CHAPTER 1.0
SUMMARY

1.1 INTRODUCTION

Southern California Edison Company (SCE) proposes to construct a new 230-mile, high-voltage electric transmission line between California and Arizona known as the Devers-Harquahala 500 kilovolt (kV) transmission line. Operation of the proposed line would require that upgrades be made to certain existing SCE electrical transmission facilities in California. The proposed line and transmission facility upgrades are known as the Devers-Palo Verde No. 2 Transmission Project (DPV2). DPV2 would be constructed within existing and new SCE rights-of-way. Construction of DPV2 would add transmission facilities necessary to import additional lower-cost electricity into California from the Southwest.

1.1.1 Proposed Route

1.1.1.1 Devers-Harquahala 500kV Transmission Line

The proposed Devers-Harquahala 500kV transmission line would be constructed from SCE's Devers Substation (Devers) located near Palm Springs, California to the Harquahala Generating Station switchyard (Harquahala), located near the Palo Verde Nuclear Generating Station (PVNGS) west of Phoenix, Arizona as shown on Map 1-1. The proposed line would extend for 230 miles, of which 102 miles are located in Arizona and 128 miles are located in California. The majority of the proposed Devers-Harquahala route would parallel SCE's existing Devers-Palo Verde No. 1 (DPV1) 500kV transmission line.

1.1.1.2 West of Devers 230kV Transmission Upgrade

Upgrades to SCE's existing 230kV transmission system between Devers and SCE's Vista Substation in the City of Grand Terrace and San Bernardino Substation in the City of Redlands, San Bernardino County, as shown on Map 1-2, would include the following:

- Removal of an existing 40-mile, single-circuit wood H-frame 230kV line between Devers and San Bernardino Junction. San Bernardino Junction is the intersection of 230kV transmission line corridors located 3.4 miles south of the San Bernardino Substation.

- Removal of an existing 40-mile, single-circuit lattice steel 230kV line between Devers and San Bernardino Junction.

- Construction of a new 40-mile, double-circuit 230kV line between Devers and San Bernardino Junction within the existing right-of-way.

- Reconductoring of and modification to the existing 40-mile, double-circuit 230kV lattice steel tower line between the Devers Substation and San Bernardino Junction.

- Reconductoring both circuits on an existing 4.8-mile, double-circuit 230kV lattice steel tower line between Vista Substation and San Bernardino Junction.

- Reconductoring one circuit on each of the two existing 3.4-mile, double-circuit 230kV lattice steel tower lines between San Bernardino Substation and San Bernardino Junction.

A detailed description of the proposed route is provided in Chapter 3.

Map 1-1

Map 1-2

1.1.1.3 Related Facilities

In addition to the construction of the proposed Devers-Harquahala 500kV transmission line, and upgrades to the 230kV transmission system west of Devers, related facilities would be constructed to enable safe and efficient system operations. These facilities include series compensation banks, improvements to existing substations, a new telecommunications site and system upgrades, and other equipment as listed below.

Devers-Harquahala 500kV Transmission Line

For series compensation, two series capacitor banks would be constructed—one in Arizona and one in California. Also, two shunt line reactors would be installed—one at Devers Substation and one at Harquahala.

At the Devers Substation, a transformer bank, disconnect switches, circuit breakers, static volt-ampere-reactive (VAR) compensation, and control equipment would be added within the existing substation property boundary.

At the Harquahala Generating Station switchyard, disconnect switches, circuit breakers, and control equipment would be added within the switchyard property boundary.

At the Valley Substation, static VAR compensation would be added within the existing substation property boundary.

West of Devers 230kV Transmission System Upgrades

Conductors, wave traps, disconnect switches, and relays would be replaced within existing substation property boundaries at the Devers, San Bernardino, and Vista substations.

Detailed descriptions of the related facilities are provided in Chapter 3.

1.1.2 Purpose and Need

The DPV2 project is primarily driven by the need to provide additional high-voltage electrical transmission infrastructure to enhance competition among energy suppliers, and increase reliability of supply, which will enable California utilities to reduce energy costs to customers by about $1.1 billion over the life of the project. Specifically, DPV2 will increase transmission capacity by 1,200 megawatts (MW), allowing California access to cost-effective energy in the southwestern United States, and potentially displace higher-cost generation in California.

A detailed discussion of the purpose and need for the project can be found in Chapter 2.

1.1.3 Agency Actions and Approvals

SCE submitted an Application for a Certificate of Public Convenience and Necessity (CPCN) and Proponent's Environmental Assessment (PEA) to the California Public Utilities Commission (CPUC) for the DPV1 project in 1978. The CPUC prepared a Final Environmental Impact Report (FEIR) for the DPV1 project and issued a CPCN for DPV1 in 1979. A Record of Decision (ROD) also was issued by the Bureau of Land Management (BLM) and U.S. Nuclear Regulatory Commission (NRC), which approved the DPV1 project. SCE completed construction of the DPV1 transmission line in 1982.

SCE initially applied to the CPUC for a CPCN for DPV2 in 1985. Following reviews of SCE's PEA (1985) and the CPUC EIR (1987) in compliance with the California Environmental Quality Act (CEQA) and subsequent filing and review of the 1988 Amended Application and PEA (SCE 1988), the CPUC issued an Interim Order in December 1988 that granted a CPCN to SCE allowing construction of the DPV2 project. The approval contained several conditions including compliance with an environmental mitigation program specified in the CPUC EIR (1987). In 1997, intervening events, including electric industry restructuring, led SCE to request abandonment of construction of the DPV2 project, and the CPUC granted SCE's request.

The proposed route crosses federal, state, private, and tribal lands. The majority of the proposed Devers-Harquahala 500kV transmission line would be constructed within the right-of-way located on federal lands, granted in perpetuity to SCE for the DPV2 project by the U.S. Department of Interior (DOI), BLM in the 1989 ROD and Right-of-Way Grant (Appendix B). The right-of-way crosses approximately 57 miles of public land in California and approximately 79 miles of public land in Arizona. The majority of the proposed route is within utility corridors designated in the BLM's Resource Management Plans (RMPs), and approved in compliance with the National Environmental Policy Act (NEPA) by the BLM following completion of a Final Supplemental Environmental Impact Statement (FSEIS) in 1988 and ROD in 1989. Also, the U.S. Fish & Wildlife Service (USFWS) issued a Certificate of Right-of-Way Compatibility (CRC) in 1989 for the portion of the proposed Devers-Harquahala 500kV transmission line that crosses the KOFA National Wildlife Refuge (NWR) in Arizona (Appendix C).

The DPV2 route that was approved in 1989 followed the entire length of the existing DPV1 line and terminated at PVNGS. The proposed Devers-Harquahala transmission line would terminate at the Harquahala Generating Station switchyard, located approximately 16 miles directly northwest of PVNGS (see Map 1-1). Therefore, the proposed Devers-Harquahala route would require the construction of new transmission line from the Harquahala Generating Station switchyard, for a distance of 4.8 miles east to the junction with the DPV1 corridor, adjacent to the existing Harquahala-Hassayampa 500kV transmission line.

SCE is submitting this application and PEA to the CPUC so that the CPUC may issue a CPCN for the project and issue and certify an environmental document (i.e., an EIR or Mitigated Negative Declaration) for the California portion of the project pursuant to CEQA.

SCE will submit an application to the BLM for an Amended Right-of-Way Grant and, if approved, the BLM would issue a Notice to Proceed, allowing construction to be administered by the BLM in California and Arizona.

SCE anticipates, based on discussions with CPUC and BLM staff prior to filing this application, that the CPUC and BLM will work cooperatively and will conduct a joint CEQA/NEPA review of the project in California. This cooperation will include use of a single environmental consultant by both agencies.

The Arizona Power Plant and Transmission Line Siting Committee (Siting Committee) and the Arizona Corporation Commission (ACC) are responsible for the environmental review on state-jurisdictional land in Arizona, and the BLM has jurisdiction for environmental review for federal land. The ACC siting process in Arizona is comparable to CEQA review, and thus, pursuant to Arizona Revised Statute 40-360, et. seq., the ACC will conduct the environmental review of the Arizona portion of the project.

Staff of the ACC have indicated a strong preference that SCE time the filing of its application for a Certificate of Environmental Compatibility to coincide with the CPUC's and BLM's issuance of their draft environmental document. This is to allow the Siting Committee and ACC to complete their environmental permitting process concurrently with the final decision by the CPUC and BLM. (The ACC process timelines are shorter than CEQA and NEPA.)

Thus, for a project that traverses state and federal land in California and Arizona, the CPUC and ACC will conduct permitting processes within their respective states, while the BLM will conduct permitting on federal land in both states. SCE anticipates that all three agencies will work cooperatively together and will likely use a single environmental consultant.

1.1.4 Project Design

Construction of the proposed Devers-Harquahala 500kV transmission line would utilize the same four types of structures as the existing DPV1 and Harquahala-Hassayampa 500kV transmission lines. Of the approximately 784 structures required, approximately 709 would be four-legged, single-circuit lattice steel towers. To reduce potential impacts to agricultural operations, approximately 39 two-legged (or H-frame) single-circuit towers would be used in the Palo Verde Valley south of Blythe, California. Where feasible, structures would be constructed next to the existing DPV1 towers. During construction of DPV1, in anticipation of the eventual construction of DPV2, conductors for a 3-mile portion of the DPV2 line were installed on 13 double-circuit towers that were constructed for the DPV1 line to minimize impact to bighorn sheep habitat in the Copper Bottom Pass of the Dome Rock Mountains in Arizona. Approximately 23 new tubular steel poles would be constructed parallel to the existing Harquahala-Hassayampa 500kV line east of Harquahala.

Because the majority of the Devers-Harquahala line would be constructed within the utility corridor that contains the existing DPV1 line and existing access for line maintenance, construction of new main access roads would not be needed in most locations. Spur roads would be extended from the existing DPV1 main access roads to provide construction access for the proposed Devers-Harquahala 500kV line.

The existing 230kV transmission line system west of Devers consists of one set of double-circuit tower lines and two separate sets of single-circuit lines between Devers and San Bernardino Junction. The proposed 230kV system upgrade west of Devers would require the removal of an existing single-circuit 230kV tower line on wood H-frame structures, and the removal of an existing single-circuit 230kV tower line on lattice steel structures between Devers and San Bernardino Junction; replacement with a new double-circuit 230kV line; and reconductoring and modification of the existing double-circuit 230kV tower line. Also, the upgrade would require reconductoring both circuits on an existing double-circuit 230kV tower line between Vista Substation and San Bernardino Junction. In addition, one circuit on each of the two existing

double-circuit 230kV tower lines between the San Bernardino Junction and San Bernardino Substation would be reconductored. Installing inter-set structures, or raising existing structures, would be required at some locations. Existing access roads would be utilized wherever possible for construction and line maintenance.

A detailed description of the proposed transmission line design and construction process is provided in Chapter 3.

1.1.5 Alternative Routes

1.1.5.1 Subalternate Routes Considered and Eliminated

Alternatives and subalternate routes were evaluated in previous studies for DPV1 and DPV2 (BLM 1978, 1988; CPUC 1987; SCE 1978, 1985, 1988). Four subalternate routes were previously considered in response to concerns that the proposed route would impact the KOFA NWR in Arizona or agricultural lands in California's Palo Verde Valley. Subalternate routes are shown on Map 3-1 in Chapter 3. Four subalternate routes were evaluated in the 1988 DPV2 PEA. The subalternate routes were located as follows: Subalternate 1, north of the KOFA NWR, south of Interstate 10 (I-10); Subalternate 2, north of Blythe through the Colorado River Indian Reservation; Subalternate 3, south of the Palo Verde Valley through a portion of Imperial County; and Subalternate 4, north of the KOFA NWR and north of I-10. The results of the 1988 evaluation indicated that each of the subalternate routes would result in greater levels of potential environmental impact than would the proposed route. None of the subalternate routes parallel the existing DPV1 line. If any of these subalternate routes were utilized, between 31 and 72 miles of new access roads would need to be constructed. New access roads would cause greater amounts of ground disturbance and higher levels of impact to wildlife habitat and movement corridors, sensitive vegetation, cultural resources, and scenic quality. The selection of the proposed route for DPV2 was based on a multi-resource comparison of impacts, followed by agency and public reviews that were undertaken as part of the DPV2 permitting process in the late 1980s. A

detailed analysis of the alternatives and selection of the preferred route were documented in the previous studies for DPV2 in the 1988 PEA, EIR, and SEIS (BLM 1988), and is described in Chapter 3.

1.1.5.2 Subalternate Routes Considered and Evaluated in this PEA

Two subalternate routes at the eastern portion of the proposed route for the Devers-Harquahala 500kV line are considered in this PEA. The Harquahala-West Subalternate Route and the Palo Verde Subalternate Route are described below.

Harquahala-West Subalternate Route

This subalternate route would exit the Harquahala Switchyard directly to the west for 12 miles, then follow the El Paso Natural Gas pipeline corridor northwest for 9 miles to its intersection with the proposed Devers-Harquahala 500kV route. The route would be located in a designated BLM Utility Corridor. New right-of-way would need to be acquired across private, state, and BLM land. The Harquahala-West Subalternate Route would be 14 miles shorter than the proposed route (a total distance of 216 miles), and would require about 48 fewer 500kV towers than the proposed route.

Construction of the Harquahala-West Subalternate route would result in a greater amount of adverse environmental impact than the proposed route. Because this subalternate route would not parallel an existing transmission line, visual impacts to residential viewers would occur. Also, construction of a new access road for a portion of the subalternate route would be required, causing more ground disturbance than the proposed Devers-Harquahala route.

Currently, Arizona Public Service Company (APS) is planning for the Palo Verde Hub to TS-5 500kV transmission line that may parallel DPV1 between the PVNGS interconnection area and the Central Arizona Project (CAP) Canal. If the Palo Verde Hub to TS-5 line is constructed in a

manner that would preclude SCE from entering Harquahala switchyard from the east, then the Harquahala-West subalternate may become SCE's preferred route.

Palo Verde Subalternate Route

The proposed route for the Devers-Harquahala 500kV transmission line is generally parallel to SCE's existing 500kV DPV1, as shown on Map 1-1. Unlike the DPV2 route described in the 1988 PEA, the proposed project involves building a new 500kV transmission line from Devers to the Harquahala Generating Station switchyard terminus, and acquiring the existing Harquahala-Hassayampa 500kV transmission line.

As an alternative to the termination of DPV2 at Harquahala, and SCE's acquisition of the existing Harquahala-Hassayampa 500kV transmission line, the DPV2 line would terminate at the PVNGS Switchyard. This would require the construction of the Palo Verde Subalternate Route, a new 500kV transmission line parallel to the DPV1 transmission line for an additional 10 miles to the PVNGS switchyard. Although environmental impacts of construction and operation of the Palo Verde Subalternate Route would not be substantially more adverse than the environmental impacts resulting from the proposed Devers-Harquahala route, SCE's preference is to construct the proposed Devers-Harquahala route.

1.1.6 Midpoint Substation Alternative Sites

SCE has received an interconnection request from Desert Southwest Power, LLC, the proponent of the Desert Southwest Transmission Project (DSWTP). The proposed DSWTP is a 500kV transmission line that, as currently proposed, would be constructed parallel to SCE's DPV1 and Devers-Harquahala 500kV lines from Blythe, California, to Devers Substation. In an effort to minimize environmental impacts and project costs, SCE and Desert Southwest Power, LLC have agreed to explore ways to integrate the proposed DSWTP and the DPV2 transmission line

projects. Under a joint project proposal, only one of the two 500kV transmission lines would be constructed between Blythe and Devers, since the parties would share a single 500kV transmission line. The joint project would include the construction of a 500kV switchyard called the Midpoint Substation (Midpoint). Midpoint, as proposed, would provide connections for the DPV1 and Devers-Harquahala 500kV lines, and the DSWTP.

The preferred location for Midpoint is about 10 miles southwest of Blythe, adjacent to SCE's DPV1 right-of-way, and immediately west of Imperial Irrigation District's (IID) Blythe-Niland 161kV and Western Area Power Administration's (WAPA) Blythe-Knob 161kV transmission lines. As described in Chapter 3, two alternative sites for the substation have been identified and are evaluated in this PEA.

1.1.7 Environmental Impacts and Mitigation

Because the proposed DPV2 project would be built within established utility corridors and generally adjacent to existing, similar transmission lines, potential environmental impacts would be less than significant. Use of existing access roads for construction and future maintenance would minimize potential soil erosion and disturbance to sensitive plants, wildlife habitat, and wildlife movement corridors. It also would minimize the potential for increased public access into sensitive habitat. Because established utility corridors would be used, existing communities would not be further divided and impacts to land uses would be minimal. Because new structures would be of design and dimensions similar to the existing structures (i.e., DPV1 500kV, west of Devers double-circuit 230kV upgrade, and the Harquahala-Hassayampa 500kV structures), and because they would be installed to approximately match the spans and heights of the existing structures where feasible, the resulting level of visual contrast would be kept to a minimum. With the application of effective mitigation measures incorporated in the project design proposed by SCE, the resultant level of visual impact would be less than significant.

The proposed project is designed to locate structures to avoid archaeological sites. Therefore, impacts to cultural resources would be less than significant. Air quality impacts during construction would be potentially significant, however, implementation of mitigation measures would reduce emissions to levels that are less than significant. Water quality, geology, traffic and transportation, and noise impacts would be less than significant. Impacts to agricultural lands would be minimized by using special towers and would be less than significant. No significant impacts would result to land use, population, housing, and public services due to the temporary nature of construction. Beneficial socioeconomic impacts would result from construction employment, material and equipment purchases, and potential tax revenues to counties in the region.

Detailed descriptions of impacts and mitigation can be found in Chapters 5, 6, and 7.

1.1.8 Public Information and Outreach

SCE conducted public outreach activities for the DPV2 project to encourage communication with local communities, local businesses, elected and appointed officials, and other interested parties. In October 2003, SCE began public outreach and information activities that included distribution of a project fact sheet, in-person interviews, media briefings, open houses, and individual meetings. The project fact sheet was mailed to all property owners within 300 feet of the proposed DPV2 project, and to elected and appointed officials, and other interested parties in the project area. The fact sheet provided basic information about the project scope and purpose. It also provided the names and contact information for local SCE region managers as sources for additional information.

Following the distribution of the project fact sheet, SCE used an independent public involvement specialist to talk directly with a small sample of potentially impacted residents, local businesses,

elected and appointed officials, and others interested in the project. These in-person interviews were conducted during October and November 2003.

In August 2004, SCE provided a project update fact sheet to those persons in the project area that received the 2003 project fact sheet, as well as to those who asked to be added to the project mailing list.

In the summer and fall of 2004, SCE hosted open houses in Blythe, Loma Linda, Calimesa, Beaumont, and Coachella Valley. Invitations were mailed to the list of property owners within 300 feet of the proposed project and to elected and appointed officials, and to other interested persons in the project area. Additionally, SCE advertised the open houses in local newspapers.

Following the open houses, SCE mailed information responding to "Frequently Asked Questions" to property owners within 300 feet of the proposed project right-of-way, as well as to elected and appointed officials, and other interested persons in the project area.

Copies of fact sheets and FAQs are included in Appendix E. The list of property owners located within 300 feet of the proposed project is included in Appendix F.