p>This plan shall be developed in consultation with CPUC and shall be provided to these agencies for review and comment. The plan must be submitted to the CPUC 60 days prior to the planned start of construction. CPUC approval is required before the plan is implemented.</p>	<p>Prior to Construction – Prepare and submit a Noxious and Invasive Weed Control Plan and perform pre-construction surveys for special-status plant species.</p> <p>During Construction – Implement the Noxious and Invasive Weed Control Plan.</p> <p>Post-construction – Monitor of all restored work areas for the presence of invasive weeds.</p>
<p><b>Local Awareness Program.</b> The applicant shall develop and implement a WEAP for all project personnel. The e CPUC at least 30 days prior to the start of construction for review. CPUC approval is required before the e project personnel shall undergo training prior to entering the ROW. The training shall include a description of the ats, the general provisions of applicable environmental regulations, the need to adhere to the provisions of the ed with violating the provisions of the regulations, the general measures that are being implemented to s they relate to the project, the access routes to the project, and project boundaries within which the project- lished. This training shall include a detailed review of how project personnel can identify sensitive biological h need to be avoided or where work activities will be restricted.</p>	<p>SCE shall submit sign-in sheets for those who attended WEAP training.</p>	<p>Prior to Construction – Submit WEAP During Construction – Submit sign-in sheets monthly</p>
<p><b>barberry.</b> The project shall be designed to avoid impacts on occurrences of Nevin’s barberry during maintenance. Prior to the start of construction, the applicant’s CPUC-approved qualified biologist shall complete able habitat to identify any occurrences. Where Nevin’s barberry occurs, all construction and operation and outside a restrictive buffer, which shall be established by a CPUC-approved qualified biologist. Vehicles and d from coming within 200 feet of identified Nevin’s barberry unless a buffer reduction is approved by the CPUC</p>	<p>SCE shall submit preconstruction survey results to the CPUC, report any previously unknown occurrences found during pre-construction surveys or</p>	<p>Prior to Construction – Conduct pre-construction surveys in suitable habitat to identify any occurrences and establish a buffer around any occurrences.</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>shall monitor crew members and the Nevin's barberry to ensure all project activities stay away from Nevin's biologist shall have the authority to halt work if it is determined that Nevin's barberry could be impacted.</p> <p>own occurrences of Nevin's barberry are discovered during pre-construction surveys or during construction or be established and the USFWS and CPUC shall be contacted within 24 hours.</p> <p><b>Southern California Black Walnut.</b> SCE shall take measures to avoid and minimize impacts on Southern California construction activities, and shall plant replacement trees for any impacted or removed specimens. Prior to final engineering design of project features), black walnut tree evaluation surveys shall be completed by a local or regional expert in the planting, care, and maintenance of black walnut trees). The arborist shall record a brief description (e.g., location, height, diameter at breast height, condition) within 25 feet of construction activities. All construction activities that take place within the driplines of most extent of the canopy) that are not being intentionally removed shall be monitored by a qualified arborist on the tree, including roots.</p> <p>are impacted within the drip line or intentionally removed shall be replaced at a 2:1 ratio. If the diameter at removed is 24 inches or less, it shall be replaced with a 24-inch box tree. If the diameter at breast height of the 24 inches, it shall be replaced with a 36-inch box tree. Replacement trees shall be planted on site as near to biologically appropriate, and shall be monitored by a qualified arborist who will ensure the replacement Replacement trees shall be monitored for seven years after the initial planting or until the arborist as are successfully established. If onsite replacement is not feasible, SCE shall plant replacement trees offsite as appropriate and feasible. The same monitoring requirements and success criteria would apply as for those the two options above are feasible, SCE shall purchase credits and/or mitigation lands from an entity approved ratio of 4:1 is achieved.</p> <p>ed until a detailed plan for restoration, including identification of planting location, or offsite mitigation lands, consultation with USFWS and CDFW. Replacement trees shall be planted before tree removal, or if not feasible placement trees, as soon as possible after removal.</p>	<p>monitoring report.</p> <p>CPUC shall approve a detailed plan for restoration, including identification of planting location, in consultation with USFWS and CDFW.</p>	<p>Prior to Construction – Complete black walnut tree evaluation surveys.</p> <p>During Construction – Monitor construction activities that take place within the driplines of black walnut trees.</p> <p>Post-construction – Replace those black walnut trees impacted or removed by construction activities.</p>
<p><b>Special-Status Plants.</b> The applicant shall complete pre-construction surveys during the appropriate blooming plants, including Coulter's Matilija poppy, Plummer's mariposa lily, and Southern project component areas where suitable habitat is present. Special-status plants shall be identified by a surrounded with fencing in such a way that disturbance of the populations or individuals shall be avoided. In individuals of special-status plants (other than Southern California black walnut—see MM BR-7) cannot be p and implement a restoration plan for each plant which will be submitted to CPUC and CDFW for review and or to construction activities within the work area where impacts would occur. The CPUC will coordinate al is required before the plan is implemented. In the case of Southern California black walnut trees, a d and approved as described in MM BR-7.</p> <p>status plants, restoration shall occur after construction at a minimum ratio of 1.5:1 for all special-status plants at areas. The number of plants at seven years will be a minimum of 1.5 times the number destroyed.</p> <p>shall be completed by:</p> <ul style="list-style-type: none"> <li>within the proposed project areas (onsite);</li> <li>outside the project areas (offsite); or</li> </ul> <p>mitigation lands at a ratio of 2.5:1 from an entity approved by CDFW.</p> <p>plants onsite or offsite), the plan shall include the following elements: planting/seeding palettes; monitoring ring schedule, including duration (seven years) and performance criteria (minimum of 1.5 times the number res that will be required to ensure success of the restoration effort. This mitigation measure may be</p>	<p>CPUC shall verify that pre-construction surveys occur during the appropriate blooming period and that any special – status plants are flagged or fenced for avoidance.</p> <p>In the event that populations or individuals cannot be avoided, the applicant shall develop and implement a restoration plan for each plant, which will be submitted to CPUC and CDFW for review and comment no less than 60 days prior to construction activities within the work area where impacts would occur. CPUC approval is required before the plan is implemented.</p>	<p>Prior to Construction – Conduct pre-construction surveys.</p> <p>Develop restoration for each special-status plant that cannot be avoided.</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p><b>ing.</b> The applicant shall ensure that a qualified biologist approved by the CPUC serves as a construction construction activities occur near active nest areas, or within 100 feet of native vegetation or vegetation that has provide habitat for special-status species. The monitor shall have the authority to temporarily stop work that they as species or sensitive resource. The monitor shall determine what appropriate action to take, and work will nes there is no longer a threat to the special-status species or sensitive resource, or consultation has occurred species which determines appropriate steps have been taken and a threat is no longer present.</p>	<p>CPUC shall verify that a CPUC-approved biologist is present during construction activities occurring near active nest areas, or within 100 feet of native vegetation or vegetation that has the potential, or is known, to provide habitat for special-status species.</p>	<p>During Construction</p>
<p><b>Pipes.</b> To prevent entrapment of wildlife, SCE shall ensure that all steep-walled trenches, auger holes, open-s are covered at the end of each day or completely fenced off at night in such a way that wildlife cannot become z, these may instead have wildlife escape ramps within the trench maintained at intervals of no greater than a maximum slope not to exceed 2:1. SCE's biological monitor, approved by the CPUC, shall inspect all trenches, a minimum of three times per day and immediately prior to backfilling. During working hours, all construction i, including but not limited to pipe sections and fencing supports, shall be left capped when not planned for use ruction, open piping shall be inspected for wildlife by SCE's biological monitor before the material is moved, -status wildlife species found will be safely removed and relocated out of harm's way, through the use of hen applicable. For safety reasons, under no circumstance will biological monitors enter open excavations.</p>	<p>CPUC shall verify that all steep-walled trenches, auger holes, or other excavations are covered at the end of each day or completely fenced off at night in such a way that wildlife cannot become entrapped. Escape ramps are acceptable for open trenches only.</p>	<p>During Construction</p>
<p><b>ement Plan.</b> To address potential conflicts between construction activities and the activities of nesting birds in shall develop a nesting bird management plan in consultation with USFWS, CDFW, and CPUC, and shall submit han 60 days prior to construction. CPUC approval is required before the plan is implemented. The nesting bird easures and an adaptive management program to avoid and minimize impacts to special-status and MBTA- or otected bird species during nesting periods during project construction. Specifically, the nesting bird tments, methods, and surveyor qualifications; approved nest deterrent methods, including areas where the purpose of deterring nesting; monitoring and reporting protocols during construction; protocol for a active; protocol for documenting, reporting, and protecting active nests within construction areas. If pre-s exist for a certain species, the plan shall identify the species-specific protocol that will be followed and outline protocol.</p>	<p>SCE shall develop a Nesting Bird Management Plan in consultation with USFWS, CDFW, and CPUC, and shall submit the final plan to the CPUC no less than 60 days prior to construction. CPUC approval is required before the plan is implemented.</p> <p>Reporting of nesting bird activities, buffer reductions, and monitoring results shall be provided to the USFWS, CDFW, and the CPUC on a regular basis.</p>	<p>Prior to Construction – Conduct surveys during the appropriate nesting season.</p> <p>During Construction – Perform monitoring and prepare reports.</p>
<p>appropriate and effective buffer distances that will account for specific project settings, bird species, stage of n work type. Language for buffer reduction process will be included in the plan, which shall include riate wildlife agencies and the CPUC if reducing the buffer of a special-status species.</p> <p>determination of appropriate and effective buffers between construction activities and identified nests shall be ic and data-driven, and will not be based on generalized assumptions regarding all nesting birds.</p> <p>terminations of appropriate and effective buffers between construction activities and identified nests can be on area by the CPUC-approved biological monitor (qualified in accordance with nesting bird plan standards, requirements for education and experience in conducting biological surveys and with specific birds in the project</p>		
<p>a place in those areas where helicopters will be used, and they will be based on anticipated effects of rotor f helicopter being used by SCE. Surveys and monitoring of the active buffer areas will be performed by a CPUC- rring, and after helicopter use in the vicinity of active buffers.</p> <p>on surveys shall adhere to the current burrowing owl survey protocol identified by CDFW (i.e., CDFW's Staff igation [CDFG 2012]). If pre-construction burrowing owl surveys confirm the presence of burrowing owl, SCE Compensation Plan, in consultation with CDFW and the CPUC, which is consistent with mitigation guidelines nstruction. The final Burrowing Owl Compensation Plan shall be implemented, as specified, throughout</p> <p>The plan shall describe the compensatory measures that will be undertaken to address the loss of burrowing ct area. This will include mitigation for permanent impacts on nesting, occupied, and satellite burrows and</p>		

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>ciently large acreage, and presence of fossorial mammals.</p> <p>d the CPUC of all project-related bird injuries or mortalities within 12 hours of discovery and will follow the of any. Reporting of nesting bird activities, buffer reductions, and monitoring results shall be provided to the regular basis.</p>	<p>CPUC shall ensure that protocol-level surveys are conducted.</p>	<p>Prior to Construction – Conduct protocol-level surveys.</p> <p>During Construction – Perform monitoring and prepare monitoring reports.</p>
<p>s. Prior to the start of construction, SCE shall ensure that protocol-level pre-construction surveys are approved by the CPUC for the coastal California gnatcatcher in project component areas where suitable the Coastal California Gnatcatcher (<i>Polioptila californica californica</i>) Presence/Absence Survey Guidelines coastal California gnatcatchers are observed during pre-construction surveys, a qualified biologist must pair's territory and SCE must not conduct construction activities within 500 feet of the territory, or as in consultation with USFWS. SCE shall notify USFWS and the CPUC in the event gnatcatcher territory or nest immediately upon return from the field. If infeasible to maintain a buffer of 500 feet (or a distance otherwise temporary flagging or fencing, from an active gnatcatcher territory, construction activities within or near inside the breeding and nesting season (coastal California gnatcatcher breeding/nesting season is approximately SCE may conduct construction activities in gnatcatcher habitat during the breeding and nesting season if within one year prior to construction activities per protocol) confirm the absence of breeding gnatcatchers, r from all active gnatcatcher territories can be maintained.</p>	<p>CPUC shall ensure that protocol-level surveys are conducted.</p>	<p>Prior to Construction – Conduct protocol-level surveys.</p> <p>During Construction – Perform monitoring and prepare monitoring reports.</p>
<p><b>Riparian Habitat and Aquatic Features.</b> SCE shall complete the following:</p> <p>vegetation is required to be removed, SCE shall work with a qualified botanist to determine the minimum d to be removed in order to accommodate project construction, and the correct trimming procedures to n habitat or aquatic features shall be fully restored according to the Habitat Restoration and Mitigation Plan manently impacted areas shall be mitigated using methods described in MM BR-3.</p> <p>aquatic features would be impacted by project construction activities, SCE shall also consult with USACE, mine if a CWA Section 404 permit, CWA Section 401 permit, and LSAA pursuant to California Fish and Game necessary, respectively. If USACE, RWQCB, or CDFW determines a permit is required, the permit will be SCE will comply with all terms and conditions of the agreement. In addition, the USACE, RWQCB, and CDFW nity to review and comment on the Habitat Restoration and Mitigation Plan if impacts will occur in an area liction.</p> <p>cribed under number 2 above for impacts to riparian habitat or aquatic features may be satisfied by th equal or more effective permit conditions, with approval by the CPUC.</p>	<p>CPUC verifies that a qualified botanist has been consulted to determine the minimum amount of vegetation to be removed, temporary impacts are restored according to the Habitat Restoration and Monitoring Plan, and permanent impacts are mitigated according to methods described in MM BR-3. CPUC may also determine that the above mitigation requirements are satisfied by compliance with permit conditions.</p> <p>CPUC also verifies that USACE, RWQCB, and CDFW are consulted to determine if a permit is necessary.</p>	<p>Prior to Construction – Consult with botanist to determine appropriate amount of vegetation removal.</p> <p>Post-Construction – Restore and/or mitigate temporary and permanent impacts.</p>
<p>n. SCE shall adhere to recommendations published by APLIC (<i>Reducing Avian Collisions with Power Lines: The 12</i>). In addition, SCE shall develop and implement an Avian Protection Plan according to Avian Protection Plan 05). The plan shall include provisions to reduce impacts on avian species during operation of the proposed adaptive management of project-related issues. The plan shall be submitted for review to CDFW, USFWS, and construction. CPUC approval is required before the plan is implemented.</p>	<p>The plan shall be submitted for review to the CDFW, USFWS, and CPUC at least 60 days prior to construction. CPUC approval is required before the plan is implemented.</p>	<p>Prior to Construction – Develop an Avian Protection Plan.</p> <p>During Construction – Implement the Avian Protection Plan.</p>

Resources	APMs and Mitigation Measures	Monitoring Requirements	Timing
<p><b>resources Management Plan.</b> A Paleontological Resources Management Plan would be developed for resources identified as having a moderate and high sensitivity for paleontological resources. The Paleontological Plan would be prepared by a professional paleontologist in accordance with the recommendations of the Society of Professional Paleontologists.</p>	<p><b>CPUC verifies a Paleontological Resources Management Plan is developed by a professional paleontologist.</b></p>	<p>Prior to Construction – Develop a Paleontological Resources Management Plan.</p> <p>During Construction. Implement the Paleontological Resources Management Plan.</p> <p>Prior to Construction</p>	
<p><b>Unevaluated Historic Sites.</b> Prior to commencement of any construction or construction-related activities boundaries of (1) the historic-era debris and concrete structure at site P-19-186889 and (2) the concrete footings of the proposed CPUC-approved archaeological shall erect flagging to create a 50-foot buffer around these resources. Flagging shall be visible color, and signs shall be posted at the perimeter of the flagged areas on all sides to indicate that the resources are present, and personnel shall stay out of the flagged areas. Flagging and signage shall stay in place until all work at the site of the resources has been completed.</p>	<p><b>CPUC verifies an archaeologist has erected flagging at appropriate locations.</b></p>	<p>CPUC verifies all SCE, contractor, and subcontractor project personnel have received worker training for cultural and paleontological resources.</p>	<p>Prior to Construction</p>
<p><b>Cultural and Paleontological Resources.</b> Prior to commencement of any project-related construction activities, project personnel shall receive training regarding:</p> <ul style="list-style-type: none"> <li>• How to identify and report suspected cultural resources and paleontological resources.</li> <li>• How to respond to the discovery of suspected cultural resources and paleontological resources.</li> <li>• How to respond to the discovery of suspected discovery of historic or archaeological materials, including Native American artifacts.</li> <li>• How to respond to the discovery or suspected discovery of paleontological resources.</li> <li>• How to respond to the case of violation of applicable laws.</li> </ul>	<p><b>CPUC verifies all SCE, contractor, and subcontractor project personnel have received worker training for cultural and paleontological resources.</b></p>	<p>CPUC verifies all SCE, contractor, and subcontractor project personnel have received worker training for cultural and paleontological resources.</p>	<p>Prior to Construction</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p><b>Identified Cultural Resources.</b> If a previously unknown cultural resource is discovered during project construction within 100 feet of the resource, and protective barriers shall be installed along with signage identifying the area. Entry into the area shall be limited to authorized personnel, and the CPUC-approved cultural resources SCE, and the CPUC shall be notified immediately.</p> <p>(ce) is the preferred method of mitigation for impacts on cultural resources and shall be required to mitigate resources unless the CPUC-approved cultural resources specialist/qualified archeologist and SCE would provide superior mitigation of impacts to the resource. If the resource can be completely avoided, no . If the resource cannot be completely avoided, the CPUC-approved cultural resources specialist/qualified the procedures delineated below for resources where it is not known whether the resource is historical. If an , it shall nonetheless be recorded on DPR 523 forms, which shall be filed at the Eastern Information Center.</p> <p><b>is an historical resource.</b> The CPUC-approved cultural resources specialist/qualified archaeologist and SCE, , shall determine if there is a potential for the resource to be a historical resource. If there is no potential for historical resource, work shall resume after CPUC concurrence. If there is a potential for the resource to be a ed archaeologist and SCE shall prepare an Evaluation Plan.</p> <p>ce-specific Evaluation Plan shall detail the procedures to be used to determine if the discovery is an historical shall include sufficient discussion of background and context to allow the evaluation of the resource against a. It shall include a description of procedures to be used in the gathering of information to allow the evaluation. e (but are not limited to): excavation, written documentation, interviews, and/or photography. For ng, the Evaluation Plan shall describe the archaeological testing procedures, including, but not limited to: artifacts are discovered), test excavations (including type, number, and location of test pits and/or trenches), ng procedure. The Evaluation Plan shall be submitted to CPUC for review. Once approved, the Evaluation Plan eld. The report resulting from this work shall include evaluation of the discovery, based on the significance tion Plan, indicating if it is an historical resource. If the discovery is not found to be an historical resource, and mination, protective barriers may be removed, and work may proceed in the area of the discovery. If the an historical resource, SCE shall prepare a Data Recovery Plan.</p> <p>covery Plans for historical resources that cannot be fully avoided shall be prepared in accordance with CEQA (3)(C) and PRC section 21083.2, as applicable. The Data Recovery Plan shall outline how the recovery of data e impacts to that resource to below a level of significance. The Data Recovery Plan shall describe the level of kinds of excavation units to be dug, excavation procedures, laboratory methods, samples (e.g., pollen, e collected and analyzed, analysis techniques that will yield information relevant to the aspects of the site that , and reporting procedure. This plan shall be submitted to the CPUC for review and approval. Once approved, the approved plan. Once the data recovery field work is complete, a Data Recovery Field Memo shall be</p> <p>Following implementation of the Data Recovery Plan, the Data Recovery Field Memo shall be prepared. The all briefly describe the data recovery procedures in the field and summarize (at a field catalog level) the Recovery Field Memo shall also identify the number and kind of samples recovered that are appropriate for diocarbon dating, obsidian sourcing, pollen analysis, microbotanical analysis, and others, as applicable. The all be submitted to CPUC for review and approval. Once the Data Recovery Field Memo has been approved, moved, and work may proceed in the area of the discovery. A Data Recovery Report shall then be prepared.</p> <p>in 90 days of submittal of the Data Recovery Field Memo, a Data Recovery Report shall be prepared presenting y program, including a description of field methods, location and size of excavation units, analysis of materials of any special analyses conducted), and conclusions drawn from the work. The Data Recovery Report shall also es, and documentation resulting from the data recovery program will be curated. The curation facility shall Code of Federal Regulations 79. The Data Recovery Report shall be submitted to the CPUC for review and Data Recovery Report shall be filed with the Eastern Information Center. All impacted known resources and all be recorded on DPR 523 forms that shall be filed at the Eastern Information Center with the Data Recovery</p>	<p>CPUC verifies that work has been halted and that protective barriers have been installed. CPUC verifies that a Data Recovery Field Memo is prepared and a Data Recovery Report is prepared and submitted to CPUC for review and approval. CPUC shall also verify that all impacted known resources and all unanticipated resources shall be recorded on DPR 523 forms that shall be filed at the Eastern Information Center with the Data Recovery Report. If an Evaluation Plan is needed, CPUC shall verify it has been prepared with appropriate measures.</p>	<p>During Construction</p>



APMs and Mitigation Measures	Monitoring Requirements	Timing
<p><b>Resources Monitoring.</b> Prior to the start of construction, the applicant shall retain a qualified paleontologist. The approved by the CPUC and shall monitor all ground-disturbing activities that take place within areas that have a certain paleontological resources, consistent with designations shown in Table 4.4-7. The Paleontological M-CUL-01) shall show a map of areas requiring monitoring consistent with Table 4.4-7. The paleontological to halt construction in the vicinity of any potential paleontological resource finds to begin implementation of</p> <p><b>Palaeontological Resource Discovery Protocol.</b> In the case that a previously unknown paleontological resource is activities, all work within 15 meters of the resource shall be stopped, and the CPUC-approved paleontologist with SCE, whether the resource can be avoided. If the discovery can be avoided and no further impacts will required. If the resource cannot be avoided and may be subject to further impact, the paleontologist shall s unique under Part V of CEQA Guidelines Appendix G. A paleontological resource shall be considered unique if ant paleontological resource under the 2010 Society of Vertebrate Paleontology <i>Standard Procedures for the Paleontological Resources</i> definition:</p> <p>resources are fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large rate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogentic, paleoecologic, nologic information. Paleontological resources are considered to be older than recorded human history and/or .e., older than about 5,000 radiocarbon years).</p> <p>conclusion shall be provided to the CPUC for review and approval. If the resource is determined not to be ne area.</p> <p>ork shall remain stopped, and the approved paleontologist shall consult with the applicant and the CPUC no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation rred method of mitigation for impacts to paleontological resources and shall be required to mitigate impacts rces unless the CPUC-approved paleontologist determines that another method would provide superior rce. Other methods include ensuring that the fossils are recovered, prepared, identified, catalogued, and fessional standards under the direction of a qualified paleontologist. Methods of recovery, testing, and y <i>Standard Procedures for the Assessment of Adverse Impacts to Paleontological Resources</i>. Work can commence roval.</p>	<p>SCE shall retain a qualified paleontologist, approved by the CPUC.</p> <p>CPUC verifies that the Paleontological Resource Discovery Protocol is followed, including CPUC review and approval of the uniqueness conclusion for the resource and the methods for recovery of the resource.</p>	<p>During Construction</p> <p>During Construction</p>
<p><b>Discovery of Human Remains.</b> In the event that human remains or suspected human remains are identified, SCE including, but not limited to, the following provisions: CEQA Guidelines section 15064.5(e); PRC sections and California Health and Safety Code section 7050.5. These laws require Native American consultation for identified shall be flagged off, and all construction activities within 165 feet (50 meters) of the find shall CPUC-approved cultural resources specialist/archaeologist, SCE, and any other appropriate agency shall be ral resources specialist/archaeologist shall examine the find. If the cultural resources es that there may be human remains, SCE shall immediately contact the Medical Examiner at the Los Angeles cal Examiner has two working days to examine the remains after being notified by SCE. If the Medical e Native American, he/she shall notify the NAHC within 24 hours.</p> <p>the person it believes to be the most likely descendant (MLD) of the remains, and the MLD has 48 hours to downer or representative for the respectful treatment or disposition of the human remains and any D) does not make recommendations within 48 hours, the area of the property shall be secured from further between the landowners and the MLD, the NAHC shall mediate the dispute and attempt to find a solution. If the es acceptable to the landowner, the landowner or their representative shall reinter the remains and associated in an area of the property secure from further disturbance. The location of any reburial of Native American sed to the public and shall not be governed by public disclosure requirements of the California Public Records 6250 et seq., unless otherwise required by law. The Medical Examiner shall withhold public disclosure of</p>	<p>In the event that human remains are identified, the CPUC, the CPUC-approved cultural resources specialist/archaeologist, SCE, and any other appropriate agency shall be immediately notified. CPUC shall verify that SCE immediately contacts the medical examiner at the Los Angeles County Coroner's Office.</p>	<p>During Construction</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p><b>igation.</b> The applicant will conduct a geotechnical investigation for the proposed project and prepare a the results of the investigation. The geotechnical investigation shall assess the potential for liquefaction, mic ground shaking, and expansive soil. The geotechnical report shall make recommendations of engineering te into the proposed project, determined appropriate by a California-licensed Geotechnical Engineer or o mitigate impacts associated with liquefaction, landslides, lateral spreading, seismic ground shaking, and y be used to minimize impacts could include, but are not limited to:</p> <ul style="list-style-type: none"> <li>ills, retaining walls, slope coverings, removal of unstable materials, avoidance of highly unstable areas, ns, and/or ground improvements of liquefiable zones.</li> <li>ng: retaining walls, excavation of unstable materials, avoidance of highly unstable areas.</li> <li>xy dissipating devices, bracing, bolting of foundations.</li> <li>xpansive soil, draining water away from expansive soils, ground-treatment processes.</li> </ul> <p>to the CPUC prior to construction that demonstrates these measures have been incorporated into project</p>	<p>SCE shall provide documentation to the CPUC prior to construction that demonstrates these measures have been incorporated into project design.</p>	<p>Prior to Construction</p>
<p><b>ils</b></p> <p><b>Business Plan.</b> A Hazardous Materials Business Plan (HMBP) shall be submitted to the CPUC and via Environmental Reporting System (CERS) for any hazardous materials stored on-site over threshold eet, or 500 pounds). The plan shall include information on:</p> <ul style="list-style-type: none"> <li>t t the Mesa Substation over threshold quantities.</li> <li>y information, including internal access roads, adjacent public streets, sewer drains, emergency response s points.</li> <li>r release and threatened release of the covered materials.</li> </ul> <p>east 30 days prior to storage of covered hazardous materials via the CERS. A receipt, showing that the agency ed to the CPUC no less than 15 days prior to storage of covered hazardous materials.</p>	<p>The Hazardous Materials Business Plan and its approval by the Los Angeles Certified Unified Program Agency must be submitted to the CPUC at least 30 days prior to storage of covered hazardous materials.</p>	<p>Prior to Construction</p>
<p><b>Training.</b> Prior to construction, the applicant will prepare and implement a worker environmental awareness and approval that includes:</p> <ul style="list-style-type: none"> <li>tion of Material Safety Data Sheets, as well as proper labeling, storage, use, transport, and disposal of</li> <li>aminants that could be uncovered in the proposed project area and instruction regarding appropriate aminated soil is present.</li> <li>under the SPCC (MM HZ-3) including notification to appropriate personnel, including the Spill Response dous materials spill or leak from equipment, or upon the discovery of soil or groundwater contamination.</li> <li>nsibilities under the Clean Water Act, the project SPCC, the project SWPPP, and site-specific BMPs.</li> <li>th OSHA regulations and procedures if landfill gas is encountered during excavations.</li> <li>ds documenting attendees at each training.</li> </ul>	<p>CPUC verifies Hazardous Materials Training has been prepared and administered, and that SCE maintains records documenting attendees at each training.</p>	<p>Prior to Construction.</p>





APMs and Mitigation Measures	Monitoring Requirements	Timing
<p><b>Drainage Plan.</b> SCE shall prepare and implement a Drainage Plan that ensures runoff during construction activities at the substation site. SCE shall prepare and implement a Drainage Plan that ensures runoff during construction activities at the substation site. Measures that can be implemented include:</p> <ul style="list-style-type: none"> <li>Install detention basins on site.</li> <li>Install silt fences at the storm water system.</li> <li>Install silt fences at the storm water system.</li> </ul> <p>Monterey Park and CPUC for review and approval prior to beginning construction activities at the substation site.</p> <p><b>Design.</b> SCE shall design the detention basin on the proposed Mesa Substation site in accordance with the Los Angeles County Public Works Hydrology Manual (LACDPW 2006). The Hydrology Manual contains techniques to calculate runoff from precipitation and runoff. As applicable, the detention basin shall be designed in accordance with the Los Angeles County Department of Public Works Low Impact Development Standards Manual (LACDPW 2014).</p> <p><b>Worker Training.</b> As part of the Worker Environmental Awareness Program, SCE shall train construction workers on dam failure. Workers to be trained shall include those located in the dam inundation areas of the Garvey Reservoir north dam, Garvey Reservoir south dam, and Santa Fe Dam.</p>	<p>SCE shall submit the plan to Monterey Park and CPUC for review and approval prior to beginning construction activities at the substation site.</p> <p>CPUC shall verify that the detention basin is designed in accordance with the Los Angeles County Department of Public Works Hydrology Manual prior to beginning construction of the proposed project.</p> <p>CPUC shall verify that SCE trains all construction workers located in the dam inundation areas of the Garvey Reservoir south dam, Eaton Canyon Dam, Garvey Reservoir north dam, and Santa Fe Dam on evacuation routes in the event of dam failure prior to construction of the proposed project.</p>	<p>Prior to Construction – Prepare a Drainage Plan.</p> <p>During Construction – Implement the Drainage Plan.</p> <p>Prior to Construction</p> <p>Prior to Construction</p>
<p>Prior to the start of construction, the applicant shall prepare a Noise Control Plan to ensure that project noise levels are:</p> <ul style="list-style-type: none"> <li>by more than 10 dBA (8-hour <math>L_{eq}</math>), or</li> <li>exceed the applicable jurisdiction's noise ordinance.</li> </ul> <p>Equipment shall be selected based on the specific equipment used, and activity conducted in specific locations, and locations. The applicant shall submit the Noise Control Plan to the CPUC at least 30 days prior to the start of construction. Measures that may be included in the Noise Control Plan to reduce noise levels by 10 dBA or to the noise level of the applicable jurisdiction's noise ordinance are:</p> <ul style="list-style-type: none"> <li>Install and maintain noise absorptive noise control barriers in the perimeter of construction sites and/or between equipment and sensitive noise receptors when located within 200 feet of noise-intensive equipment operating at the substation site.</li> <li>The applicant shall notify all residents located within 50 feet of the absorptive barriers.</li> <li>Install noise absorptive noise control barriers or other sensitive receptors to the shortest possible period required to complete construction activities.</li> <li>Install noise absorptive noise control barriers, and other noise reduction equipment are in place and in good working condition.</li> <li>Install noise absorptive noise control barriers, and other noise reduction equipment are in place and in good working condition.</li> <li>Install noise absorptive noise control barriers, and other noise reduction equipment are in place and in good working condition.</li> <li>Install noise absorptive noise control barriers, and other noise reduction equipment are in place and in good working condition.</li> </ul>	<p>Verify identification of a Construction Relations Officer and mailing of notices at least 30 days prior construction. Review monthly reports to the CPUC.</p> <p>Verify implementation of noise control measures.</p>	<p>Prior to Construction – Prepare a Noise Control Plan.</p> <p>During Construction – Implement the Noise Control Plan.</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>es that minimizes the need for back-up alarms and use flagmen to minimize the time needed to back up</p> <p>duction equipment specifically designed for low noise emissions (e.g., equipment that is powered by electric or ad of diesel or gasoline reciprocating engines).</p> <p>ationary equipment such as compressors, generators, and welding machines away from sensitive receptors.</p> <p>l the frequency, location, and methodology for noise modeling and monitoring prior to and during various ities to ensure that generated noise levels do not exceed 10 dBA above existing ambient noise levels, or the lards. These methods shall include monitoring noise levels at the boundary of construction areas and using techniques to predict noise levels at adjacent sensitive receptors. If modeled levels exceed the greater than 10 or applicable ordinance threshold, noise monitoring will be conducted to verify model results. The Noise as and procedures that the applicant shall implement to mitigate impacts in the event that monitoring detects e criteria specified in this EIR. Noise level measurements shall be conducted in compliance with the City of , City of Commerce, City of Bell Gardens, City of Pasadena, and Los Angeles County requirements, as applicable.</p> <p>mate a Construction Relations Officer who is readily available to answer questions or respond to complaints restoration. The applicant shall send pre-construction notifications to sensitive receptors located within 100 ast 30 days prior construction. The notification shall include a phone number for the public to contact the ditionally, each construction site shall include clearly visible signs with the Construction Relations Officer's ment shall submit monthly reports to the CPUC summarizing the complaints submitted to the Construction ports shall describe how each complaint was addressed, if and when it was resolved, and available contact e public who submitted the complaint.</p>	<p>SCE must submit the noise measurements in the form of a memorandum to the CPUC within two weeks of measurement. Reports shall be submitted until the CPUC verifies that operation noise does not exceed the City of Monterey Parks' nighttime threshold.</p>	<p>Post-construction</p>
<p><b>on Noise Monitoring</b> As soon as Mesa Substation is fully operational, the applicant shall conduct noise operational noise levels from the substation transformers do not exceed the City of Monterey Park's nighttime measured median ambient noise level, whichever is greater) at the closest receptor. If the nighttime noise at shall implement engineering solutions, including, but not limited to, barrier walls around the transformer, noise cancellation methods until the project does not exceed the nighttime noise standard. SCE must submit the of a memorandum to the CPUC within two weeks of measurement. Reports shall be submitted until the CPUC not exceed the City of Monterey Park's nighttime noise standard.</p>	<p>The CPUC shall verify that notice to all property owners within 660 feet of the proposed helicopter operation areas is provided at least one week prior to helicopter operation.</p> <p>SCE must submit helicopter locations to the CPUC for review and approval at least 30 days prior to use of the helicopter location.</p> <p>SCE shall provide documentation of the notice and coordination to the CPUC at least 20 days prior to construction. The CPUC shall verify that notice has been provided to Whittier Narrows at least 30 days prior to</p>	<p>Prior to Construction – provide notice at least 7 days prior to helicopter operation.</p> <p>Prior to Construction</p> <p>Prior to Construction</p>
<p><b>r Operations.</b> For all construction activities that would include helicopter operations, SCE shall provide at o all property owners within 660 feet of the proposed helicopter operation areas. The announcement would anticipated and would provide the start date, anticipated completion dates, hours of helicopter usage, and a stions or complaints during construction. In addition, helicopters would maintain a height of at least 500 feet as, as well as a lateral distance of at least 500 feet from all schools and hospital buildings, except when they are ssisting with construction activities.</p> <p><b>oter Landing and Takeoff Areas.</b> SCE shall position helicopter landing and takeoff areas in Staging Yards 1, 2, m sensitive receptors, while not sacrificing the safety of helicopter operations due to hazards (e.g., the staging yards. SCE must submit helicopter locations to the CPUC for review and approval at least 30 days on.</p>	<p>SCE shall provide documentation of the notice and coordination to the CPUC at least 20 days prior to construction. The applicant shall provide notice to the Whittier avoid the noise. The notice shall include dates, times, and descriptions of construction activities, in addition to ble alternative nearby recreational facilities. The applicant shall also coordinate with the Whittier Narrows ces causing an increase in noise of over 10 dBA above ambient noise levels do not occur in the Whittier planned special events. SCE shall provide documentation of the notice and coordination to the CPUC at least</p>	<p>Prior to Construction</p>



APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>the project and after any repairs that document restoration of pre-project pavement conditions. All conditions and repair shall be submitted to the CPUC for review and verification within 30 days of repair completion.</p> <p>Emergency service providers are reduced to less than significant levels, i.e., maintain access for emergency services may include the following:</p> <ul style="list-style-type: none"> <li>relations by assessing the needs of road users, abutting property owners, and emergency service providers (fire, police, and medical) and cooperating with various news media;</li> <li>emergency service providers (i.e., police departments, ambulance services, and fire departments) of road closures during the closure;</li> <li>agency service provider of the location, date, time, and duration of closure; and</li> <li>signs to maintain emergency vehicle access at all times in coordination with local emergency service vehicles (e.g., metal plates available to cover open trenches).</li> </ul> <p>Transit, pedestrians, and bicyclists are reduced to less than significant levels, i.e., maintain safe conditions during construction of the proposed project. The project shall allow for safe vehicle, bicyclist, and pedestrian zones in consideration of basic safety principles to route roadway users through construction zones using traffic control devices and traffic control devices comparable to normal roadway situation as possible. The Traffic Control Plan's measures shall be appropriate to the complexity of the project work, and primary measures may include:</p> <ul style="list-style-type: none"> <li>other public transit providers of construction along existing public transit routes. SCE shall work with transit providers to relocate transit stops during construction, if needed;</li> <li>paths that are reasonably safe, convenient, and accessible paths that replicate as nearly as possible the most desirable walking paths (e.g., maintaining sidewalk and bicycle access on at least one side of affected streets during construction);</li> <li>communications and a process for communication with affected transit riders, pedestrians, and bicyclists prior to the start of construction. Public notification shall include posting of notices and appropriate signage of construction activities. The project shall include the construction schedule, the exact location and duration of activities within each street (i.e., which streets, sidewalks, and bicycle routes would be affected on which days and for how long), and a toll-free telephone number for questions or complaints;</li> <li>construction of alternative routes for pedestrians and bicyclists, applying the CA MUTCD principles for construction of alternative routes for pedestrians and bicyclists, and flagging; and</li> <li>open trenches in inactive construction areas to maintain existing bicycle and pedestrian access after construction.</li> </ul> <p>Whittier Narrows park-and-ride lot are reduced to less than significant levels, i.e., maintain safe entrance and exit. Primary measures may include the following:</p> <ul style="list-style-type: none"> <li>Los Angeles County and the Whittier Narrows Recreation Area so that SCE can provide traffic control for two-lane park-and-ride entrance to the Whittier Narrows park-and-ride lot during the Durfee Avenue exit closure.</li> </ul> <p>SCE shall ensure that:</p> <ul style="list-style-type: none"> <li>all transportation modes are provided and routine day and night inspections of the plan's elements are conducted during the life of the project to accommodate disabled vehicles, run off the road incidents, and emergency</li> </ul>		



APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>and management personnel receive training appropriate to the job decisions each individual is required to make.</p> <p>on the final construction schedule and residing location of construction workers. Measures implemented as exceedance of applicable thresholds as described in this document at other impacted intersections. The plan tion would not result in V/C to exceed thresholds at significantly impacted and non-significantly impacted , highway, and lane closure plans shall be prepared and implemented as required and in coordination with the ditions. Appropriate advance notifications shall be made to the affected jurisdictions and affected property and notification shall be provided to the CPUC.</p> <p>and durations of:</p> <p>losures</p> <p>ot closures</p> <p>h applicable permit requirements, e.g., obtaining required encroachment permits from Caltrans and/or other rk done within roadways, would reduce identified significant traffic impact(s) consistent with the n MM TT-1, SCE may submit such permit(s) in lieu of addressing that impact or impacts in the Traffic Control val by the CPUC prior to the start of construction.</p> <p>CE's helicopter contractor shall coordinate with FAA and obtain FAA-required approvals for helicopter mital shall include a Helicopter Lift Plan for operations within 1,500 feet (457 meters) of a congested area or residences in compliance with 14 CFR 133.33, which requires that flights be conducted so emergency landings e accomplished without safety risks to people or property when operating over congested areas. Measures</p> <p>le for equipment inspections</p> <p>nes where pedestrians will not be allowed</p> <p>y requirements and procedures</p> <p>val shall be provided to the CPUC prior to commencing helicopter operations.</p> <p>mination. SCE shall obtain a determination of no-hazard from the FAA when notification under 14 CFR 77 is</p> <p>t, such as cranes; and</p> <p>as lattice steel towers.</p> <p>of the FAA finding to the CPUC prior to the use of equipment or installation of structures that require</p> <p><b>Community Education Center Parking.</b> If proposed project work at the Goodrich Substation would result in lena City College Community Education Center parking lot, SCE shall coordinate scheduled closures with the Education Center on the following:</p>	<p>The Plan and record of FAA approval shall be provided to the CPUC prior to commencing helicopter operations.</p> <p>SCE shall provide documentation of the FAA finding to the CPUC prior to the use of equipment or installation of structures that require notification under 14 CFR 77.</p> <p>SCE shall submit the letter to the CPUC 30 days prior to Community Education Center</p>	<p>Prior to Construction</p> <p>Prior to Construction</p> <p>During Construction</p>

APMs and Mitigation Measures	Monitoring Requirements	Timing
<p>ures; and that would be closed.</p> <p>o the CPUC 30 days prior to Community Education Center parking spot closure demonstrating coordination mmunity Center and concurrence from the Pasadena City College Community Education Center that there will mmmodate SCE's work and the Pasadena City College Community Education Center's parking needs.</p>		

( END OF ATTACHMENT 2 )

# **ATTACHMENT 3**

## **NTP-1 Checklist – Permits and Plans Required Prior to NTP-1 Issuance**

### Mitigation Plans Required

- Landscape and Aesthetic Treatment Plan<sup>1</sup> prepared per MM AES-3
- Habitat Restoration and Mitigation Plan<sup>2</sup> prepared per MM BR-3
- Noxious and Invasive Weed Control Plan prepared per MM BR-4
- Workers Environmental Awareness Program prepared per MM BR-5, MM CR-2, MM HZ-2, and MM HY-5
- Southern California Black Walnut Restoration Plan prepared per MM BR-7
- Nesting Bird Management Plan<sup>3</sup> prepared per MM BR-11
- Avian Protection Plan<sup>4</sup> prepared per MM BR-15
- Hazardous Materials Business Plan prepared per MM HZ-1
- Spill Prevention, Control, and Countermeasures Plan prepared per MM HZ-3
- Contaminated Soil Contingency Plan prepared per MM HZ-4
- Well Management Plan<sup>5</sup> prepared per MM HZ-5
- Construction Drainage Plan prepared per MM HY-3
- Noise Control Plan prepared per MM NV-1
- Traffic Control Plan<sup>6</sup> prepared per MM TT-1
- Paleontological Resource Management Plan prepared per APM CUL-1

### Surveys, documentation, and additional requirements per mitigation measures

- Provide estimate of NO<sub>x</sub> emissions and evidence of NO<sub>x</sub> credit purchased for anticipated exceedance of daily thresholds per MM AQ-4
- Pre-construction surveys for special status plants; if plants cannot be avoided then Restoration Plan will be prepared per APM BIO-1
- Pre-construction protocol level surveys for least Bell's vireo and coastal California gnatcatcher per MM BR-12 and MM BR-13
- Provide geotechnical investigation documentation per MM GEO-1
- Calculate the total amount of VOC/ROG ETCs to be purchased per MM AQ-2

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<sup>1</sup> City of Monterey Park review

<sup>2</sup> USFWS and CDFW review

<sup>3</sup> USFWS and CDFW review and comment

<sup>4</sup> USFWS and CDFW review and comment

<sup>5</sup> Coordinate with OII Landfill and US EPA

<sup>6</sup> Caltrans, City of Monterey Park, and City of Montebello review

- Provide documentation from MWD regarding relocation of pipeline per MM PS-1
- Provide verification that the detention basin design is in accordance with LADPW Low Impact Development Standards Manual per MM HY-4

Permits or consultation required<sup>7</sup>

- State Water Resources Control Board - NPDES coverage and SWPPP, Section 401 Permit, Section 404 Permit/Coverage
- USFWS take authorization (if required)
- CDFW take authorization (if required)
- CDFW Section 1600/Lake and Streambed Alteration Agreement
- Caltrans encroachment permit for work within, under, or above a state or interstate highway ROW
- South Coast Air Quality Management District Rule 403 Permit for fugitive dust
- Los Angeles County Department of Regional Planning consultation for Regional Habitat Linkages and Wildlife Corridors
- Los Angeles County Department of Public Works (LADPW) - Construction and Encroachment Permit, Joint Trench Utility Permit, Service Cut Permit
- LADPW - permits required for tree removal and grading for access roads or work areas within Los Angeles County jurisdiction
- LAPDW - encroachment permit for flood control channels/storm drains
- Cities of Monterey Park, Montebello, Commerce, Pasadena, and Bell Gardens - encroachment, tree removal, and grading permits

(END OF ATTACHMENT 3)

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<sup>7</sup> Receipt of permit is in part dependent on the agency