

Executive Summary

Introduction

Pursuant to the California Public Utilities Commission's (CPUC) General Order 131-D, Southern California Edison (SCE) has filed an application (A.03-03-043) with the CPUC for a Permit to Construct the Viejo System Project (proposed project). The Application was filed on March 21, 2003, and includes the Proponent's Environmental Assessment (PEA), prepared by SCE pursuant to Rules 17.1 and 17.3 of CPUC's Rules of Practice and Procedure. The proposed project includes construction of the 220/66/12 kilovolt (kV) Viejo Substation on a 12.5-acre site located in the City of Lake Forest, and a 3.1-mile 66 kV subtransmission line along the existing corridor between the proposed Viejo Substation and the existing Chiquita Substation located in the City of Mission Viejo. In addition, the proposed project would include the replacement of 19 double-circuit tubular steel poles with 13 H-frame structures capable of carrying four 66 kV circuits, and the installation of two optical ground wires. In accordance with the CPUC's General Order 131-D, approval of this project must comply with the California Environmental Quality Act (CEQA). As such, based on an assessment of environmental impacts in the Initial Study (Section B), the CPUC has determined that the proposed project's impacts are either less than significant or can be reduced to less-than-significant levels with the implementation of mitigation measures presented in the Initial Study. Therefore, a Mitigated Negative Declaration has been prepared for adoption by the Commission (Section A).

Public Review Period and Comments

On March 10, 2004, the CPUC distributed the proposed Mitigated Negative Declaration (MND) and supporting Initial Study (IS) [collectively, MND/IS] for the Viejo System Project for public review in compliance with CEQA and CPUC Rule 17.1. The MND/IS was filed with the State Clearinghouse on March 10, 2004, initiating a 30-day public comment period for the MND/IS.

The majority of the issues and concerns raised during the public comment period included aesthetic effects, public health impacts of electric and magnetic fields (EMF), and adverse effects on property values. These issues are addressed both in General Responses to comments, which are intended to address similar issues raised by several commenters, and in individual responses to each comment letter. All comments and associated responses are presented in Section D of this document. Following closure of the public review period on April 9, 2004, written responses to all comments received were prepared and various minor modifications to the MND/IS were made, as appropriate, to reflect these comments.

As stated in the MND/IS, aesthetic impacts of the proposed project are found to be adverse, but less than significant as defined by CEQA. However, in response to numerous comments expressing concern associated with the proposed project's potential aesthetics impacts and the public's stated desire for undergrounding the proposed transmission lines, the CPUC conducted preliminary evaluation of several options that address these concerns. As a result, Appendix 8 (Comparison of Alternatives) of this document provides information on alternatives evaluated by SCE in their PEA, and options evaluated by the CPUC in response to public concerns about the aesthetic effects of the proposed Viejo System Project. These options and the CPUC's associated conclusions are also summarized below.

Project Description

The proposed project would include construction of a new electrical substation within the City of Lake Forest, and the addition of a new 66 kV circuit within an existing transmission corridor crossing portions of the Cities of Lake Forest and Mission Viejo. The transmission corridor currently contains two 220 kV transmission lines and two 66 kV circuits on lattice steel towers and double-circuited tubular steel poles,

respectively. The Viejo System Project proposes to construct H-frame structures to carry the two existing 66 kV circuits and a new 66 kV circuit. These new H-frame structures would replace the existing double-circuited tubular steel poles and would have capacity to carry an additional fourth circuit (a fourth circuit is not proposed). Project components include:

- Construction of the Viejo Substation on a 12.5-acre site adjacent to State Route 241 in the City of Lake Forest,
- Addition of a new 3.1-mile 66 kV line between the Chiquita and the proposed Viejo Substations,
- Replacement of 19 double-circuit tubular steel poles with 13 H-frame structures, and
- Replacement of three 220 kV lattice towers to relocate 0.3 miles of 220 kV line into the Viejo Substation.

The Viejo System Project study area includes the proposed substation site and a 3.1-mile segment of the existing 220/66 kV transmission corridor located between the proposed substation site and the Chiquita Substation. The transmission corridor is located within the Cities of Lake Forest and Mission Viejo, and the site of the proposed substation is located in the Foothill Ranch Planned Community within the City of Lake Forest. All portions of the proposed project are located within Orange County, California.

Summary of Environmental Impacts

Proposed Project

The CPUC determined that all potentially significant environmental impacts of the proposed project could be mitigated to less-than-significant levels. Impacts to the following resources required mitigation:

- Aesthetics,
- Air Quality,
- Biological Resources,
- Cultural Resources,
- Geology and Soils,
- Hazards and Hazardous Materials, and
- Recreation.

With implementation of appropriate mitigation measures presented in the MND/IS, impacts to all resource areas would be less-than-significant as defined by CEQA.

Alternative Options to the Proposed Project

SCE evaluated several route alternatives to the proposed Viejo System Project in accordance with Section IX.B.1.c of CPUC General Order 131-D. Of these, the proposed project and two variations were judged to be feasible and capable of meeting project objectives and were, therefore, carried forward for analysis in SCE's Proponent's Environmental Assessment (PEA). These routes are:

- Viejo System Project, as proposed by SCE in Application No. 03-03-043 and evaluated in the Viejo System Project MND/IS (PEA Option 1A);
- Viejo System Project, with combined overhead and underground transmission line construction (PEA Option 1B); and
- Viejo System Project, with proposed 66 kV subtransmission line constructed entirely underground within city streets (PEA Option 1C).

In response to public comments, the CPUC also considered the following:

- Undergrounding the proposed 66 kV subtransmission line within the existing right-of-way; and
- Alternative tower design (monopole structure).

Each of these alternatives has been evaluated (see analysis in the MND/IS and Appendix 8) for ability to reduce potential environmental effects of the proposed project and technical engineering feasibility. Although CEQA criteria do not include construction cost or EMF, these factors are discussed in Appendix 8 to help evaluate the feasibility of each alternative.

The Combined Overhead/Underground (PEA Option 1B) and Underground in City Streets (PEA Option 1C) Options would capture some of the benefits associated with undergrounding (i.e., aesthetic improvement), but would be subject to additional impacts associated with underground construction within existing city streets (i.e., traffic and noise).

The Monopole Option developed by the CPUC would have similar impacts as the proposed project, but would have a different visual appearance, and potentially slightly less noise and traffic impacts than the proposed project. From a visual standpoint, the monopole design offers the advantage of a structure with only a single vertical pole shaft, but has two drawbacks compared to the proposed H-frame structures – taller height and thicker vertical pole shaft.

The Underground in Existing Transmission Corridor Option presents substantial technical and environmental problems, and at this time is not considered feasible.

As discussed in Appendix 8, with the exception of the Underground in Right-of-Way Option, all options could potentially be mitigated to less-than-significant levels. However, the analysis presented in Appendix 8 is preliminary and not conclusive. To consider adoption of any option or alternative other than the proposed project would require full CEQA environmental analysis and recirculation of a new CEQA document for public review.