FILED
4-15-15
04:59 PM

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) for a Certificate of Public Convenience and Necessity for the RTRP Transmission Project	)))))	A1504013

APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT THE RIVERSIDE TRANSMISSION RELIABILITY PROJECT

A FINAL ENVIRONMENTAL IMPACT REPORT CERTIFIED BY THE CITY OF RIVERSIDE AS LEAD AGENCY, ALONG WITH THE ENTIRE ADMINISTRATIVE RECORD OF THE PROCEEDINGS BEFORE RIVERSIDE, ARE BEING SEPARATELY FILED AS AN ARCHIVAL DVD AS EQUIVALENT INFORMATION TO A PROPONENT'S ENVIRONMENTAL ASSESSMENT CONSISTENT WITH CPUC GENERAL ORDER 131-D § IX.A.1.h

BETH GAYLORD
ROBERT PONTELLE
IAN FORREST

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-6980
Facsimile: (626) 302-6736
E-mail: ian.forrest@sce.com

Dated: **April 15, 2015**

APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT THE RIVERSIDE TRANSMISSION RELIABILITY PROJECT

TABLE OF CONTENTS

Section	Title	Page
I.	INTRODUCTION	1
II.	BACKGROUND AND SUMMARY OF REQUEST	3
A.	Purpose Of The Project	3
1.	Ensuring adequate and prudent system reliability with regard to capacity	3
2.	Establishing a second interconnection point	5
B.	Project History And Opposition	6
III.	PROJECT DESCRIPTION	9
IV.	ENVIRONMENTAL REVIEW	11
A.	Acting As The Lead Agency For The Project, Riverside Reviewed And Approved RTRP Pursuant to CEQA, Finding The Proposed 220 kV Route To Be The Environmentally Superior Alternative	11
B.	Alternatives Considered For RTRP	12
V.	PROJECT COST INFORMATION	14
VI.	PUBLIC UTILITIES CODE § 1005 AND ADJUSTMENT OF THE MAXIMUM REASONABLE AND PRUDENT COST ESTIMATE	20
VII.	STATUTORY AND PROCEDURAL REQUIREMENTS	22
A.	Statutory Authority	22
B.	Applicant Description, Correspondence and Communications (CPUC Rule 2.1(a) and (b))	22
C.	Proceeding Category, Need For Hearings, And Schedule (CPUC Rule 2.1(c))	23
D.	Articles of Incorporation (CPUC Rule 2.2; Public Utilities Code § 1004)	24
E.	Deposit for Costs (CPUC Rule 2.5)	24

APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT THE RIVERSIDE TRANSMISSION RELIABILITY PROJECT

TABLE OF CONTENTS (CONTINUED)

F. Financial Balance Sheet and Statement of Income (CPUC Rules 2.3, 3.1(g)) 24

G. Competing Entities for RTRP (CPUC Rule 3.1(b)) 24

H. Permits Required (CPUC Rule 3.1(d)) 24

I. Annual Revenue Requirement (CPUC Rule 3.1(h); Public Utilities Code § 1003(d)) 24

J. Project Plan (Public Utilities Code §§ 1003(b) & (e)) 25

K. CPCN Application Requirements (G.O. 131-D § IX.A) 25

1. A detailed description of the proposed transmission facilities, including the proposed transmission line route and alternative routes, if any; proposed transmission equipment; such as tower design and appearance, heights, conductor sizes, voltages, capacities, substations, switchyards, etc.; and a proposed schedule for certification, construction, and commencement of operation of the facilities. 25

2. A map of suitable scale of the proposed routing showing details of the right-of way in the vicinity of settled areas, parks, recreational areas, scenic areas, and existing electrical transmission lines within one mile of the proposed route 25

3. A statement of facts and reasons why the public convenience and necessity require the construction and operation of the proposed transmission facilities 26

4. A detailed statement of the estimated cost of the proposed facilities. 26

5. Reasons for adoption of the route selected, including comparison with alternative routes, including the advantages and disadvantages of each. 26

6. A schedule showing the program of right-of-way acquisition and construction. 27

7. A listing of the governmental agencies with which proposed route review have been undertaken, including a written agency response to applicant's written request for a brief position statement by that agency. (Such listing shall include The Native American Heritage

TABLE OF CONTENTS (CONTINUED)

Commission, which shall constitute notice on California Indian Reservation Tribal governments.) In the absence of a written agency position statement, the utility may submit a statement of its understanding of the position of such agencies. 27

8. A PEA or equivalent information on the environmental impact of the project in accordance with the provisions of CEQA and this Commission's Rules of Practice and Procedure, Rules 17.1 and 17.3. If a PEA is filed, it may include the data described in Items a through g above....29

L. EMF Discussion (G.O. 131-D § X) 29

M. Public Notice (G.O. 131-D § XI.A) 30

N. Supporting Appendices and Attachments 30

O. Request For Ex Parte Relief....31

P. Request For Timely Relief....31

VIII. CONCLUSION 32

APPENDIX A RTRP PROJECT PLAN ....

APPENDIX B RTRP FIELD MANAGEMENT PLAN ....

APPENDIX C RTRP NOTICE OF APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY....

APPENDIX D CERTIFICATE OF SERVICE FOR RTRP NOTICE OF APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY ....

APPENDIX E RTRP CORPORATE INFORMATION AND ARTICLES OF INCORPORATION....

APPENDIX F RTRP BALANCE SHEET AND STATEMENT OF INCOME AS OF DECEMBER 31, 2014....

APPENDIX G RTRP COMPETING ENTITIES....

APPENDIX H RTRP ANNUAL REVENUE REQUIREMENT....

APPENDIX I RTRP ESTIMATED COSTS ....

APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT THE RIVERSIDE TRANSMISSION RELIABILITY PROJECT

TABLE OF CONTENTS (CONTINUED)

APPENDIX J APRIL 9, 2015 CORRESPONDENCE FROM RIVERSIDE PUBLIC UTILITIES IN SUPPORT OF RTRP.....

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN	)
CALIFORNIA EDISON COMPANY (U 338-E)	)
for a Certificate of Public Convenience and	)
Necessity for the Riverside Transmission	)
Reliability Project	)

APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT THE RIVERSIDE TRANSMISSION RELIABILITY PROJECT

I.

INTRODUCTION

Pursuant to Sections 1001, 1003.5, and 1004 *et seq*. of the California Public Utilities Code, the California Environmental Quality Act ("CEQA") (Public Resources Code § 21000 *et seq*.), the California Public Utilities Commission's ("Commission" or "CPUC") General Order ("G.O.") 131-D, and the Commission's Rules of Practice and Procedure ("CPUC Rule"), Southern California Edison Company ("SCE") requests a Certificate of Public Convenience and Necessity ("CPCN") to permit SCE to construct a portion of the Riverside Transmission Reliability Project ("RTRP" or "Project").

SCE is proposing to construct RTRP with the City of Riverside's ("Riverside's" or the "City's") municipal utility department known as Riverside Public Utilities ("RPU"). On February 5, 2013, after considerable scoping efforts, public planning meetings, and multiple

rounds of public comments on the environmental impact report ("EIR"), Riverside certified RTRP's Final EIR and approved the Project.[1] RPU is generally responsible for the construction of RTRP elements within Riverside's jurisdiction, including the proposed 220/66 kV Wilderness Substation, certain interconnection and telecommunication facilities, and subtransmission lines. In contrast, SCE is responsible for, and this CPCN application is submitted in support of, the construction of RTRP's "ISO Controlled Facilities," *i.e.*, facilities under the operational control of the California Independent System Operator ("CAISO") including: (1) construction of a new 220 kV Substation ("Wildlife Substation") and associated facilities; (2) construction of approximately 10 miles of new, double circuit 220 kV transmission line loop into the Wildlife Substation; (3) certain facilities supporting the interconnection of Riverside's 220/66 kV Wilderness Substation to the Wildlife Substation; and (4) installation of new telecommunications facilities between the existing Mira Loma and Vista Substations and the new Wildlife Substation.[2]

---

[1] The Final Environmental Impact Report and supporting findings are part of the entire Administrative Record of the City of Riverside that is being filed herewith as an archival DVD as equivalent information to a proponent's environmental assessment ("PEA") consistent with G.O. 131-D § IX.A.1.h. For convenience, the archival DVD contains the Final EIR within stand-alone folders. Note, the Final EIR is also included as Administrative Record # 77 (pgs. 04661 to 06677).

[2] CAISO studies suggested that, at minimum, a double-circuited 220 kilovolt ("kV") transmission line (operable at 230 kV), and a 220-66 kV transmission substation (operable at 230-69 kV) were needed. *See RPU Presentation to City Planning Commission regarding RTRP* (Dec. 3, 2009) (Administrative Record ("AR") # 43, pgs. 01395 to 01410). The Final EIR refers to these facilities by their operational capacity rating (230 kV and 69 kV). As is SCE's practice, this Application refers to these facilities by their nominal capacity rating (220 kV and 66 kV).

II.

BACKGROUND AND SUMMARY OF REQUEST

A. Purpose Of The Project

The purpose of the Project is to provide RPU and its customers with adequate transmission capacity to serve existing and projected load, to provide for long-term system capacity for load growth, and to provide needed system reliability.

Riverside is the largest city in Riverside County and has experienced considerable economic growth and development during the past 10 years. It serves as the county seat of government and includes three universities and one community college campus, three major hospitals, the county emergency communications center, a regional water filtration plant, and a convention center. These types of facilities benefit not only Riverside, but the region in general. The City's rapid population growth and commercial development have led to an increase in local electric customers and in their use of electric energy.

1. Ensuring adequate and prudent system reliability with regard to capacity

RPU receives power from the regional transmission system owned by SCE and operated by the CAISO, and provides this power to its customers for uses that benefit both Riverside and some surrounding communities. Currently, the sole source of bulk electrical energy supply for RPU electric customers is through SCE's Vista Substation. Beginning in 2006, RPU's electrical demand has exceeded the available 557 MW of capacity from SCE's Vista Substation, requiring local generation during peak load conditions.[3]

These local generation resources (the Riverside Energy Resource Center ("RERC") and Springs Generating Project ("Springs") were constructed within Riverside in part to mitigate the

---

[3] Expansion of the Vista Substation is not feasible because of design limitations, space, and construction constraints at this location. Further, as explained below, the expansion of SCE's Vista Substation would not address the lack of a second interconnection between the RPU and SCE operated systems. The second interconnection between the RPU and SCE operated systems would provide the needed system reliability.

capacity limits of SCE's Vista Substation until a second point of interconnection could be established. While these generation resources reduce the power that must flow through the transformers at Vista Substation by generating and supplying it locally, they are "peaking" units. As such, the number of hours that the units can operate is limited by the permit requirements issued by the South Coast Air Quality Management District ("SCAQMD").

Further, the use of Springs is economically intermittent and is discounted for planning purposes resulting in a total RPU internal generation of 192 MW. Prudent utility planning requires consideration of the loss of a generator during peak load conditions. A generator is made up of a complex combination of mechanical systems, and failure of any one of them (cooling system, fuel supply, environmental control systems, *etc*.) can result in the loss of the generator for hours, days, or weeks. Therefore, during situations where total generation capacity is diminished through the loss of one generator (an "N-1" condition), RPU's available generating capacity would be between 96 and 144 MW, depending upon the reason for the N-1 condition. In this case, the total capacity to serve load would range between 653 and 701 MW.[4]

It is estimated that the local RPU system load will grow approximately 15 MW per year on average through the year 2026. This represents an average annual growth rate of 2.2%. This average however, does not include the effects of adverse weather, such as extraordinarily high temperatures, which causes the electric load to increase significantly.[5] Peak RPU load is projected to surpass 701 MW (more than the upper range N-1 condition described above and significantly more than Vista Substation's 557 MW capacity) as early as 2019 assuming "normal weather" conditions. For "adverse weather" conditions, peak RPU load is expected to surpass 701 MW as early as 2016. Without RTRP's proposed additional capacity, in order to protect the

---

[4] Internal generation (between 96 and 144 MW) plus Vista Substation transformers (557 MW) equals between 653 and 701 MW.

[5] For example, the annual peak load went from 519 MW in 2004 to 609 MW in 2007 – an increase of 30 MW per year.

majority of the electric system from permanent damage such as from an overload, intentional, controlled interruption of electrical load or "load shedding" may be required.

2. Establishing a second interconnection point

Interruption to electric service occurs due to electric equipment failures, as well as outside forces, such as weather, human error, or accidents. Prudent utility practice requires alternate sources of supply at various points in the electric system. Because RPU receives power through only one single point, the entire City and nearby communities that depend upon services provided through RPU face the risk of losing services each time that connection is interrupted.[6] A new interconnection to SCE's transmission system is therefore needed to provide capacity for existing as well as new electrical load (as described above), as well as an additional point of interconnection for reliability purposes. CAISO recognized the need for another interconnection point in 2006, when it directed that RTRP should be constructed "as soon as possible."[7]

To provide a second point of connection to the SCE grid, RTRP proposes that RPU's Wilderness Substation receive electric energy from SCE's Wildlife Substation and transform it from 220 kV to 66 kV. Two transformers would be installed at Wilderness Substation, similar to those at Vista Substation. In addition, there would be normally open interconnecting 66 kV lines between the east system (Vista Substation) and the west system (Wilderness Substation). Once RTRP is established, if a transformer outage or an entire station outage occurs at Vista or Wilderness Substations, the interconnecting 66 kV lines could be used to relieve transformer overloads, or to restore service to interrupted customers. RERC and Springs generation can also continue to assist in relieving transformer overloads and outages, but are not a substitute for the second point of interconnection with the transmission system.

---

[6] Indeed, in October 2007, electrical service from the Vista Substation was interrupted. As a result, the entire City went dark as all RPU customers – including government, school, hospital, and university facilities – lost power for up to four hours.

[7] *See California ISO Memorandum re Approval of City of Riverside 230 kV Transmission Interconnection Project* (Jun. 7, 2006) (AR # 108, pgs. 08935 to 08940).

Please refer to Final EIR, Vol. 2, Chapter 1 (*Purpose and Need*) for a detailed discussion of the purpose and need for RTRP.

B. Project History And Opposition

Despite RTRP's laudable objectives and fact that the Project has already undergone substantial public proceedings at the local level in Riverside, the Project has generally been opposed by Riverside's municipal neighbor to the north, the City of Jurupa Valley ("Jurupa Valley"). Once CAISO determined the need for RTRP and directed its construction in June 2006, RPU began the development of RTRP's EIR. Over the course of almost three years between January 2007 and November 2009, RPU held nine open house meetings, circulated seven newsletters, published thirty advertisements in local papers, and held an additional scoping meeting regarding RTRP. In July of 2011, Jurupa Valley incorporated as a municipality and after the Draft EIR was circulated by Riverside as lead agency, Jurupa Valley submitted comments in late 2012 and on several occasions thereafter. RPU responded to all comments received regarding the EIR, including those from Jurupa Valley, and on February 5, 2013 the Riverside City Council certified the Final EIR and approved the Project.

A summary of the events since Riverside's approval of RTRP demonstrates that Jurupa Valley remains actively opposed to the Project and has sought to frustrate the Project's proposed development through its entitlement of projects conflicting with RTRP's proposed 220 kV route:

- ***February 2013***, Jurupa Valley filed a complaint with the CPUC alleging the CPUC (not Riverside) should be lead agency under CEQA. The CPUC dismissed the complaint on September 23, 2013 and on April 23, 2014 the California Supreme Court refused to hear Jurupa Valley's appeal, effectively terminating Jurupa Valley's claim.
- ***March 2013***, Jurupa Valley filed CEQA lawsuit in Superior Court challenging Riverside's approval of RTRP. On May 1, 2014, the Los Angeles Superior Court denied Jurupa Valley's challenge and upheld the Final EIR and Riverside's approval of the Project. Jurupa Valley appealed that decision and the appellate case is currently pending.

- ***November 2013***, Jurupa Valley certified an Initial Study/Mitigated Negative Declaration ("IS/MND") for the Riverbend housing project ("Riverbend"), consisting of 466 single family lots on land Riverside identified as the potential location for RTRP's 220 kV transmission line. Despite Riverside and SCE comment letters requesting that the Riverbend IS/MND discuss potential conflicts with RTRP, Jurupa Valley refused and Riverbend's owner (through its counsel, the law firm of Allen Matkins Leck Gamble Mallory & Natsis LLP ("Allen Matkins")) threatened action against SCE for inverse condemnation. Riverbend has since been purchased by Lennar Homes, Inc., who has graded the site and purportedly made other improvements. SCE's efforts to meet with Lennar and explore options for reaching an amicable solution have been unsuccessful.
- ***March 2015***, Jurupa Valley certified an IS/MND in support of a separate, multi-family housing development, the Vernola Marketplace Apartment Community ("Vernola Project") immediately to the north of Riverbend and also on land Riverside identified as part of the environmentally superior route for RTRP's 220 kV transmission line. In the course of approving the Vernola Project, a Jurupa Valley Planning Commissioner asserted one of the motives for approving the Vernola Project was RTRP, transparently representing that Jurupa Valley "need[s] to put something along that freeway if we are going to stymie that project," *i.e.*, RTRP. Again, despite Riverside and SCE comment letters regarding the lack of discussion of potential conflicts with RTRP, Jurupa Valley approved the Vernola Project and the Vernola Project's owner (through counsel, the law firms of Allen Matkins and Rutan & Tucker LLP) threatened action against SCE for inverse condemnation.[8]

---

[8] During its design phase, RTRP was actually re-routed to minimize impacts on the Vernola Marketplace, a separate development immediately to the north of the Vernola Apartments Project and, SCE is informed, is owned by the same developer.

Note, various land owners, certain of whom have since received entitlements to construct the Riverbend and Vernola Apartments projects from Jurupa Valley, submitted correspondence opposing RTRP during the Project's CEQA process, including:

- John A. Ramirez, Rutan & Tucker, LLP on behalf of the Vernola Family and the Sky Country East Investment Co./East LLC (*see* Final EIR, Vol. 1 at 2-250, Comment Letter ZZZ);
- Allan J. Kasen, Vestar Development Co. on behalf of Vernola Marketplace, LLC (*see id.* at 2-253, Comment Letter AAAA);
- K. Erik Friess, Allen Matkins Leck Gamble Mallory & Natsis LLP, representing CV Communities, LLC (*see id.* at 2-267, Comment Letter DDDD); and
- Rick Bondar, McCune & Associates, Inc. (*see id.* at 2-309, Comment Letter RRRR).

Riverside's FEIR responded to each of the comments, questions and/or assertions of these land owners and their agents. In particular, CV Communities, LLC's letter (Comment Letter DDDD) described the nascent conceptualization of what would become the Riverbend Project (currently owned and being developed by Lennar Homes, Inc.). CV Communities, LLC alleged that RTRP did not adequately consider Riverbend in its scoping and development. However, at the time the Draft EIR was prepared, no application for the Riverbend project had even been filed (it was not filed until July 2012) and, as Riverside's FEIR noted in its response to comments, there was insufficient information offered regarding submittal dates, approval dates, or other information to attribute an adverse impact to what was then an undeveloped parcel with speculative plans for improvement (*see* Final EIR, Vol. 1 at 2-267 to 2-318).

Please refer to Final EIR, Vol. 2, Chapter 1 (*Purpose and Need*) for a detailed discussion of the decision making process for RTRP (including comment periods and scoping and public informational meetings), Final EIR, Vol. 2, Chapter 7 (*Public and Agency Coordination*) for a detailed description of public and agency coordination in support of the Project, and Final EIR, Vol. 1, Chapter 2 (*Comments Received and Responses To Comments*) for a detailed description of responses to comments received regarding the Project.

III.

PROJECT DESCRIPTION

RTRP's ISO Controlled Facilities will substantially assist in providing RPU with adequate capacity to serve existing load, to provide for long-term system capacity for load growth, and to provide needed system reliability. The major components of the proposed ISO Controlled Facilities subject to this CPCN Application are summarized below:

Substation

- Construct new 220kV Substation (Wildlife) to interconnect to Riverside's proposed 220kV/66kV Substation (Wilderness);
- Construct one Mechanical Electrical Equipment Room (MEER) at Wildlife Substation;
- Construct 220kV switchrack at Wildlife Substation;
- Loop-in Mira Loma – Vista #1 line into Wildlife Substation;
- Upgrade relay protection at Mira Loma and Vista substations.

Transmission Lines (>200kV)

- Construct approximately ten miles of new double circuit 220kV transmission line;
- Modify an existing tower of the Mira Loma-Vista #1 220kV line to connect the new double circuit line and create a loop from the existing Mira Loma-Vista #1 220 KV Transmission Line into the proposed Wildlife Substation.

Telecommunications

- Install new fiber optic between Pedley and Wildlife Substations;
- Install necessary facilities to utilize RPU's fiber optic network between Vista and Wildlife Substations;
- Install Optical Ground Wire ("OPGW") on the new 220 kV transmission line.

Transmission (<200kV) & Distribution

- Relocate existing distribution lines at eight locations where crossing new, proposed 220kV lines.

Please refer to Final EIR, Vol. 2, Chapter 2 (*Proposed Project Description*) for a detailed discussion of RTRP's proposed project description.

IV.

ENVIRONMENTAL REVIEW

A. Acting As The Lead Agency For The Project, Riverside Reviewed And Approved RTRP Pursuant to CEQA, Finding The Proposed 220 kV Route To Be The Environmentally Superior Alternative

Pursuant to the requirements set forth in CEQA and the Warren-Alquist Act, Riverside City staff conducted a complete environmental analysis of the entire Project as part of Riverside's RTRP approval process. Acting as the lead agency for RTRP, Riverside prepared a Draft EIR and that described the entirety of the proposed RTRP and its potential environmental impacts, and considered a number of alternatives. Despite the fact that CEQA provides that lead agencies circulate a Draft EIR for at least 45 days, Riverside provided a 120-day public review period on the DEIR. Following the close of that extended comment period, Riverside prepared the Final EIR which contains responses to each of the comments submitted by the public and provides further details about the Project.

As approved, the Project has a thorough and comprehensive compliance program to monitor construction and ensure compliance with the license conditions. The CPUC submitted written comments on the Draft EIR to Riverside, and Riverside addressed all of the issues identified by the CPUC in the Final EIR (*see* Final EIR, Vol. 1 at 2-70, 2-74 and 2-75 (RTRP responses to Comment Letters L, N, and O)).

Riverside found that with the implementation of the described mitigation measures, the Project conforms to applicable laws and all potential adverse impacts will be mitigated to the maximum extent feasible.[9] Because Riverside has already reviewed the Project pursuant to

---

[9] *See Resolution No. 22493 Certifying the Final Environmental Impact Report for the Riverside Transmission Reliability Project, Making Certain Findings of Fact Related Thereto, Adopting a Statement of Overriding Considerations, and Adopting a Mitigation Monitoring and Reporting Program, All Pursuant to the California Environmental Quality Act* ("RTRP Findings") (Feb. 5, 2013) (AR # 105, pgs. 08672 to 08818).

CEQA, which satisfies the environmental requirements set forth in Public Utilities Code Sections 1001, 1003.5 and 1004 *et seq*., as well as G.O. 131-D, there is no need for the Commission to conduct any additional environmental review of this Application.[10] SCE hereby submits the entire Administrative Record of proceedings by Riverside, including the City's RTRP Findings adopted in approving RTRP and its certified Final EIR, in lieu of a PEA for this CPCN Application. These documents are being filed herewith as an archival DVD consistent with G.O. 131-D § IX.A.1.h. Please refer to the certified Final EIR, Vol. 1, Chapter 3 (*Environmental Analysis*) and RTRP Findings for a detailed discussion of the potential environmental impacts of the Project and adopted mitigation measures.

SCE believes that the record of environmental review completed by Riverside is detailed and complete, and therefore the CPUC, as a responsible agency, should conclude that the Final EIR complies with CEQA and is therefore adequate to enable the CPUC to act with respect to RTRP according to the timetable set forth in the Permit Streamlining Act (Gov't Code § 65920 *et* seq.), which in this case is 180 days from the date this Application is deemed complete.[11]

B. Alternatives Considered For RTRP

As discussed in Riverside's RTRP Findings, as well as Final EIR, Vol. 2, Chapter 1 (*Purpose and Need*), Chapter 6 (*Project Alternatives*) and Appendices B (*Technical Reports*) and

---

[10] Despite the fact that Jurupa Valley filed an lawsuit challenging the validity of Riverside's approvals and compliance with CEQA in certifying the Final EIR, that challenge was rejected and Riverside's actions were upheld by the Los Angeles Superior Court in *City of Jurupa Valley v. City of Riverside* (Los Angeles Superior Court Case number BS143085). Although that decision has been appealed by Jurupa Valley, no injunctive relief was ever awarded by any court, and CEQA specifically provides that where a case challenging the validity of an EIR has been commenced, responsible agencies "shall assume" that the EIR complied with CEQA and "shall issue" a conditional approval or disapproval of the project so long as no injunction or stay has been issued prohibiting the project from being carried out.

[11] Government Code § 65952 establishes this requirement: "(a) Any public agency which is a responsible agency for a development project that has been approved by the lead agency shall approve or disapprove the development project within whichever of the following periods of time is longer: (1) Within 180 days from the date on which the lead agency has approved the project. (2) Within 180 days of the date on which the completed application for the development project has been received and accepted as complete by that responsible agency. …"

D (*Siting Study*), Riverside and SCE explored various routing, siting, and system alternatives to provide for the load growth and to increase system reliability. Specifically, Riverside and SCE considered various alternative 220 kV transmission line routes and substation locations, as well as alternative system voltages (including 115 kV, 345 kV and 500 kV), non-wire alternatives (including new generation, distributed generation, and energy conservation and load management measures), and alternative technologies (including undergrounding and direct current transmission). Having considered these various options, Riverside and SCE then explored the proposed Project, "No Project," and "Van Buren Offset" Alternatives in depth in the Final EIR.

The Van Buren Offset Alternative would generally propose a 220 kV transmission line paralleling Van Buren Boulevard and connecting to the Mira Loma – Vista #1 220 kV transmission line. The Van Buren Offset Alternative would not result in a decrease in significant environmental impacts in comparison to the proposed Project and, in fact, would increase impacts to some environmental resource categories. This alternative would also displace two single family residences. Final EIR Figure 6.5-1 depicts the proposed and Van Buren Offset Alternative route.

V.

PROJECT COST INFORMATION

In compliance with Public Utilities Code § 1005.5(a),[12] SCE developed estimated costs for the proposed alternative identified for RTRP. Riverside is the lead agency for this Project and the cost information relates to ISO Controlled Facilities described in the approved Final EIR.

For RTRP's proposed 220 kV route, SCE estimated the costs for the Project's direct costs and contingency. The following describes the estimated costs for RTRP's ISO Controlled Facilities broken down by cost type. All costs are provided in 2015 constant dollars, unless otherwise noted. As shown in the Project cost tables included in Appendix I, the total estimated direct costs for RTRP's ISO Controlled Facilities presented in this testimony is estimated at $234.5 million in 2015 constant dollars.[13] SCE will seek to recover certain prudently incurred costs associated with RTRP through Commission-jurisdictional rates as may be warranted. Construction of RTRP is scheduled to begin in October 2017 and to be completed by February 2019. A schedule for RTRP's construction is included in this Application as part of the Project Plan at Appendix A.

A. Estimated Direct Costs of RTRP

The estimated direct SCE costs of $234.5 million include costs for preliminary and final engineering, construction, labor, materials, real estate, telecommunications, permitting and

---

[12] Pub. Util. Code § 1005.5(a) provides that: "Whenever the commission issues to an electrical . . . corporation a certificate authorizing the new construction of any addition to or extension of the corporation's plant estimated to cost greater than fifty million dollars ($50,000,000), the commission shall specify in the certificate a maximum cost determined to be reasonable and prudent for the facility."

[13] SCE proposes the use of deflation factors to convert actual expenditures in future years to their equivalent value in 2015 dollars. SCE believes the deflation factors should be calculated using an index such as the Handy-Whitman Index of Public Utility Construction Costs and considering other factors that have significant influences on the cost of the project.

project support activities based on preliminary scopes of work for the different Project components. SCE and Riverside will bear the total costs associated with the Project and related interconnection facilities per the terms of an Interconnection Facilities Agreement ("IFA") which has been accepted for filing by FERC under the Federal Power Act.[14] The IFA provides that SCE will:

- engineer, design, construct, install, own, operate and maintain Wildlife Substation;
- engineer, design, construct, install, own, operate and maintain the approximately 10-mile Mira Loma-Vista 220 kV Line Loop into Wildlife Substation;
- interconnect the 220/66 kV Riverside Wilderness Substation to Wildlife Substation;
- purchase from Riverside the land required for Wildlife Substation; and
- once the approved Project is approved, reimburse Riverside for certain amounts paid in support of the licensing of the Project.[15]

The estimated costs were developed based on SCE's extensive and recent experience in estimating and constructing similar recent projects. SCE's estimated direct costs include labor, materials, equipment, and real estate. Labor costs include field personnel and project support costs. Field personnel costs are based on assumptions for the make up of various crews required to safely and effectively construct the project's components. Project support costs represent resources required to support the construction activities, including but not limited to project management, project controls, environmental monitoring, and permitting. Material and equipment costs include but are not limited to estimates for steel, concrete, transformers, insulators, transmission and distribution conductors, and OPGW. Estimated real estate costs are

---

[14] *See Interconnection Facilities Agreement between the City of Riverside and Southern California Edison Company* (Mar. 16, 2009) ("IFA") (AR # 33, pgs. 01191 to 01236).

[15] *See id.*, IFA ¶¶ 2.8, 14.5. For its part, Riverside will engineer, design, construct, install, own, operate and maintain other elements of RTRP's scope including the new Wilderness Substation, new double-circuit 69 kV subtransmission lines, and associated telecommunications facilities. Please refer to Final EIR, Vol. 2, Chapter 2 (*Project Description*) for a detailed description of RTRP's scope of work.

also included for expected ROWs required from private and public lands. Estimates of RTRP's expected direct costs are listed in the Project cost tables included in Appendix I.

B. SCE's Contingency Estimate

Cost estimates for a project of this magnitude are subject to multiple uncertainties, especially where, as here with RTRP, the estimates are based on preliminary scopes of work. As such, it is reasonable, prudent, and consistent with industry practice to assume a level of contingency to help mitigate the risks and uncertainties given this early stage of project development.

"Contingency" is defined by the Association for the Advancement of Cost Engineering ("AACE")[16] as "specific provision for unforeseeable elements of cost within the defined project scope." Similarly, Electric Power Research Institute ("EPRI") defines contingency as a reasonable necessity to address scope uncertainty. In addition to AACE's and EPRI's standards, SCE's contingency standards are based on the professional judgment and experience of SCE's engineering and construction professionals. Based on SCE's experience, it is appropriate to apply a 15% to 35% contingency for a project at this stage. This level contingency does not necessarily mean that SCE will spend this full amount, but it reflects that it is a reasonable estimate of what the maximum cost is forecast to be at the current conceptual level of design and planning.

For RTRP, SCE's cost estimate includes contingency assumption of 15% based on the conceptual scope of work and schedule for the project. SCE's contingency attempts to account for uncertainties related to the following:

- Unforeseeable elements of cost within the defined project scope;
- Material quantity variances within the defined scope;

---

[16] Formerly known as the American Association of Cost Engineers ("AACE"); see AACE's Project and Cost Engineers' Handbook.

- Minor material cost uncertainties;
- Labor hour variances within the defined scope;
- Minor labor cost uncertainties;
- Minor fluctuations in currency exchange rates;
- Reasonable outage scheduling risk; and
- Reasonable impacts from delays or constraints during nesting bird season.

Contingency estimates cannot reasonably provide for the following:

- Major project scope changes, for example, the Commission directs SCE to, among other things, (1) build a different transmission line route, (2) use a different transmission technology, (3) use different substation technologies; and/or (4) to use a different substation site;
- Major schedule changes;
- Major price increases for material and labor;
- Regulatory approval delays;
- Subsurface conditions that are significantly different from presently available information;
- Unforeseeable environmental conditions and/or mitigation requirements, including significant bird nesting related delays;
- Restrictive judgments that prevent or significantly limit SCE's ability to acquire properties needed for new transmission line right-of-way;
- Expensive property acquisition and/or condemnation costs for the acquisition of properties needed for new transmission line right-of-way;
- Intervenor and/or property owner legal challenges leading to project delay;
- Third-party legal challenges resulting in project delay and/or requiring extensive legal defense efforts;
- Unavailability of skilled labor due to nationwide and worldwide demand, and/or strikes;

- Unavailability of materials and/or equipment due to nationwide and worldwide demand, late delivery or faulty materials;
- Contractor nonperformance; and
- *Force majeure* events, property or casualty losses.

Including contingency in any finding of maximum prudent costs would be consistent with Commission precedent based on all prior CPCN's granted to SCE. Excluding contingency would not only contradict recent precedent and industry best practices, but it would be unrealistic to assume that there will not be variances in material quantities or labor hour estimates once the project engineering is finalized, future market pricing at the time of expenditures are known, and the environmental requirements are determined.

C. Summary of Estimated ISO Controlled Facility Costs For RTRP

The costs associated with RTRP's ISO Controlled Facilities are broken down in the Project cost tables in Appendix I. The left side of the table lists the potential scope elements grouped by the following categories: licensing, substation, transmission lines rated 200 kV or greater, transmission lines rated below 200 kV, distribution line work, telecommunication elements, real estate, and environmental work. The estimated costs are provided next to each element.

The direct cost estimates are represented in 2015 constant dollars, as reflected in the Project cost tables in Appendix I. Including a contingency level consistent with SCE's recent CPCN applications and what a reasonable contingency would be for a project at the conceptual stage of engineering, the total project direct costs for RTRP's ISO Controlled Facilities are estimated at $234.5 million in 2015 constant dollars.[17]

---

[17] Direct costs for Riverside's scope of work, *i.e.*, non-ISO Controlled Facilities, is expected to total $14.7 million for a total RTRP direct cost of $249.2 million in 2015 constant dollars.

There are two methods by which SCE can recover financing costs: (1) Allowance for Funds Used During Construction ("AFUDC"), and (2) Construction Work in Progress ("CWIP") in SCE's rate base. FERC has authorized CWIP, which is applicable to the qualified elements of scope contained in SCE's petition.[18] Consistent with past CPCNs, the financing costs during the project development and execution are not included in a CPCN finding of maximum prudent cost. However, SCE is providing an estimate of the financing costs during the project development and execution. For the Proposed Minimum scope that does not include contingency, the estimated financing costs during project development and execution are estimated to be $22.5 million in nominal dollars. This is based on the cost estimates included in Appendix I and uses conceptual schedule assumptions. Actual financing costs may vary and will be based on actual spend and schedule and use of contingency.

Similarly, the operating and maintenance ("O&M") costs for the associated assets are not included in a CPCN maximum prudent cost finding. RTRP is expected to have assets in service for decades. Currently, there are many uncertainties concerning the final scope of RTRP and, therefore, the scope of future O&M for a major project like RTRP. Not only would the final scope impact what needs to be operated and maintained for decades, but the related requirements and field methods are expected to evolve over time. Ultimately, SCE will seek recovery for the O&M costs in a rate case proceeding. SCE currently estimates annual incremental O&M costs of approximately $50,000 in 2015 constant dollars. This is based on simplified system average calculations for per mile O&M functions found in SCE's 2015 General Rate Case filing. SCE expects future actual operating and maintenance costs to vary from this amount and vary from year to year given that the project useful life spans over decades.

---

[18] *See* 134 FERC ¶61,181 in Docket EL11-10-000, issued March 11, 2011.

VI.

PUBLIC UTILITIES CODE § 1005 AND ADJUSTMENT OF THE MAXIMUM REASONABLE AND PRUDENT COST ESTIMATE

In D.07-01-040, the Commission recognized that the FERC will ultimately decide how much of the costs the utility may reflect in transmission rates.[19] However, SCE recognizes that the Commission believes it is obligated by Public Utilities Code Section 1005.5(a) to specify "a maximum cost determined to be reasonable and prudent for the facility."[20] The Commission has recognized that the costs submitted in a CPCN application are based on conceptual or preliminary design estimates, and that after the CPCN is granted, the cost estimates will be adjusted based on the route selected by the Commission, the final engineering design, final environmental mitigation requirements, and many other factors.

Public Utilities Code Section 1005.5(b) specifically allows the utility applicant to seek to increase the maximum cost that the Commission finds is reasonable and prudent, after the decision granting the CPCN has been issued, if the utility determines that the cost, in fact, has increased.[21] The Commission should address an appropriate request for an increase in the cost finding pursuant to Public Utilities Code Section 1005.5(b). Any future adjustments would be

---

[19] *See* D.07-01-040 ("DPV2") mimeo., p. 45. ("While FERC will ultimately decide how much of the costs for this project SCE may recoup in transmission rates, we have jurisdiction pursuant to Pub. Util. Code § 1005.5(a) and the responsibility to specify in the CPCN a "maximum cost determined to be reasonable and prudent for the DPV2 project.").

[20] Pub. Util. Code § 1005.5(a) provides that: "Whenever the commission issues to an electrical . . . corporation a certificate authorizing the new construction of any addition to or extension of the corporation's plant estimated to cost greater than fifty million dollars ($50,000,000), the commission shall specify in the certificate a maximum cost determined to be reasonable and prudent for the facility."

[21] As set forth in Pub. Util. Code § 1005.5(b): "After the certificate has been issued, the corporation may apply to the commission for an increase in the maximum cost specified in the certificate. The Commission may authorize an increase in the specified maximum cost, if it finds and determines that the cost has in fact increased and that the present or future public convenience and necessity require construction of the project at the increased cost; otherwise, it shall deny the application." (Pub. Util. Code § 1005.5(b).).

based on changes in cost estimates, once SCE completes final, detailed design-based construction estimates, necessary to reflect:

1. Adjustments in Project costs because of any unanticipated delays in starting the project or inflation;
2. Adjustments in Project costs as a result of final design criteria;
3. Additional Project costs resulting from the adopted mitigation measures (and mitigation monitoring program); and
4. Events related to equipment and raw materials, for example, the price of steel, concrete, other raw materials, and equipment that, in fact, increase the cost of the project.

For all the above reasons, SCE suggests that the Commission should adopt a maximum reasonable and prudent cost estimate based on the numbers and scope presented in this filing and authorize SCE to seek adjustments to the estimate through the advice letter process if the cost increases in the future.

VII.

STATUTORY AND PROCEDURAL REQUIREMENTS

The Public Utilities Code, CPUC Rules, and G.O. 131-D require various items of information to be submitted with CPCN applications:

A. Statutory Authority

This Application is made pursuant to the provisions of G.O. 131-D, Public Utility Code Sections 1001, 1003.5 and 1004, the CPUC Rules, and prior orders and resolutions of the Commission.

B. Applicant Description, Correspondence and Communications (CPUC Rule 2.1(a) and (b))

The applicant is Southern California Edison Company or "SCE" herein, an investor-owned public utility engaged in the business of generating, transmitting, and distributing electric energy in portions of Central and Southern California. SCE's properties, which are located primarily within the State of California, consist mainly of hydroelectric and thermal electric generating plants, together with transmission and distribution lines and other property necessary in connection with its business. In conducting such business, SCE operates an interconnected and integrated electric utility system.

SCE is organized and existing under the laws of the State of California. SCE's principal place of business is 2244 Walnut Grove Avenue, Post Office Box 800, Rosemead, California 91770. Please address correspondence or communications in regard to this Application to:

Ian Forrest, Senior Attorney
Southern California Edison Company
Post Office Box 800
Rosemead, California 91770
Phone: (626) 302-6980
Fax: (626) 302-6736
Email: ian.forrest@sce.com

C. Proceeding Category, Need For Hearings, And Schedule (CPUC Rule 2.1(c))

In compliance with CPUC Rule 2.1(c), SCE is required to state in this Application "the proposed category for the proceeding, the need for hearing, the issues to be considered, and a proposed schedule." SCE proposes to categorize this Application as a rate setting proceeding. SCE anticipates that hearings will be necessary. This proceeding involves the Commission's consideration and issuance of a CPCN authorizing SCE to construct RTRP.

SCE suggests the following proposed schedule for this Application. As described above, the schedule assumes the Commission will approve RTRP at a Commission Meeting prior to the expiration of a 180-day period following the Commission's acceptance of a complete application, as required by Government Code Section 65952:

Date	***Action Item***
4/15/2015	Application Filed
4/20/15 (within 10 days of filing)	Daily Calendar Notice Appears. Notice of filing of the Application by direct mail, advertisement and posting complete (G.O. 131-D § XI(A)) Deliver copies of the Notice to the CPUC Public Advisor and Energy Division (G.O. 131-D § XI(A)(3))
5/15/2015 (30 days after notice is mailed or published)	Protest period ends (G.O. 131-D § XII)
5/28/2015	Replies to protests (G.O. 131-D § XII; CPUC Rule 2.6)
5/18/2015	CPUC Finds Application Complete (G.O. 131-D § IX(A)(1))
6/2015	Prehearing Conference
6/2015	Opening Testimony Due
7/2015	Rebuttal Testimony Due
8/2015	Evidentiary Hearings
8/2015	Concurrent Opening Briefs Due
9/2015	Concurrent Reply Briefs Due
10/2015	Proposed Decision Issued
10/2015	Comments on Proposed Decision Due (CPUC Rule 14.3(a))
10/2015	Reply Comments Due (CPUC Rule 14.3(d))
11/2015	Final Decision Issued

D. Articles of Incorporation (CPUC Rule 2.2; Public Utilities Code § 1004)

Pursuant to CPUC Rule 2.2 and Public Utilities Code Section 1004, a copy of SCE's Restated Articles of Incorporation, as effective on March 2, 2006, and as presently in effect, certified by the Secretary of State, was filed with the Commission on March 14, 2006, in connection with Application No. 06-03-020, and is by reference made a part hereof. A statement of SCE's corporate information is attached hereto as Appendix E.

E. Deposit for Costs (CPUC Rule 2.5)

CPUC Rule 2.5 provides that an applicant include a deposit, to be applied to the costs the Commission incurs to prepare a negative declaration or an environmental impact report, when the Commission is acting as the lead agency pursuant to CEQA. As discussed in section IV of this Application, the Commission is not the CEQA lead agency, since CEQA for the Project was conducted by Riverside. As such, SCE has not provided a deposit with this Application for the preparation of CEQA documents.

F. Financial Balance Sheet and Statement of Income (CPUC Rules 2.3, 3.1(g))

Pursuant to CPUC Rules 2.3 and 3.1(g), SCE's most recently available balance sheet and income statement are attached hereto as Appendix F.

G. Competing Entities for RTRP (CPUC Rule 3.1(b))

Pursuant to CPUC Rule 3.1(b), the names and addresses of all utilities, corporations, persons, or entities with which the proposed construction is likely to compete, and names of cities and counties within which service will be rendered are attached hereto as Appendix G.

H. Permits Required (CPUC Rule 3.1(d))

Pursuant to CPUC Rule 3.1(d), agency permits likely required for the Project are described on pages 2-94 to 2-97 in Final EIR, Vol. 2, Section 2.8 (*Agency Permits*) and Table 2.9-1 (*Potential Permits and Approval for the Proposed Project and Alternatives*).

I. Annual Revenue Requirement (CPUC Rule 3.1(h); Public Utilities Code § 1003(d))

Pursuant to CPUC Rule 3.1(h) and Public Utilities Code Section 1003(d), SCE's annual revenue requirement is attached hereto as Appendix H.

J. Project Plan (Public Utilities Code §§ 1003(b) & (e))

Pursuant to Public Utilities Code Sections 1003(b) and (e), a Project Plan describing plans for the project's implementation, design, construction management, and cost control is attached hereto as Appendix A.

K. CPCN Application Requirements (G.O. 131-D § IX.A)

Information required in a CPCN Application is discussed in the following text. The CPCN Application requirements of G.O. 131-D Section IX.A are shown in bold italics, and SCE's discussion follows in plain text.

> ***1. A detailed description of the proposed transmission facilities, including the proposed transmission line route and alternative routes, if any; proposed transmission equipment; such as tower design and appearance, heights, conductor sizes, voltages, capacities, substations, switchyards, etc.; and a proposed schedule for certification, construction, and commencement of operation of the facilities.***

Pursuant to G.O. 131-D Section IX.A.1.a, CPUC Rule 3.1(a), and Public Utilities Code Section 1003(a), a detailed description of the proposed Project and alternatives considered may be found in Final EIR, Vol. 2, Chapters 1 (*Purpose and Need*), 2 (*Project Description*), 6 (*Project Alternatives*) and Appendices B (*Technical Reports*) and D (*Siting Study*). The proposed Project is also described in the RTRP Findings approving the Project, also filed herewith filed as an archival DVD (*see* AR # 105, pgs. 08672 to 08817). A project schedule is provided in the Project Plan, attached at Appendix A.

> ***2. A map of suitable scale of the proposed routing showing details of the right-of way in the vicinity of settled areas, parks, recreational areas, scenic areas, and existing electrical transmission lines within one mile of the proposed route.***

Pursuant to G.O. 131-D Section IX.A.1.b and CPUC Rule 3.1(c), a map of the regional setting of the Project is shown on Final EIR, Vol. 2, Figure 2.1-1 (page 2-3). A map of the surrounding local setting, including the existing Mira-Loma 220 kV Transmission Line, is shown on Final EIR, Vol. 2, Figure 6.6-1 (page 6-115). A more detailed map showing the 220 kV transmission line route is also included at Final EIR, Vol. 2, Figure 2.3-3 (page 2-15l). Maps showing scenic areas, trails, school sites, parks and recreational areas in the vicinity of the

proposed route are shown at Final EIR, Vol. 2, Figures 3.2.14-1 and 3.2.14-2 (pages 3-309 and 3-310).

3. A statement of facts and reasons why the public convenience and necessity require the construction and operation of the proposed transmission facilities.

Pursuant to G.O. 131-D Section IX.A.1.c and CPUC Rule 3.1(c), the purpose of the Project is to provide RPU and its customers with adequate transmission capacity to serve existing and projected load, to provide for long-term system capacity for load growth, and to provide needed system reliability. The facts and reasons why the public convenience and necessity require RTRP's construction and operation are described in Section III of this Application, as well as Final EIR, Vol. 2, Chapter 1 (*Purpose and Need*). CAISO found the Project was needed "as soon as possible," as articulated in the June 7, 2006 CAISO approval of RTRP.[22]

4. A detailed statement of the estimated cost of the proposed facilities.

Costs, including contingency, for RTRP's ISO Controlled Facilities are estimated at $234.5 million in 2015 constant dollars. Pursuant to the terms of the IFA, SCE is paying the costs of the ISO Controlled Facilities. RTRP's estimated costs are discussed in detail in Section V of this Application and the estimated Project cost tables attached in Appendix I.

5. Reasons for adoption of the route selected, including comparison with alternative routes, including the advantages and disadvantages of each.

Pursuant to G.O. 131-D Section IX.A.1.e, a detailed discussion of the reasons for the adoption of the transmission route selected and comparison of the alternatives considered may be referenced in Final EIR, Vol. 2, Chapter 6 (*Project Alternatives*) as well as within the RTRP Findings approving the Project (*see* AR # 105, pgs. 08672 to 08817). Both the Final EIR and RTRP Administrative Record are filed as an archival DVD herewith consistent with G.O. 131-D Section IX.A.1.h.

---

[22] *See California ISO Memorandum re Approval of City of Riverside 230 kV Transmission Interconnection Project* (Jun. 7, 2006) (AR # 108, pgs. 08935 to 08940).

6. A schedule showing the program of right-of-way acquisition and construction.

Pursuant to G.O. 131-D Section IX.A.1.f, a schedule for RTRP's construction, including all procurement activities, is included in Appendix A, Project Plan.

7. A listing of the governmental agencies with which proposed route review have been undertaken, including a written agency response to applicant's written request for a brief position statement by that agency. (Such listing shall include The Native American Heritage Commission, which shall constitute notice on California Indian Reservation Tribal governments.) In the absence of a written agency position statement, the utility may submit a statement of its understanding of the position of such agencies.

Pursuant to G.O. 131-D Section IX.A.1.g, the Final EIR, Vol. 2, Chapter 7 (*Public and Agency Coordination*) describes the agency and public consultation regarding the Project and participation in the development of the Final EIR. Agencies and organizations having jurisdiction and/or specific project interest were contacted by RPU and SCE environmental staff to inform them of the RTRP, to verify the status and availability of existing environmental data, and to solicit their input on specific aspects of the study process. Concerns and recommendations for the Proposed Project were discussed and documented in the project database and records system. They were used to inform the route identification and refinement process. These agency coordination meetings are documented in Table 7.2-4 of the Final EIR, Vol. 2.

In addition to correspondence distributed to request or verify resource data collected in the study area, RPU distributed letters to various agencies throughout the Proposed Project area to provide information on the Proposed Project background, purpose and need, and Proposed Project description, as well as to identify any concerns the agencies might have. Agency letters also were mailed with a copy of the Notice of Preparation ("NOP"), notifying agencies that the Draft EIR was being prepared and requesting formal scoping comments. At that time, a Notice of Completion and Environmental Document Transmittal was filed with the State Clearinghouse. A copy of the NOP and receiving agencies is included with RTRP's Administrative Record (*see* AR ## 37 (pgs. 01323 to 01352) and 40 (pgs. 01378 to 01380)). Written comments by these

agencies, as well as the Project's response may be referenced in the Final EIR, Vol. 2, Chapter 2 (*Comments Received And Responses To Comments*).

The Native American Heritage Commission (NAHC) was contacted regarding Native American groups that might have historic ties to and interest in the proposed Project area. NAHC provided a list of American Indian Tribes that should be contacted for the Proposed Project. These tribes were included as part of the proposed Project's mailing list and received agency letters as well as copies of formal notifications, such as the NOP. Final EIR, Appendix E (*Native American Communications*) contains communications with Native American Tribes and the NAHC. Final EIR, Appendix G (*American Indian Social Impact Assessment*) was developed pursuant to the Project's outreach and assisted RTRP's accounting for tribal interests in the environmental planning process and transmission line route selection.

Of note, and as referenced in Section II above, Jurupa Valley submitted various correspondence suggesting its opposition to RTRP, including letters from:

- Jurupa Community Services District (*see* Final EIR, Vol. 1 at 2-60 and 2-68, Comment Letters E and J);
- City of Jurupa Valley (*see id.* at 2-69, 2-311 and 2-327, Comment Letters K, TTTT, and IIIII);
- Jurupa Area Recreation and Park District (*see id.* at 2-71, Comment Letter M); and
- Peter M. Thorson, Richards, Watson & Gershon, representing the City of Jurupa Valley (*see id.* at 2-109, Comment Letter P).

These comments generally alleged that Riverside's coordination efforts and impact assessment passively neglected, failed to recognize, or purposefully excluded Jurupa Valley. The Project responded to each of the assertions of Jurupa Valley. The Project's responses included *Master Response # 8: Involvement of the City of Jurupa Valley*, *Master Response # 10: Alternatives*, *Master Response # 12: Land Use Plan Consistency*, and *Master Response # 14: Local Benefits of 230 kV Route* (*see* Final EIR, Vol. 1 at 2-17 through 2-50) wherein the Project

team describes opportunities provided to Jurupa Valley for involvement and consistency of the Project with CEQA and GO 131-D.

Riverside has re-emphasized the critical need for the Project, and encouraged the timely acceptance and consideration of this Application. Riverside's letter of April 9, 2015 is attached hereto as Appendix J.

The City of Norco submitted a comment letter suggesting an expanded discussion of land use regulations adopted by jurisdictions with resources potentially affected by the proposed Project. This requested discussion was included in the Final EIR (*see* Final EIR, Vol. 1 at 2-62 to 2-64, Comment Letter G).

Also of note, the Commission submitted three comment letters in response to the Draft EIR, offering comments regarding the proposed project description, environmental analyses, project alternatives, and certain technical reports, among other things (*see id.* at 2-70, 2-74 and 2-75, Comment Letters L, N, O). Riverside's Final EIR responded to each of the comments offered by the Commission.

8. A PEA or equivalent information on the environmental impact of the project in accordance with the provisions of CEQA and this Commission's Rules of Practice and Procedure, Rules 17.1 and 17.3. If a PEA is filed, it may include the data described in Items a through g above.

Pursuant to G.O. 131-D Section IX.A.1.h, the Final Environmental Impact Report and RTRP Findings are being filed herewith as an archival DVD as equivalent information to a PEA.

L. EMF Discussion (G.O. 131-D § X)

G.O. 131-D Section X, requires that an Application for a CPCN describe measures taken to reduce potential exposure to electric and magnetic fields (EMF) generated by the proposed facilities. A complete description of EMF-related issues is contained in SCE's Field Management Plan for this Project at Appendix B. Based on its evaluation of RTRP's proposed route and configuration, SCE will apply no-cost and low-cost magnetic field reduction measures documented in the Field Management Plan according to the CPUC EMF Policy.

M. Public Notice (G.O. 131-D § XI.A)

Pursuant to G.O. 131-D Section XI.A, notice of this Application shall be given within ten days of filing the Application by mail, by advertisement, and by posting: (1) to certain public agencies and legislative bodies; (2) to owners of property located on or within 300 feet of the Project area; (3) by advertisement in a newspaper or newspapers of general circulation; and (4) by posting a notice on-site and off-site at the project location.

SCE has given, or will give, proper notice within the time limits prescribed in G.O. 131-D. The Notice will be published in the Riverside Press Enterprise and Riverside County Record which are the local newspapers of general circulation in the County of Riverside and Cities of Riverside, Jurupa Valley, and Norco. A copy of the Notice and listing of publishing newspapers is provided as Appendix C. A Certificate of Service confirming distribution of the CPCN Notice to owners of property located on or within 300 feet of the Project area, relevant governmental agencies, and certain interested parties is attached hereto as Appendix D.

N. Supporting Appendices and Attachments

The Final EIR and supporting findings are part of the entire Administrative Record of the City of Riverside that is being filed herewith as an archival DVD as equivalent information to a PEA consistent with G.O. 131-D § IX.A.1.h. In addition, RTRP Appendices A through J listed below are made a part of this Application:

- Appendix A: Project Plan (including Project schedule).
- Appendix B: Field Management Plan
- Appendix C: Notice of Application for a Certificate of Public Convenience and Necessity.
- Appendix D: Certificate of Service for Notice of Application for a Certificate of Public Convenience and Necessity
- Appendix E: SCE Corporate Information and Articles of Incorporation
- Appendix F: SCE Balance Sheet and Statement of Income as of December 31, 2014
- Appendix G: Competing Entities

- Appendix H: Annual Revenue Requirement
- Appendix I: Estimated Costs
- Appendix J: April 9, 2015 Correspondence from Riverside Public Utilities in Support of RTRP

O. Request For Ex Parte Relief

SCE requests that the relief requested in this Application be provided ex parte.

P. Request For Timely Relief

SCE requests the Commission issue a decision within the time limits of the schedule proposed by SCE in this application.

VIII.

CONCLUSION

SCE respectfully requests the Commission issue a CPCN for RTRP.

Respectfully submitted,

IAN M. FORREST

/s/ Ian Forrest

By: Ian Forrest

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-6980
Facsimile: (626) 302-6736
E-mail: ian.forrest@sce.com

April 15, 2015

Appendix A

RTRP PROJECT PLAN

APPENDIX A
RIVERSIDE TRANSMISSION RELIABILITY PROJECT PLAN

1.0 INTRODUCTION

This document is a part of Southern California Edison's Riverside Transmission Reliability Project ("RTRP") application for a Certificate of Public Convenience and Necessity ("CPCN") to the California Public Utilities Commission ("CPUC"). This document either includes materials required by California Public Utilities Code ("PUC") Section 1003 or indicates by references to where they can be found in the RTRP CPCN Application, the RTRP Final Environmental Impact Report ("EIR") certified by the City of Riverside provided in lieu of and as information equivalent to a Proponent's Environmental Assessment ("PEA"), or elsewhere.

2.0 PROJECT SCOPE

The scope of RTRP, including the preliminary engineering and design information required by PUC Section 1003 (a), may be found in the RTRP Final EIR, Vol. 2, Chapter 2 (*Proposed Project Description*).

3.0 OBJECTIVES AND GOALS

The objectives of RTRP may be found in RTRP Final EIR, Vol. 2, Section 2.2 (*Project Objectives*). During RTRP execution (final engineering, procurement, and construction) phase, SCE's goals include:

- Completing RTRP engineering, procurement, and construction activities by the scheduled operating date;
- Ensuring sufficient resources are planned and available to perform work;
- Managing project budget and providing cost control and oversight; and
- Complying with applicable design, construction, and safety standards.

4.0 PROJECT IMPLEMENTATION PLAN

4.1 Introduction

RTRP will be managed on a Project Management matrix basis. Extensive support will be required at the start of final engineering and will continue through the end of the project. Construction cannot begin until after regulatory approval. Any required permits identified in the regulatory approval process, must also be obtained before construction can begin in the affected areas.

4.2 Project Management Team

The Project Manager has the overall responsibility and commensurate authority for successful completion of the project. Responsibilities include: planning, obtaining regulatory approvals, cost, scheduling, execution (final engineering, procurement, and construction), and the overall quality of the project. Project work will be conducted using a matrix based Project Management model. All personnel assigned to the project functionally report to the Project Manager.

During the life of the project, the Project Management Team ("PMT") will consist of a number of specialized teams and support personnel with special areas of expertise. Because of the changing nature of project needs as it progresses through the development, regulatory approval, and construction phases, the PMT will also change to meet the project needs.

The PMT is responsible for the successful implementation of RTRP. It is responsible for tracking costs, scope changes, schedules, and construction performance. The PMT will have regular meetings to discuss project status, review performance, and identify any special needs or significant concerns.

4.3 Project Construction Management Plan

The complexities of RTRP may necessitate the use of alternative construction management approaches. The construction management option to be selected will be based on SCE's need to optimize its use of limited "in-house" resources and expertise in the most effective manner. The major construction management approaches under consideration are:

1. SCE performs engineering, design, and manages construction using SCE and contractor labor; or,
2. SCE develops "Engineering, Procurement, and Construction (EPC)" specifications which are the basis for selecting and managing an EPC contractor to perform engineering, design, and construction.

SCE construction management personnel and the PMT will review SCE and contractor costs and progress on a regular basis. Table A-1, "Project Schedule", identifies the preliminary design, construction, completion, and operational dates for each of the major project components.

5.0 Cost Estimate

The cost estimate required by PUC Section 1003 (c) may be found in Section V, Project Cost Information, and Appendix I, of the CPCN Application.

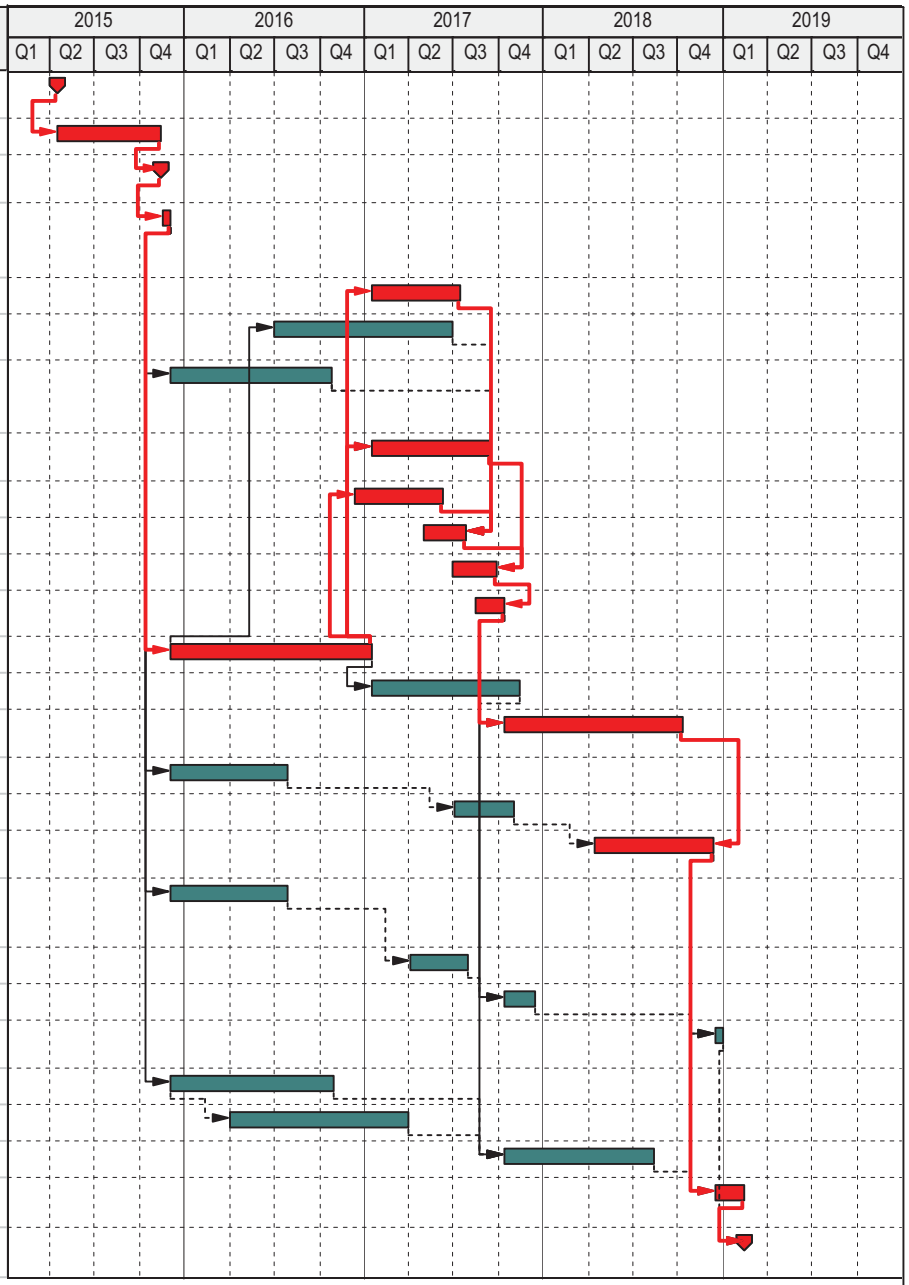
6.0 Cost Control Plan

RTRP will have a project cost control plan. Depending upon which resource(s) is(are) utilized to perform final engineering, procurement, and construction activities on this project. A schedule of values consistent with the Work Breakdown Structure ("WBS") will serve as the basis for progress payments made to the contractor, or the measure of performance for SCE construction crews. If utilized, the contractor shall submit for SCE's review and approval its payment request, together with all required supporting documentation, for all work performed in the subject period.

The contract price may only be changed by a Field Change Order or by a Change Request (CR) approved by the Project Manager. The value of any work covered by a Field Change Order will be determined by one of the following methods:

- Where the work involved is covered by unit prices contained in the Contract Documents- apply the unit prices to the quantities of the items.
- By a mutually agreed lump sum itemized and supported by substantiating data.
- Actual Cost of the Work plus a Contractor's fee.

Activity ID	Activity Name	Duration (months)	Start	Finish
01	File CPCN Application			15-Apr-15
10	CPUC Regulatory Review	7	16-Apr-15	13-Nov-15
14	CPUC Issues Notice of Determination			13-Nov-15
20	Prepare & Issue ATP for Engineering, Procurement & Property Acquisition	0.5	16-Nov-15	01-Dec-15
30	Grading Permits	6	17-Jan-17	14-Jul-17
32	Other Licenses & Permits	12	30-Jun-16	29-Jun-17
40	Property Acquisition - Document Preparation & Negotiation	11	02-Dec-15	27-Oct-16
42	Property Acquisition - Condemnation (If Required)	8	17-Jan-17	13-Sep-17
50	Environmental Surveys & Prepare Mitigation Plans	6	12-Dec-16	09-Jun-17
52	Prepare & Submit NTP's	3	01-May-17	28-Jul-17
54	CPUC Reviews & Issues NTP's	3	29-Jun-17	27-Sep-17
56	Prepare & Issue ATP's for Construction	2	14-Aug-17	11-Oct-17
60	Transmission - Engineering	13.5	02-Dec-15	16-Jan-17
62	Transmission - Procurement	10	17-Jan-17	14-Nov-17
64	Transmission - Construction & Testing	12	12-Oct-17	11-Oct-18
70	Telecom - Engineering	8	02-Dec-15	29-Jul-16
72	Telecom - Procurement	4	03-Jul-17	31-Oct-17
74	Telecom - Construction & Testing	8	16-Apr-18	14-Dec-18
80	Ancillary Substations (Mira Loma & Vista) - Engineering	8	02-Dec-15	29-Jul-16
82	Ancillary Substations - Procurement	4	03-Apr-17	31-Jul-17
84	Ancillary Substations - Construction & Testing	2	12-Oct-17	14-Dec-17
86	Ancillary Substations - In-Service Testing	0.5	17-Dec-18	31-Dec-18
90	Wildlife Substation - Engineering	11	02-Dec-15	28-Oct-16
92	Wildlife Substation - Procurement	12	01-Apr-16	31-Mar-17
94	Wildlife Substation - Construction & Testing	10	12-Oct-17	14-Aug-18
96	Wildlife Substation - In-Service Testing	2	17-Dec-18	14-Feb-19
99	Forecasted Project In-Service Date (OD)			14-Feb-19



Outstanding Activity
Critical Path Activity
Outstanding Milestone
Critical Path Milestone

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL® Company

RPU RTRP

Appendix B

RTRP FIELD MANAGEMENT PLAN

TABLE OF CONTENTS

I. Executive Summary 4
II. Background Regarding EMF And Public Health Research On EMF 8
III. Application Of the CPUC's "No-Cost And Low-Cost" EMF Policy to The Proposed Project 11
IV. Project Description 14
V. Evaluation of "no-cost and low-cost" magnetic Field reduction design options 18
VI. Final Recommendations for Implementing "No-cost and Low-cost" Magnetic Field Reduction Design Options 30
VII. Appendix A: Two-Dimentional Model Assumptions and Year 2020 Forecasted Loading Conditions 32

LIST OF TABLES

Table 1. Summary of "No-cost and Low-cost" Magnetic Field Reduction Design Options 6
Table 2. Calculated Magnetic Field Levels for Model 1 21
Table 3. Calculated Magnetic Field Levels for Model 2 24
Table 4. Calculated Magnetic Field Levels for Model 3 28
Table 5. Substation Checklist 29
Table 6. Year 2020 Forecasted Peak Loading Conditions for the Proposed Project 33
Table 7. Year 2020 Forecasted Peak Loading Conditions without the Proposed Project 33

LIST OF FIGURES

Figure 1. RTRP 230 kV Line Route 16
Figure 2. Preliminary Layout of the Proposed Wildlife 230 kV Substation 17
Figure 3. Proposed 230 kV LST Structures Design - Model 1 20
Figure 4. Calculated Magnetic Field Levels for Model 1 21
Figure 5. Proposed 230 kV TSP Structures Design - Model 2 23
Figure 6. Calculated Magnetic Field Levels for Model 2 24
Figure 7. Proposed 230 kV Near a School - Model 3 25
Figure 8. Calculated Magnetic Field Levels for Model 3 27

List of Terms

CDHS	California Department of Health Services
CGC	Conductor Ground Clearance
CPCN	Certificate of Public Convenience and Necessity
CPUC	California Public Utilities Commission
EIR	Environmental Impact Report
ELF	Extremely Low Frequency
EMF	Electric and Magnetic Fields
FEIR	Final Environmental Impact Report
FMP	Field Management Plan
GO	General Order
Hz	hertz
IARC	International Agency for Research on Cancer
ICNIRP	International Commission on non-Ionizing Radiation Protection
kV	kilovolt
LST	lattice steel tower
MFields	Magnetic Fields
mG	milligauss
µT	microTesla
MGC	Minimum Ground Clearance
N/A	Not Applicable
NIEHS	National Institute of Environmental Health Sciences
NIH	National Institutes of Health
NRPB	National Radiation Protection Board
PTC	Permit to Construct
RAPID	Research and Public Information Dissemination
ROW	Right-of-way
RPU	Riverside Public Utility
RTRP	Riverside Transmission Reliability Project
SCE	Southern California Edison
T/L	transmission line
TSP	tubular steel pole
WHO	World Health Organization

I. EXECUTIVE SUMMARY

This document is Southern California Edison Company's ("SCE") Field Management Plan ("FMP") for the proposed Riverside Transmission Reliability Project ("RTRP") ("Proposed Project"). The City of Riverside Public Utilities Department ("RPU") and SCE are proposing to construct and operate the Proposed Project in the Cities of Riverside, Norco, and Jurupa Valley and in unincorporated areas of Riverside County. The Proposed Project would involve the construction and operation of new double-circuit 230 kilovolt ("kV") transmission lines ("T/Ls") and new 69 kV subtransmission lines. It also would include a new SCE 230 kV electrical substation (Wildlife Substation) and a new RPU 230/69 kV electrical substation (Wilderness Substation) to be constructed adjacent to one another east of the Riverside Regional Water Quality Control Plant, as well as a number of 69 kV subtransmission circuits and other improvements. SCE would construct, maintain and operate the 230 kV T/Ls and the Wildlife Substation, while Riverside and RPU would construct, maintain and operate the Wilderness Substation and the 69 kV subtransmission lines. The Proposed Project would reduce RPU's dependence on the SCE's Vista Substation, which currently is the sole external source of electricity to RPU. The Proposed Project would provide for an increase in reliability and safety by providing another source path to RPU and sufficient electric capacity to meet future load growth and system demand in the City of Riverside.

SCE provides this FMP in order to inform the public, the California Public Utilities Commission ("CPUC"), and other interested parties of its evaluation of "no-cost and low-cost" magnetic field reduction design options for SCE's portions of the Proposed Project, and SCE's proposed plan to apply these design options where feasible from an engineering perspective and still within the cost parameters recommended by the CPUC. This FMP has been prepared in accordance with CPUC Decision No. 93-11-013 and Decision No. 06-01-042 relating to extremely low frequency ("ELF")[1] electric and magnetic fields ("EMF"). This FMP also provides background on the current status of scientific research related to possible health effects of EMF, and a description of the CPUC's EMF policy.

The "no-cost and low-cost" magnetic field reduction design options that are incorporated into the design of the Project are mainly as follows:

- Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction as a "no-cost" measure
- Arrange conductors of the proposed T/L for magnetic field reduction as a "no-cost" measure
- Raise the lowest conductor ground clearance (CGC) from the SCE design standard by 10 feet near populated areas as a "low-cost" option where final engineering deems feasible
- Place distribution underground cable duct banks greater than 12 feet from side of the Proposed Substation property line as a "no-cost" measure

[1] "Extremely low frequency" is defined as the frequency range from 3 Hz to 3,000 Hz.

The "no-cost and low-cost" magnetic field reduction design options that SCE considered for the Proposed Project are summarized in Table 1.

SCE's plan for applying the above "no-cost and low-cost" magnetic field reduction design options for the Proposed Project is consistent with the CPUC's EMF policy and with the direction of leading national and international health agencies. Furthermore, the plan complies with SCE's EMF Design Guidelines[2], and with applicable national and state safety standards for new electrical facilities.

[2] EMF Design Guidelines, July 2006.

Table 1. Summary of "No-cost and Low-cost" Magnetic Field Reduction Design Options						
Area No.	**Location**[3]	**Adjacent Land Uses**[4]	**EMF Reduction Design Options Considered**	**Estimated Cost to Adopt**	**Design Option(s) Adopted? (Yes/No)**	**Reason(s) if not adopted**
Model 1 – Lattice Steel Tower ("LST") Structures	At certain locations throughout the entire 230 kV T/L route	1,2,3,4,5,6	• Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction • Arrange conductors of the proposed T/L for magnetic field reduction • Raise the lowest conductor ground clearance	• "No-cost"[5] • "No-cost" • "Low-cost"	• Yes • Yes • Yes[6]	
Model 2 – Tubular Steel Pole ("TSP") Structures	Typical structures throughout the entire 230 kV T/L route	1,2,3,4,5,6	• Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction • Arrange conductors of the proposed T/L for magnetic field reduction • Raise the lowest conductor ground clearance	• "No-cost" • "No-cost" • "Low-cost"	• Yes • Yes • Yes[6]	
Model 3 – Near Elementary School on 68th Street	Section paralleling SCE's Mira Loma-Corona-Pedley 66 kV Subtransmission Line near the Louis Vandermolen Fundamental Elementary School on 68th Street	1,2,5,6	• Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction • Arrange conductors of the proposed T/L for magnetic field reduction • Raise the lowest conductor ground clearance	• "No-cost" • "No-cost" • "Low-cost"	• Yes • Yes • No	Less than 15% reduction

[3] This column shows the major cross streets, existing transmission lines, or substation name(s) as reference points.

[4] Land use codes are as follows: 1) schools, licensed day-cares, and hospitals, 2) residential, 3) commercial/industrial, 4) recreational, 5) agricultural, and 6) undeveloped land.

[5] "No-cost" options were included in the preliminary design and continue to be included in the design of the Proposed Project.

[6] The preliminary Engineering design suggests this may be a reasonable option. However, at final Engineering, this option will be determined for feasibility at the appropriate sections.

Area No.	Location[7]	Adjacent Land Uses[8]	EMF Reduction Design Options Considered	Estimated Cost to Adopt	Design Option(s) Adopted? (Yes/No)	Reason(s) if not adopted
Wildlife Substation	**Near the northeast corner of Wilderness Avenue and Ed Perkic Street**	**3,5,6**	• Place distribution underground cable duct banks greater than 12 feet from side of the Proposed Substation property line	• "No-cost"	• Yes	

[7] This column shows the major cross streets, existing transmission lines, or substation name(s) as reference points.

[8] Land use codes are as follows: 1) schools, licensed day-cares, and hospitals, 2) residential, 3) commercial/industrial, 4) recreational, 5) agricultural, and 6) undeveloped land.

II. BACKGROUND REGARDING EMF AND PUBLIC HEALTH RESEARCH ON EMF

There are many sources of power frequency[9] electric and magnetic fields, including internal household and building wiring, electrical appliances, and electric power transmission and distribution lines. There have been numerous scientific studies about the potential health effects of EMF. After many years of research, the scientific community has been unable to determine if exposures to EMF cause health hazards. State and federal public health regulatory agencies have determined that setting numeric exposure limits is not appropriate.[10]

Many of the questions about possible connections between EMF exposures and specific diseases have been successfully resolved due to an aggressive international research program. However, potentially important public health questions remain about whether there is a link between EMF exposures and certain diseases, including childhood leukemia and a variety of adult diseases (e.g., adult cancers and miscarriages). As a result, some health authorities have identified magnetic field exposures as a possible human carcinogen. As summarized in greater detail below, these conclusions are consistent with the following published reports: the National Institute of Environmental Health Sciences ("NIEHS") 1999[11], the National Radiation Protection Board ("NRPB") 2001[12], the International Commission on non-Ionizing Radiation Protection ("ICNIRP") 2001, the California Department of Health Services ("CDHS") 2002[13], the International Agency for Research on Cancer ("IARC") 2002[14] and the World Health Organization ("WHO") 2007[15] .

The federal government conducted EMF research as a part of a $45 million research program managed by the NIEHS. This program, known as the EMF RAPID (Research and Public Information Dissemination), submitted its final report to the U.S. Congress on June 15, 1999. The report concluded that:

- "The scientific evidence suggesting that ELF-EMF exposures pose any health risk is weak."[16]

---

9 In U.S., it is 60 Hertz (Hz).

10 CPUC Decision 06-01-042, p. 6, footnote 10.

11 National Institute of Environmental Health Sciences' Report on Health Effects from Exposures to Power-Line frequency Electric and Magnetic Fields, NIH Publication No. 99-4493, June 1999.

12 National Radiological Protection Board, Electromagnetic Fields and the Risk of Cancer, Report of an Advisory Group on Non-ionizing Radiation, Chilton, U.K. 2001.

13 California Department of Health Services, An Evaluation of the Possible Risks from Electric and Magnetic Fields from Power Lines, Internal Wiring, Electrical Occupations, and Appliances, June 2002.

14 World Health Organization / International Agency for Research on Cancer, IARC Monographs on the evaluation of carcinogenic risks to humans (2002), Non-ionizing radiation, Part 1: Static and extremely low-frequency (ELF) electric and magnetic fields, IARCPress, Lyon, France: International Agency for Research on Cancer, Monograph, vol. 80, p. 338, 2002.

15 WHO, Environmental Health Criteria 238, EXTREMELY LOW FREQUENCY FIELDS, 2007.

16 National Institute of Environmental Health Sciences, NIEHS Report on Health Effects from Exposures to Power-Frequency Electric and Magnetic Fields, p. ii, NIH Publication No. 99-4493, 1999.

- "The NIEHS concludes that ELF-EMF exposure cannot be recognized as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard."[17]
- "The NIEHS suggests that the level and strength of evidence supporting ELF-EMF exposure as a human health hazard are insufficient to warrant aggressive regulatory actions; thus, we do not recommend actions such as stringent standards on electric appliances and a national program to bury all transmission and distribution lines. Instead, the evidence suggests passive measures such as a continued emphasis on educating both the public and the regulated community on means aimed at reducing exposures. NIEHS suggests that the power industry continue its current practice of siting power lines to reduce exposures and continue to explore ways to reduce the creation of magnetic fields around transmission and distribution lines without creating new hazards."[18]

In 2001, Britain's NRPB arrived at a similar conclusion:

> "After a wide-ranging and thorough review of scientific research, an independent Advisory Group to the Board of NRPB has concluded that the power frequency electromagnetic fields that exist in the vast majority of homes are not a cause of cancer in general. However, some epidemiological studies do indicate a possible small risk of childhood leukemia associated with exposures to unusually high levels of power frequency magnetic fields."[19]

In 2002, three scientists for CDHS concluded:

> "To one degree or another, all three of the [CDHS] scientists are inclined to believe that EMFs can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's disease, and miscarriage.
>
> They [CDHS] strongly believe that EMFs do not increase the risk of birth defects, or low birth weight.
>
> They [CDHS] strongly believe that EMFs are not universal carcinogens, since there are a number of cancer types that are not associated with EMF exposure.
>
> To one degree or another they [CDHS] are inclined to believe that EMFs do not cause an increased risk of breast cancer, heart disease, Alzheimer's disease, depression, or symptoms attributed by some to a sensitivity to EMFs. However, all three scientists had judgments that were "close to the dividing line between believing and not believing" that EMFs cause some degree of increased risk of suicide. For adult leukemia, two of the scientists are 'close to the dividing line

---

17 *Ibid.*, p. iii.

18 *Ibid.*, p. 37 – 38.

19 NRPB, NRPB Advisory Group on Non-ionizing Radiation Power Frequency Electromagnetic Fields and the Risk of Cancer, NRPB Press Release March 2001.

between believing or not believing' and one was 'prone to believe' that EMFs cause some degree of increased risk."[20]

Also in 2002, the World Health Organization's ("WHO") IARC concluded:

> "ELF magnetic fields are possibly carcinogenic to humans"[21], based on consistent statistical associations of high-level residential magnetic fields with a doubling of risk of childhood leukemia...Children who are exposed to residential ELF magnetic fields less than 0.4 microTesla (4.0 milliGauss "mG") have no increased risk for leukemia…. In contrast, "no consistent relationship has been seen in studies of childhood brain tumors or cancers at other sites and residential ELF electric and magnetic fields."[22]

In June of 2007, the WHO issued a report on their multi-year investigation of EMF and the possible health effects. After reviewing scientific data from numerous EMF and human health studies, they concluded:

> "Scientific evidence suggesting that everyday, chronic low-intensity (above 0.3-0.4 μT [3-4 mG]) power-frequency magnetic field exposure poses a health risk is based on epidemiological studies demonstrating a consistent pattern of increased risk for childhood leukemia."[23]
>
> "In addition, virtually all of the laboratory evidence and the mechanistic evidence fail to support a relationship between low-level ELF magnetic fields and changes in biological function or disease status. Thus, on balance, the evidence is not strong enough to be considered causal, but sufficiently strong to remain a concern."[24]
>
> "A number of other diseases have been investigated for possible association with ELF magnetic field exposure. These include cancers in both children and adults, depression, suicide, reproductive dysfunction, developmental disorders, immunological modifications and neurological disease. The scientific evidence supporting a linkage between ELF magnetic fields and any of these diseases is much weaker than for childhood leukemia and in some cases (for example, for cardiovascular disease or breast cancer) the evidence is sufficient to give confidence that magnetic fields do not cause the disease"[25]
>
> "Furthermore, given both the weakness of the evidence for a link between exposure to ELF magnetic fields and childhood leukemia, and the limited impact on public

---

[20] CDHS, An Evaluation of the Possible Risks From Electric and Magnetic Fields (EMFs) From Power Lines, Internal Wiring, Electrical Occupations and Appliances, p. 3, 2002.

[21] IARC, Monographs, Part I, Vol. 80, p. 338.

[22] *Ibid*., p. 332 – 334.

[23] WHO, Environmental Health Criteria 238, EXTREMELY LOW FREQUENCY FIELDS, p. 11 - 13, 2007.

[24] *Ibid*., p. 12.

[25] *Ibid*., p. 12.

health if there is a link, the benefits of exposure reduction on health are unclear. Thus the costs of precautionary measures should be very low."[26]

III. APPLICATION OF THE CPUC'S "NO-COST AND LOW-COST" EMF POLICY TO THE PROPOSED PROJECT

Recognizing the scientific uncertainty over the connection between EMF exposures and health effects, the CPUC adopted a policy that addresses public concern over EMF with a combination of education, information, and precaution-based approaches. Specifically, Decision 93-11-013 established a precautionary based "no-cost and low-cost" EMF policy for California's regulated electric utilities based on recognition that scientific research had not demonstrated that exposures to EMF cause health hazards and that it was inappropriate to set numeric standards that would limit exposure.

In 2006, the CPUC completed its review and update of its EMF Policy in Decision 06-01-042. This decision reaffirmed the finding that state and federal public health regulatory agencies have not established a direct link between exposure to EMF and human health effects,[27] and the policy direction that (1) use of numeric exposure limits was not appropriate in setting utility design guidelines to address EMF,[28] and (2) existing "no-cost and low-cost" precautionary-based EMF policy should be continued for proposed electrical facilities. The decision also reaffirmed that EMF concerns brought up during Certificate of Public Convenience and Necessity ("CPCN") and Permit to Construct ("PTC") proceedings for electric and transmission and substation facilities should be limited to the utility's compliance with the CPUC's "no-cost and low-cost" policies.[29]

The decision directed regulated utilities to hold a workshop to develop standard approaches for EMF Design Guidelines and such a workshop was held on February 21, 2006. Consistent design guidelines have been developed that describe the routine magnetic field reduction measures that regulated California electric utilities consider for new and upgraded T/Land transmission substation projects. SCE filed its revised EMF Design Guidelines with the CPUC on July 26, 2006.

"No-cost and low-cost" measures to reduce magnetic fields would be implemented for this Project in accordance with SCE's EMF Design Guidelines. In summary, the process of evaluating "no-cost and low-cost" magnetic field reduction measures and prioritizing within and between land usage classes considers the following:

---

[26] *Ibid*., p. 13.

[27] CPUC Decision 06-01-042, Findings of Fact No. 5, mimeo. p. 19 ("As discussed in the rulemaking, a direct link between exposure to EMF and human health effects has yet to be proven despite numerous studies including a study ordered by this Commission and conducted by DHS.").

[28] CPUC Decision 06-01-042, mimeo. p. 17 - 18 ("Furthermore, we do not request that utilities include non-routine mitigation measures, or other mitigation measures that are based on numeric values of EMF exposure, in revised design guidelines or apply mitigation measures to reconfigurations or relocations of less than 2,000 feet, the distance under which exemptions apply under GO 131-D. Non-routine mitigation measures should only be considered under unique circumstances.").

[29] CPUC Decision 06-01-042, Conclusion of Law No. 2, mimeo.p. 21, ("EMF concerns in future CPCN and PTC proceedings for electric and transmission and substation facilities should be limited to the utility's compliance with the Commission's low-cost/no-cost policies.").

1. SCE's priority in the design of any electrical facility is public and employee safety. Without exception, design and construction of an electric power system must comply with all applicable federal, state, and local regulations, applicable safety codes, and each electric utility's construction standards. Furthermore, transmission and subtransmission lines and substations must be constructed so that they can operate reliably at their design capacity. Their design must be compatible with other facilities in the area and the cost to operate and maintain the facilities must be reasonable.

2. As a supplement to Step 1, SCE follows the CPUC's direction to undertake "no-cost and low-cost" magnetic field reduction measures for new and upgraded electrical facilities. Any proposed "no-cost and low-cost" magnetic field measures, must, however, meet the requirements described in Step 1 above. The CPUC defines "no-cost and low-cost" measures as follows:

   - "No-cost" measures, in aggregate, should:
     - Have already been incorporated into the preliminary engineering design due to SCE design standards that have EMF reduction measures built-in.
     - Incur no additional cost to implement the recommended measures.
   - "Low-cost" measures, in aggregate, should:
     - Cost in the range of 4 percent of the total project cost.
     - Result in magnetic field reductions of "15% or greater at the utility R-O-W [right-of-way]…"[30]

   The CPUC Decision stated,

   > "We direct the utilities to use 4 percent as a benchmark in developing their EMF mitigation guidelines. We will not establish 4 percent as an absolute cap at this time because we do not want to arbitrarily eliminate a potential measure that might be available but costs more than the 4 percent figure. Conversely, the utilities are encouraged to use effective measures that cost less than 4 percent."[31]

3. The CPUC provided further policy direction in Decision 06-01-042, stating that, "[a]lthough equal mitigation for an entire class is a desirable goal, we will not limit the spending of EMF mitigation to zero on the basis that not all class members can benefit."[32] While Decision 06-01-042 directs the utilities to favor schools, day-care facilities and hospitals over residential areas when applying "low-cost" magnetic field reduction measures, prioritization within a class can be difficult on a project case-by-case basis because schools, day-care facilities, and hospitals are often integrated into residential areas, and many licensed day-care facilities are housed in private homes, and can be easily moved from one location to another.

---

[30] CPUC Decision 06-01-042, p. 10.
[31] CPUC Decision 93-11-013, § 3.3.2, p.10.
[32] CPUC Decision 06-01-042, p. 10.

> Therefore, it may be practical for public schools, licensed day-care centers, hospitals, and residential land uses to be grouped together to receive highest prioritization for "low-cost" magnetic field reduction measures. Commercial and industrial areas may be grouped as a second priority group, followed by recreational and agricultural areas as the third group. "Low-cost" magnetic field reduction measures will not be considered for undeveloped land, such as open space, state and national parks, and Bureau of Land Management and U.S. Forest Service lands. When spending for "low-cost" measures would otherwise disallow equitable magnetic field reduction for all areas within a single land-use class, prioritization can be achieved by considering location and/or density of permanently occupied structures on lands adjacent to the projects, as appropriate.

This FMP contains descriptions of various magnetic field models and the calculated results of magnetic field levels based on those models. These calculated results are provided only for purposes of identifying the relative differences in magnetic field levels among various transmission or subtransmission line design alternatives under a specific set of modeling assumptions and determining whether particular design alternatives can achieve magnetic field level reductions of 15 percent or more. The calculated results are not intended to be predictors of the actual magnetic field levels at any given time or at any specific location if and when the Project is constructed. This is because magnetic field levels depend upon a variety of variables, including load growth, customer electricity usage, and other factors beyond SCE's control. The CPUC affirmed this in D. 06-01-042 stating:

> "Our [CPUC] review of the modeling methodology provided in the utility [EMF] design guidelines indicates that it accomplishes its purpose, which is to measure the relative differences between alternative mitigation measures. Thus, the modeling indicates relative differences in magnetic field reductions between different T/L construction methods, but does not measure actual environmental magnetic fields."[33]

[33] CPUC Decision 06-01-042, p. 11.

IV. PROJECT DESCRIPTION

This document is Southern California Edison Company's ("SCE") Field Management Plan ("FMP") for the proposed Riverside Transmission Reliability Project ("RTRP") ("Proposed Project"). The City of Riverside Public Utilities Department ("RPU") and SCE are proposing to construct and operate the Proposed Project in the Cities of Riverside, Norco, and Jurupa Valley and in unincorporated areas of Riverside County. The Proposed Project would involve the construction and operation of new double-circuit 230 kilovolt ("kV") transmission lines ("T/Ls") and new 69 kV subtransmission lines. It also would include a new SCE 230 kV electrical substation (Wildlife Substation) and a new RPU 230/69 kV electrical substation (Wilderness Substation) to be constructed adjacent to one another east of the Riverside Regional Water Quality Control Plant, as well as a number of 69 kV subtransmission circuits and other improvements. SCE would construct, maintain and operate the 230 kV T/Ls and the Wildlife Substation, while Riverside and RPU would construct, maintain and operate the Wilderness Substation and the 69 kV subtransmission lines. The Proposed Project would reduce RPU's dependence on the SCE's Vista Substation, which currently is the sole external source of electricity to RPU. The Proposed Project would provide for an increase in reliability and safety by providing another source path to RPU and sufficient electric capacity to meet future load growth and system demand in the City of Riverside.

For the purpose of EMF analysis, this FMP focuses only on major electrical components of the SCE work scope of the Proposed Project, which involves design and construction of the Wildlife Substation and interconnecting it to the SCE Mira Loma-Vista #1 230 kV T/L, thereby forming the Mira Loma-Wildlife 230 kV T/L, and the Vista-Wildlife 230 kV T/L. Substation apparatus upgrades, distribution system modifications, telecommunication lines, construction details, the proposed Wilderness Substation and the 69 kV portion of that the Proposed Project (for which RPU is responsible) are not evaluated in this FMP.

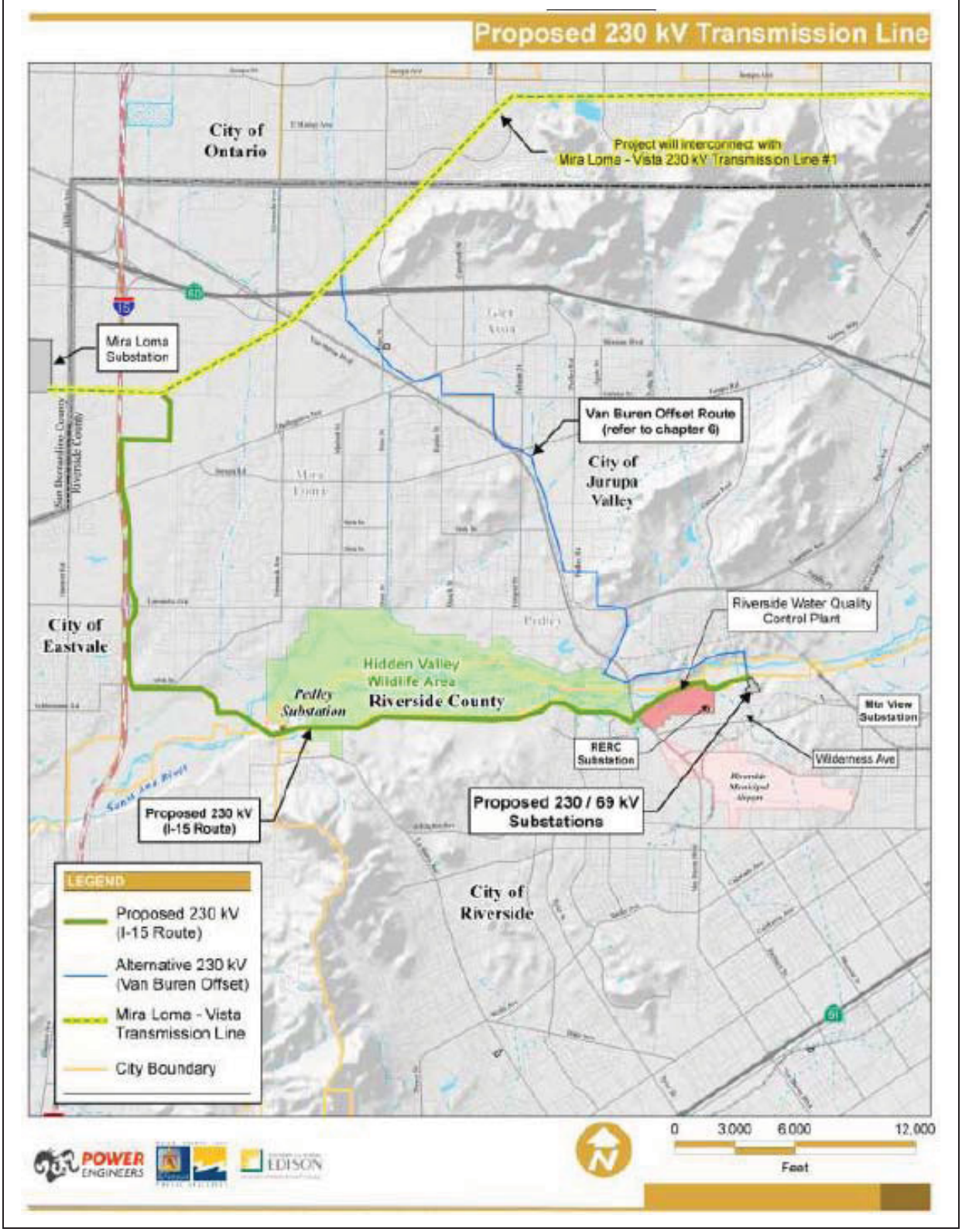
230 kV Transmission Lines

The Proposed Project would add a new source of transmission for bulk power supply to RPU by "looping" SCE's Mira Loma-Vista #1 230 kV T/L in to a new 230 kV Wildlife Substation which would be located near the northeast corner of Wilderness Avenue and Ed Perkic Street within the City of Riverside. Under the Proposed Project, approximately ten miles of new double-circuit 230 kV T/L would be constructed that would "loop" the existing Mira Loma-Vista #1 230 kV T/L into the proposed Wildlife Substation. The "loop" would be created by connecting each of the new circuits into the existing Mira Loma-Vista #1 230 kV T/L. The interconnection would occur at approximately the point where the Mira Loma-Vista #1 230 kV T/L crosses Wineville Avenue, east of Interstate 15 ("I-15"). From here, the new double-circuit lines would run south along Wineville Avenue and then west to follow Landon Drive towards the I-15. Here the line would turn to roughly follow I-15 south just to the east of the I-15 Caltrans right-of-way ("ROW"), crossing Bellegrave Avenue, Limonite Avenue (west of the Vernola Marketplace), and 68th Street before turning east on the south side of 68th Street and proceeding toward the Goose Creek Golf Club. At the Goose Creek Golf Club, the line would cross the course to a larger river-crossing structure that would be located within a lawned area east of the teeing ground for the golf course's

fourth hole. From here, an approximate 2,025-foot span would completely cross the Santa Ana River and riparian corridor, ending on a hill to the southwest of SCE's Pedley Substation. The line would then continue east along bluffs parallel to the Santa Ana River, mostly within the City of Riverside. In some locations here, the line would cross into the Hidden Valley Wildlife Area. Eventually the line would cross over Van Buren Boulevard, and then enter the property of the City of Riverside Water Quality Control Plant, following the northern perimeter of the plant before reaching the proposed Wildlife Substation on the south side of the Santa Ana River, east of Wilderness Avenue, as shown in Figure 1.

The project description is based on planning level assumptions. Exact details would be determined following completion of final engineering, identification of field conditions, availability of labor, material, equipment, and compliance with applicable environmental and permitting requirements.

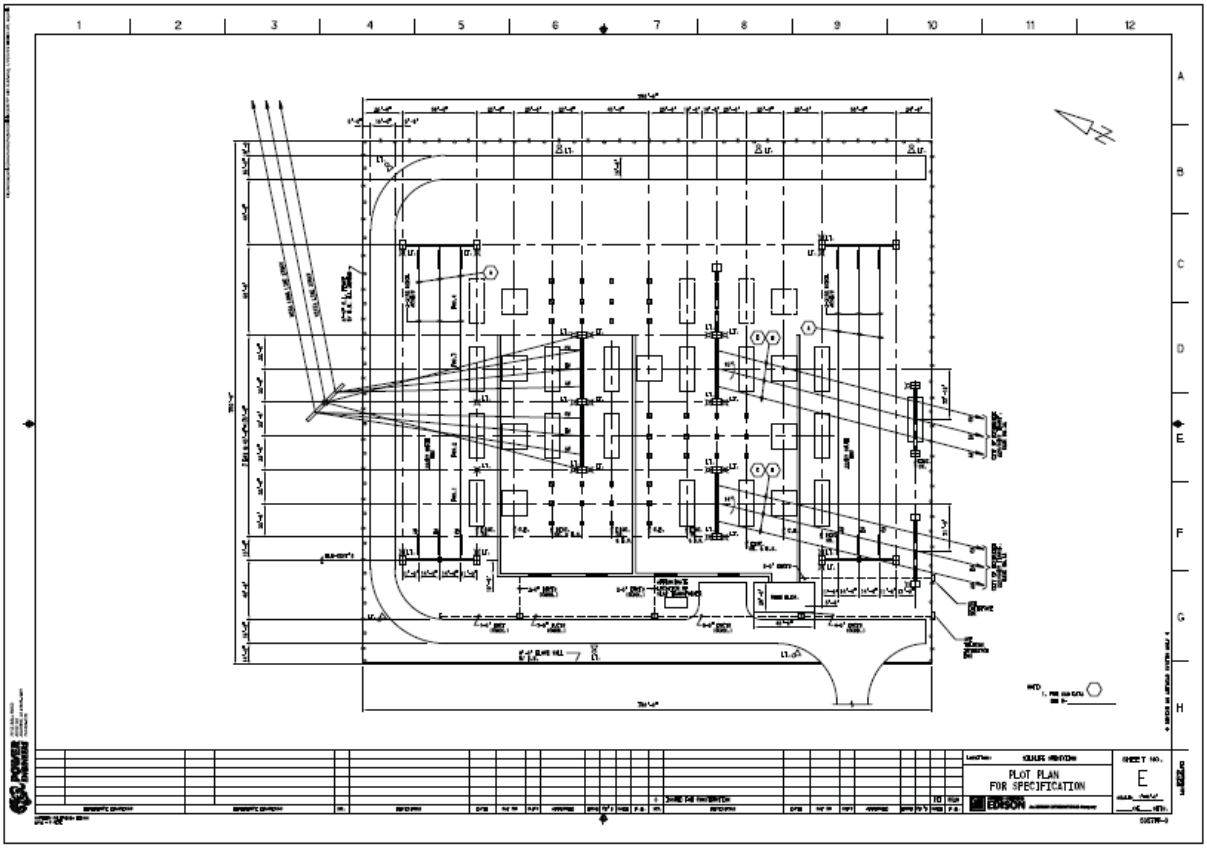
Figure 1. RTRP 230 kV Transmission Line Route



Proposed Wildlife 230 kV Substation

The proposed SCE 230 kV Wildlife Substation would be constructed on three acres of land currently owned by RPU and located near the northeast corner of Wilderness Avenue and Ed Perkic Street. This area is within the Riverside City limits. If the Proposed Project is approved, SCE would purchase property from RPU to accommodate the new Wildlife Substation. The proposed substation would connect to the SCE system via the proposed double-circuit 230 kV T/Ls described above, and would also connect into RPU's proposed adjacent proposed Wilderness 230/69 kV Substation. Figure 2 shows the preliminary layout of the proposed Wildlife Substation.

Figure 2. Preliminary Layout of the Proposed Wildlife 230 kV Substation



V. EVALUATION OF "NO-COST AND LOW-COST" MAGNETIC FIELD REDUCTION DESIGN OPTIONS

Please note that the following magnetic field models and the calculated results of magnetic field levels are intended only for purposes of identifying the relative differences in magnetic field levels among various T/L and subtransmission line design alternatives under a specific set of modeling assumptions (see §VII-Appendix A for more detailed information about the calculation assumptions and loading conditions) and determining whether particular design alternatives can achieve magnetic field level reductions of 15 percent or more. The calculated results are not intended to be predictors of the actual magnetic field levels at any given time or at any specific location when the Proposed Project is constructed.

For the purpose of evaluating "no-cost and low-cost" magnetic field reduction design options, the evaluation of magnetic fields associated with SCE's portion of work of the Proposed Project is divided into two parts:

- Part 1: Proposed 230 kV Transmission Lines
- Part 2: Proposed 230 kV Substation

Part 1: Proposed 230 kV Transmission Lines

The following magnetic field reduction methods are applicable for overhead 230 kV T/L designs:

- Selecting 230 kV T/L routes that would have the least impact to populated areas
- Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction
- Arrange conductors of the proposed T/Ls for magnetic field reduction ("Phasing")
- Raising Conductor Ground Clearance ("CGC") to increase distance from populated areas

There are mainly two types of structures for the proposed 230 kV T/Ls: LST and TSP. There is only one section which the proposed T/Ls would run parallel to another circuit, which is SCE's Mira Loma-Corona-Pedley 66 kV Subtransmission Line. Three EMF computer models are used to compare various design options.

Model 1 – Lattice Steel Tower

The proposed LST structures in the Proposed Project are dead-end structures as shown in Figure 3. For EMF analysis, calculated magnetic field levels were evaluated at the edges of the approximately 100-foot wide ROW or easement.

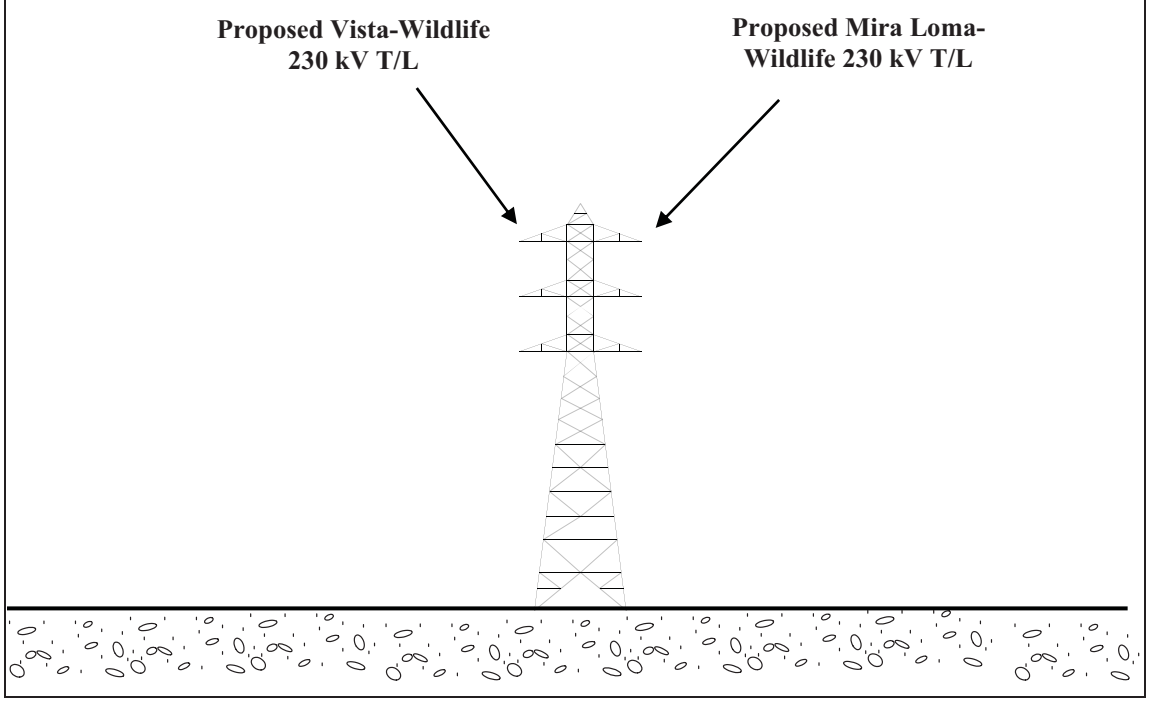
"No-Cost" Field Reduction Measures: The proposed design includes the following "no-cost" field reduction measures:

1. Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction
2. Arrange conductors of T/Ls for magnetic field reduction ("Phasing")

"Low-Cost" Field Reduction Option:

1. The preliminary engineering analysis was based on minimum structure heights of 113 feet above ground, with a minimum ground clearance of the lowest conductor at 32 feet above ground. The "low-cost" option of raising the CGC by an additional 10 feet from the preliminary design is considered for locations adjacent to populated areas.

Figure 3. Proposed 230 kV LST Structures Design - Model 1[34]



Magnetic Field Calculations: Figure 4 and Table 2 show the calculated magnetic field levels for the proposed design with and without field reduction measures.

[34] Figure is not to scale.

Figure 4. Calculated Magnetic Field Levels[35] for Model 1 Proposed 230 kV T/L Portion with LST Structures[36]

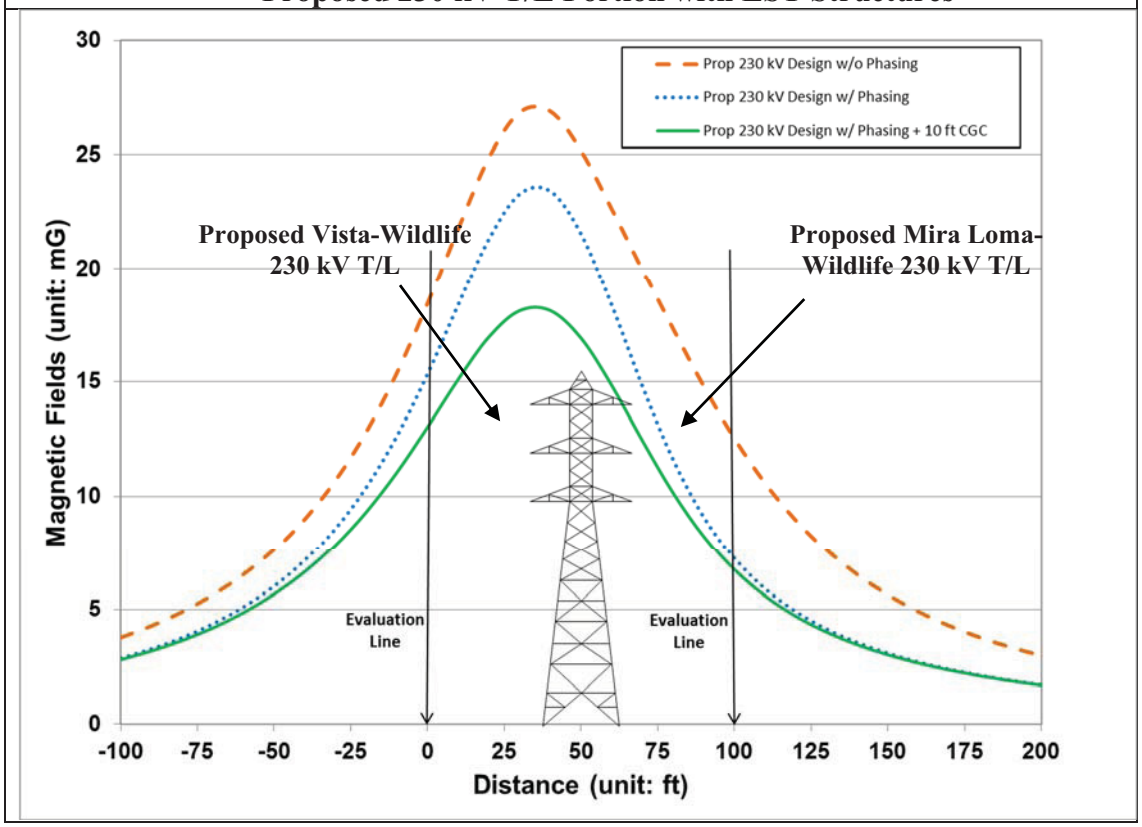


Table 2. Calculated Magnetic Field Levels[37] for Model 1

Design Options	Vista-Wildlife Side of ROW (mG)	% Reduction[38]	ML-Wildlife Side of ROW (mG)	% Reduction
Proposed w/o Phasing	18.6	-	12.6	-
Proposed w/ Phasing	15.5	16.7	7.3	42.1
Proposed w/ Phasing and +10 ft CGC	13.0	16.1	6.7	8.2

35 This figure shows calculated magnetic field levels for design comparison only and is not meant to predict actual magnetic field levels.

36 Structure is not to scale

37 This table lists calculated magnetic field levels for design comparison only and is not meant to predict actual magnetic field levels.

38 "% Reduction" represents the percentage of reduction achieved with the implementation of the referenced "no-cost and/or low-cost" magnetic field reduction measures as compared to the proposed design in the previous row in this table.

"Low-Cost" recommendations for Model 1: *The "low-cost" measure of raising the CGC is recommended near populated areas since it would achieve at least 15% of magnetic field reduction on one side of the T/L route.*

Model 2 – Tubular Steel Pole

The proposed TSP structures in the Proposed Project are tangent structures as shown in Figure 5. For EMF analysis, calculated magnetic field levels were evaluated at the edges of the approximately 100-foot wide ROW or easement.

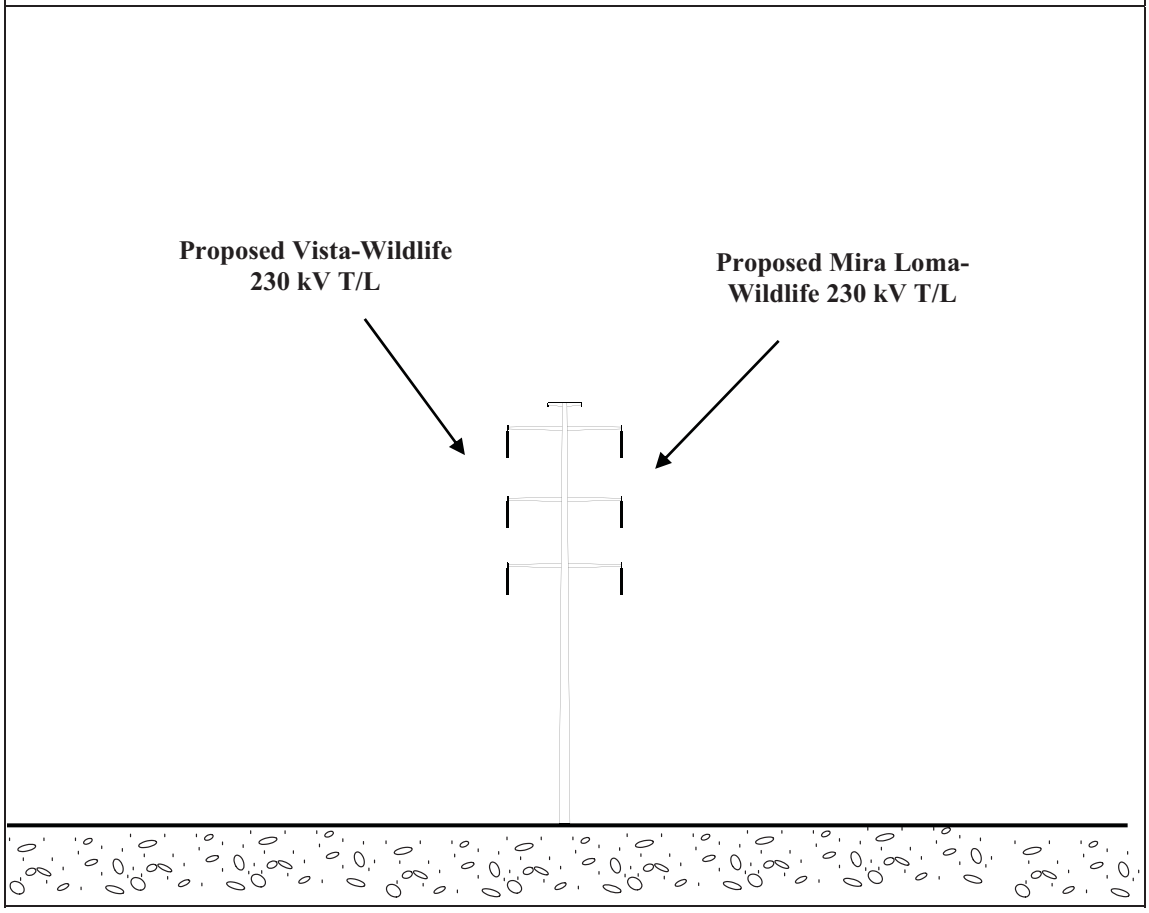
"No-Cost" Field Reduction Measures: The proposed design includes the following "no-cost" field reduction measure:

1. Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction
2. Arrange conductors of T/Ls for magnetic field reduction ("Phasing")

"Low-Cost" Field Reduction Options:

1. The preliminary engineering analysis was based on minimum structure heights of 105 feet above ground with a minimum ground clearance of the lowest conductor at 32 feet above ground. The "low-cost" option of raising the CGC by an additional 10 feet from the preliminary design is considered for locations adjacent to populated areas.

Figure 5. Proposed 230 kV TSP Structures Design - Model 2[39]



Magnetic Field Calculations: Figure 6 and Table 3 show the calculated magnetic field levels for the proposed design with and without field reduction measures.

[39] Figure is not to scale.

Figure 6. Calculated Magnetic Field Levels[40] for Model 2 Proposed 230 kV T/L Portion with TSP Structures[41]

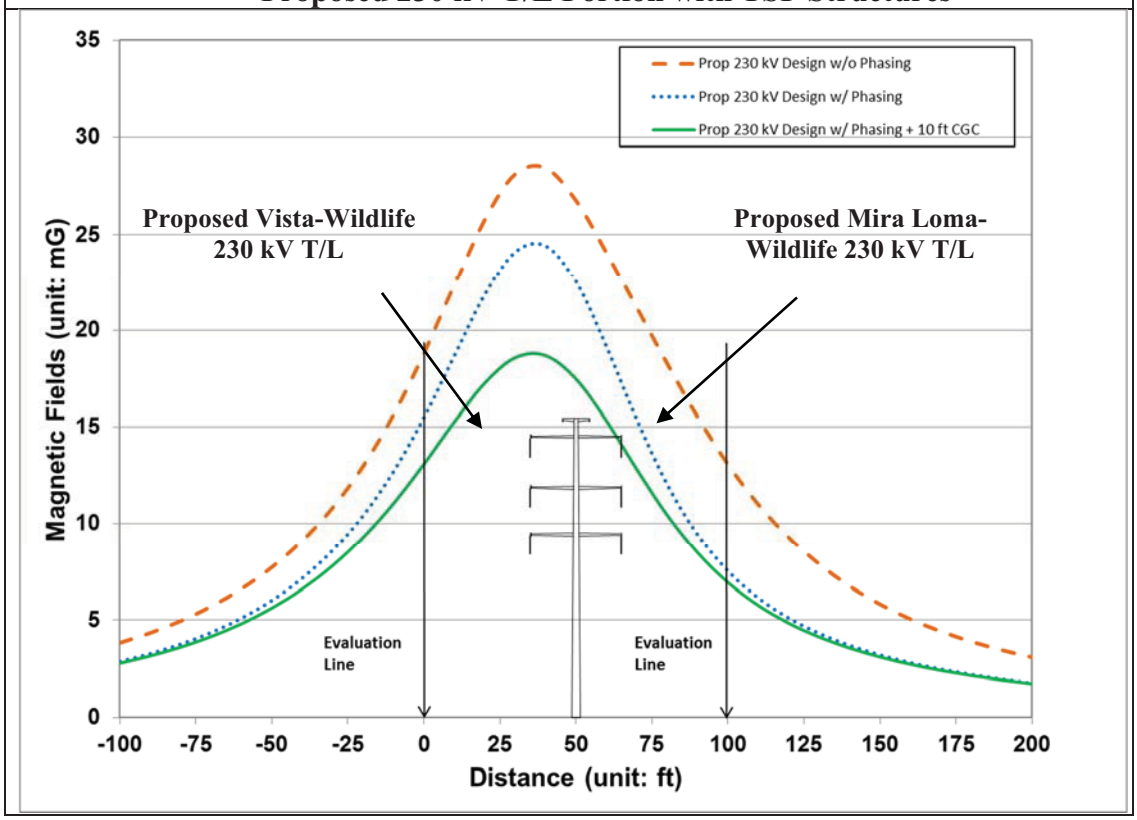


Table 3. Calculated Magnetic Field Levels[42] for Model 2

Design Options	Vista-Wildlife Side of ROW (mG)	% Reduction[43]	ML-Wildlife Side of ROW (mG)	% Reduction
Proposed w/o Phasing	18.8	-	13.0	-
Proposed w/ Phasing	15.5	17.6	7.5	42.3
Proposed w/ Phasing and +10 ft CGC	13.1	15.5	6.9	8.0

"Low-Cost" recommendations for Model 2: *The "low-cost" measure of raising the CGC is recommended near populated areas.*

---

40 This figure shows calculated magnetic field levels for design comparison only and is not meant to predict actual magnetic field levels.

41 Structure is not to scale

42 This table lists calculated magnetic field levels for design comparison only and is not meant to predict actual magnetic field levels.

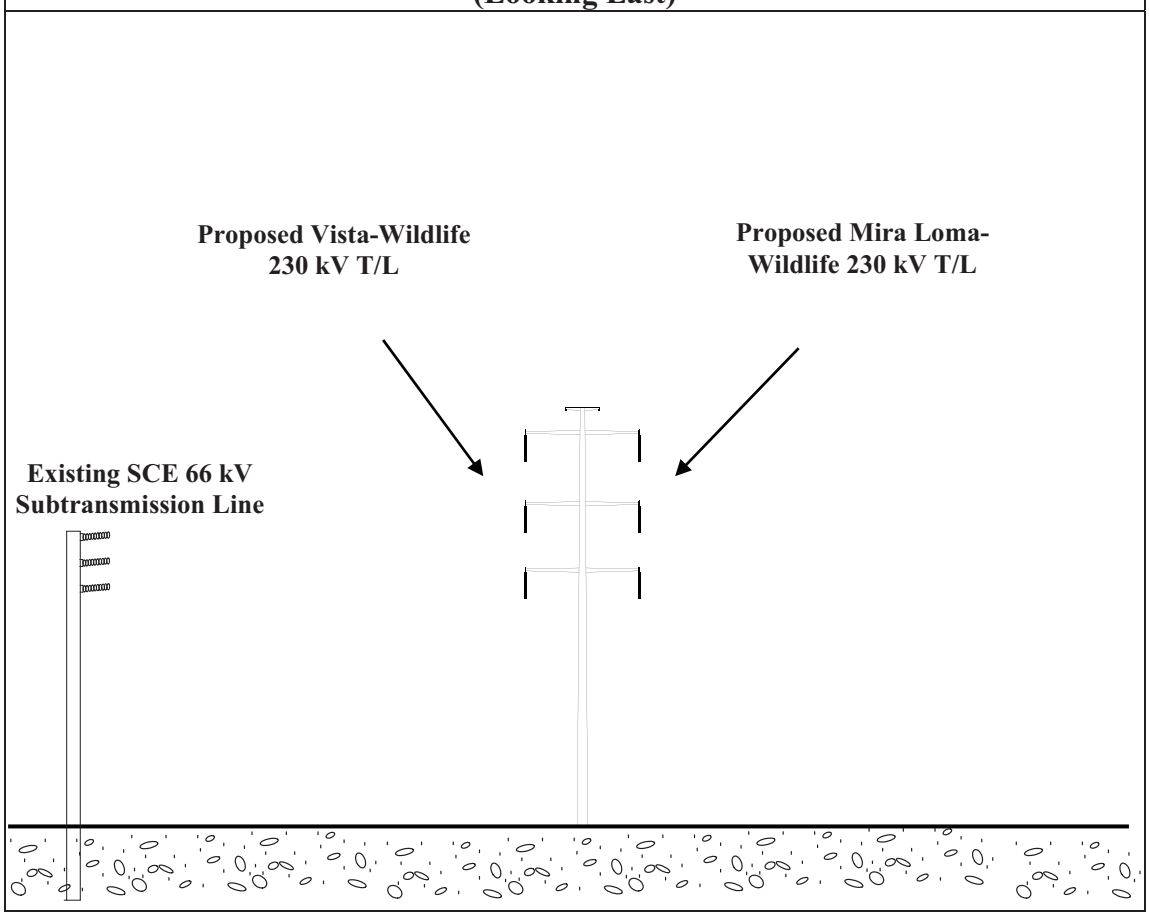
43 "% Reduction" represents the percentage of reduction achieved with the implementation of the referenced "no-cost and/or low-cost" magnetic field reduction measures as compared to the proposed design in the previous row in this table.

Model 3 – Section Near the Louis Vandermolen Fundamental Elementary School

There is a section in the 230 kV T/L route that would parallel an existing SCE 66 kV subtransmission line along 68th Street. The proposed TSP structures in this section are mostly tangent structures located on the south side of the 66 kV subtransmission line as shown in Figure 7 (the existing 66 kV line is on the north side of the street). The Louis Vandermolen Fundamental Elementary School, as well as residential homes, are on the north side of the 66 kV subtransmission line. For EMF analysis, calculated magnetic field levels were evaluated at the edges of the approximately 100-foot wide ROW or easement. An assessment of the calculated magnetic field level on the north side of the 66 kV subtransmission line was also performed.

Figure 7. Proposed 230 kV T/L Near Louis Vandermolen Fundamental Elementary School - Model 3[44]

(Looking East)



[44] Figure is not to scale.

"No-Cost" Field Reduction Measure: The proposed design includes the following "no-cost" field reduction measure:

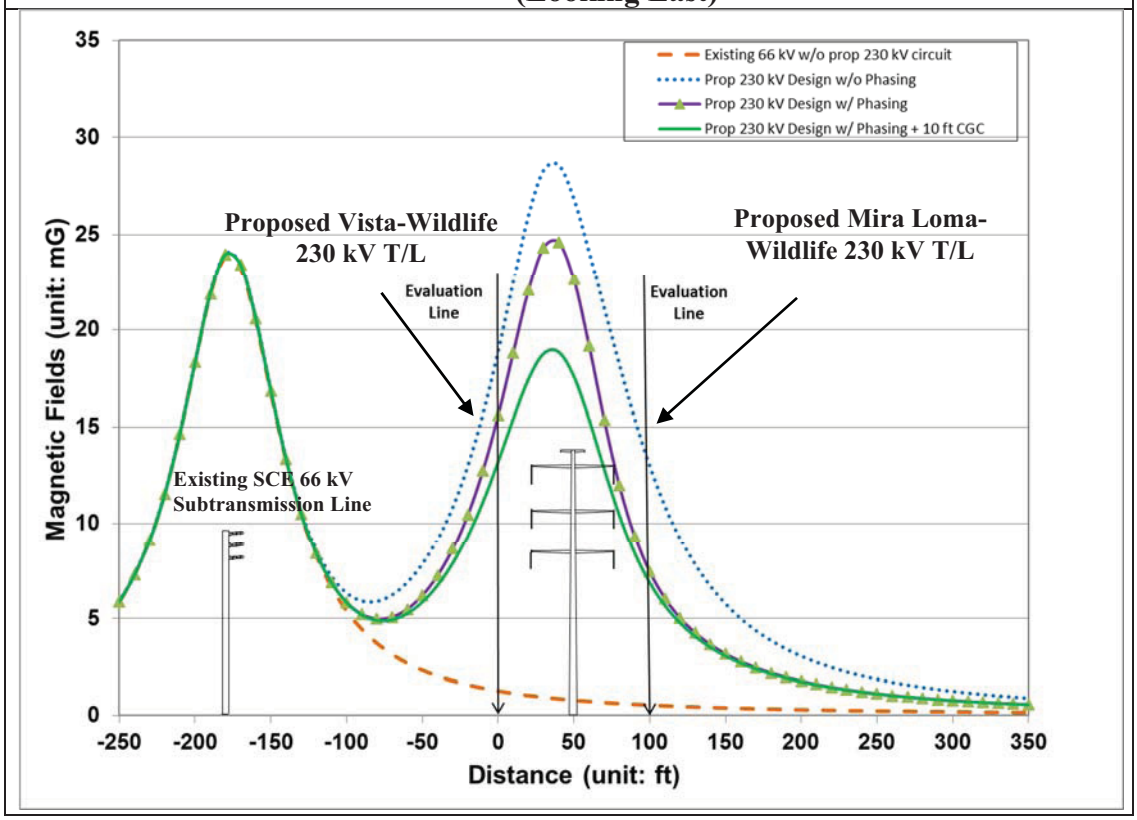
1. Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction
2. Arrange conductors of T/Ls for magnetic field reduction ("Phasing")

"Low-Cost" Field Reduction Options:

1. The initial analysis was based on minimum structure heights of 105 feet above ground with a minimum ground clearance of the lowest conductor at 32 feet above ground. The "low-cost" option of raising the CGC by an additional 10 feet from the preliminary design is considered for this section.

Magnetic Field Calculations: Figure 8 and Table 4 show the calculated magnetic field levels for the proposed design comparing existing and proposed design with and without field reduction measures.

Figure 8. Calculated Magnetic Field Levels[45] for Model 3 Near Louis Vandermolen Fundamental Elementary School on 68th Street[46] (Looking East)



45 This figure shows calculated magnetic field levels for design comparison only and is not meant to predict actual magnetic field levels.

46 Structures are not to scale

Table 4. Calculated Magnetic Field Levels[47] for Model 3				
Design Options	Vista-Wildlife Side of ROW (mG)	% Reduction[48]	ML-Wildlife Side of ROW (mG)	% Reduction
Existing 66 kV w/o Proposed Project	1.3		0.5	
Proposed w/o Phasing	18.9	Increase	13.0	Increase
Proposed w/ Phasing	15.6	17.5	7.4	43.1
Proposed w/ Phasing and +10 ft CGC	13.2	15.4	6.9	6.8

"Low-Cost" recommendations for Model 3: *Although increasing the CGC would result in more than 15% of field reduction on the north side of the proposed T/L, it would have a minimal effect on the north side of the 66 kV subtransmission line where the school and homes are. Therefore, the "low-cost" measure of raising the CGC is NOT recommended for this section.*

Part 2: Proposed 230 kV Substation

Generally, magnetic field values along the substation perimeter are low compared to the substation interior because of the distance from the perimeter to the energized equipment. Normally, the highest magnetic field values around the perimeter of a substation result from overhead power lines and underground duct banks entering and leaving the substation, and are not caused by substation equipment. Therefore, the magnetic field reduction measures generally applicable to a substation project are as follows:

- Site selection for a new substation;
- Setback of substation structures and major substation equipment (such as bus, transformers, and underground cable duct banks, etc.) from perimeter;
- Lines entering and exiting the substation.

The Substation Checklist, as shown on Table 5, is used for evaluating the "no-cost and low-cost" measures considered for the proposed Wildlife Substation, the measures adopted, and reasons that certain measures were not adopted.

47 This table lists calculated magnetic field levels for design comparison only and is not meant to predict actual magnetic field levels.

48 "% Reduction" represents the percentage of reduction achieved with the implementation of the referenced "no-cost and/or low-cost" magnetic field reduction measures as compared to the proposed design in the previous row in this table.

Table 5. Substation Checklist for Examining "No-Cost and Low-Cost" Magnetic Field Reduction Measures			
No.	**"No-Cost and Low-Cost" Magnetic Field Reduction Measures Evaluated for a Substation Project**	**Measures Adopted? (Yes/No)**	**Reason(s) if not Adopted**
1	Are transformers and air-core reactors > 50 feet from the substation property line?	N/A[49]	
2	Are switch-racks, capacitor banks & bus > 40 feet from substation property line?	No	Not adjacent to populated area[50]
3	Are distribution underground cable duct banks greater than 12 feet from side of the substation property line?	Yes	

This document includes only "no-cost and low-cost" magnetic field reduction measures for the Proposed T/L route and Wildlife Substation based on preliminary engineering design. The City of Riverside's Final Environmental Impact Report (FEIR) contains various alternative T/L routes. The proposed "no-cost and low-cost" magnetic field reduction measures for the Proposed Project can be similarly applied to the alternative line routes. If the alternative route is chosen for this project, a supplemental FMP would be prepared based on the final engineering design.

[49] "N/A" means "Not Applicable." There are no transformers or reactors in the proposed Wildlife Substation.

[50] North and South sides of the Proposed Substation will not be adjacent to populated areas

VI. FINAL RECOMMENDATIONS FOR IMPLEMENTING "NO-COST AND LOW-COST" MAGNETIC FIELD REDUCTION DESIGN OPTIONS

In accordance with the EMF Design Guidelines filed with the CPUC in compliance with CPUC Decisions 93-11-013 and 06-01-042, SCE would implement the following "no-cost and low-cost" magnetic field reduction design options for the Proposed Project.

Part 1: Proposed 230 kV Transmission Line Work

Model 1 – Lattice Steel Tower

- Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction as a "no-cost" measure

- Arrange conductors of the proposed T/Ls for magnetic field reduction as a "no-cost" measure
    - Vista-Wildlife 230 kV: **B-A-C**: top-to-bottom
    - Mira Loma-Wildlife 230 kV: **C-A-B**: top-to-bottom; **or equivalent opposite phasing combination**

- Raise the lowest conductor ground clearance from the SCE design standard by 10 feet near residential, commercial/industrial, or recreational areas as a "low-cost" option where final engineering deems feasible

Model 2 – Tubular Steel Pole

- Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction as a "no-cost" measure

- Arrange conductors of the proposed T/Ls for magnetic field reduction as a "no-cost" measure
    - Vista-Wildlife 230 kV: **B-A-C**: top-to-bottom
    - Mira Loma-Wildlife 230 kV: **C-A-B**: top-to-bottom; **or equivalent opposite phasing combination**

- Raise the lowest conductor ground clearance from the SCE design standard by 10 feet near residential, commercial/industrial, or recreational areas as a "low-cost" option where final engineering deems feasible

Model 3 – Section Near the Louis Vandermolen Fundamental Elementary School

- Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction as a "no-cost" measure

- Arrange conductors of the proposed T/Ls for magnetic field reduction as a "no-cost" measure
    - Vista-Wildlife 230 kV: **B-A-C**: top-to-bottom
    - Mira Loma-Wildlife 230 kV: **C-A-B**: top-to-bottom; **or equivalent opposite phasing combination**

- The "low-cost" field reduction measure of raising the CGC is **Not** recommended due to minimal effect near populated areas in this section

Part 2: Proposed 230 kV Substation

- Place major substation electric equipment away from the substation property lines, as shown on Table 5.

SCE's plan for applying the above "no-cost and low-cost" magnetic field reduction design options uniformly for the Proposed Project is consistent with the CPUC's EMF Decisions No. 93-11-013 and No. 06-01-042. Furthermore, the recommendations above meet the CPUC approved EMF Design Guidelines, as well as all applicable national and state safety standards for new electrical facilities. If necessary, a supplemental FMP would be prepared based on the final engineering design.

VII. APPENDIX A: TWO-DIMENSIONAL MODEL ASSUMPTIONS AND YEAR 2020 FORECASTED LOADING CONDITIONS

Magnetic Field Model Assumptions:

SCE uses a computer program titled "MFields"[51] to model the magnetic field characteristics of various transmission designs options. All magnetic field models and the calculated results of magnetic field levels presented in this document are intended only for purposes of identifying the relative differences in magnetic field levels among various T/Ls and subtransmission line design alternatives under a specific set of modeling assumptions and determining whether particular design alternatives can achieve magnetic field level reductions of 15 percent or more. The calculated results are not intended to be predictors of the actual magnetic field levels at any given time or at any specific location if and when the Proposed Project is constructed.

Typical two-dimensional magnetic field modeling assumptions include:

- All transmission and subtransmission lines were modeled using forecasted peak loads (see Tables 6 and 7).
- All conductors were assumed to be straight and infinitely long.
- Average conductor heights account for line sag used in the calculation for the transmission and subtransmission line designs.
- Magnetic field strength was calculated at a height of three feet above ground.
- Resultant magnetic fields values were presented in this FMP.
- All line currents within the same circuit were assumed to be balanced. (i.e. neutral or ground currents are not considered)
- Terrain was assumed to be flat.
- Project dominant power flow directions in the year of operational date of the Proposed Project were used.

51 SCE, MFields for Excel, Version 2.0, 2007.

Table 6. Year 2020 Forecasted Peak Loading Conditions[1] for the Proposed Project (After Project Completion)		
Line Name	**Current (Amps)**	**Power Flow Direction**
Vista-Wildlife 230 kV T/L	347	Vista to Wildlife
Mira Loma-Wildlife 230 kV T/L	68	Mira Loma to Wildlife
Mira Loma-Corona-Pedley 66 kV Subtransmission Line	731	Mira Loma to Corona and Pedley

Table 7. Year 2020 Forecasted Peak Loading Conditions[1] without the Proposed Project		
Line Name	**Current (Amps)**	**Power Flow Direction**
Mira Loma-Vista #1 230 kV T/L	65	Vista to Mira Loma

Notes:

1. Forecasted loading data is based upon scenarios representing peak load forecasts for 2020 under normal conditions. The forecasting data is subject to change depending upon availability of generation, load increases, changes in load demand, and by many other factors.

Appendix C

RTRP NOTICE OF APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

NOTICE OF APPLICATION FOR A
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

RIVERSIDE TRANSMISSION RELIABILITY PROJECT
Filing Date: April 15, 2015

Proposed Project: Southern California Edison Company (SCE) has filed an application with the California Public Utilities Commission (CPUC) to construct SCE's portion of the Riverside Transmission Reliability Project (hereinafter, "Proposed Project"). The purpose of the Proposed Project is to provide Riverside Public Utilities (RPU) and its customers with adequate transmission capacity to serve existing and projected load, to provide for long-term system capacity for load growth, and to provide needed system reliability.

Project Description: The Proposed Project is located in Riverside County in the cities of Riverside, Jurupa Valley, Norco and in portions of unincorporated Riverside County. The Proposed Project consists of the following major elements (please also refer to the enclosed map below):

Transmission Lines

- Construct approximately ten miles of new double circuit 220kV transmission lines between SCE's existing 220kV tower, located at the northwest corner of Cantu Galleano Ranch Road and Wineville Avenue in City of Jurupa Valley, and SCE's future 220kV Wildlife Substation, located on Wilderness Avenue in the City of Riverside;
- Modify the aforementioned tower of the Mira Loma-Vista No.1 220kV transmission line to connect the new double circuit 220 kV transmission line.

Substation

- Construct new 220kV Wildlife Substation;
- Construct one MEER building and switching station;
- Construct 220kV switchrack;
- Loop-in Mira Loma – Vista No.1 line into Wildlife Substation;
- Upgrade relay protection at Mira Loma and Vista substations.

Telecommunications

- Install new fiber optic between SCE Pedley and future Wildlife Substations;
- Install necessary facilities to utilize RPU's fiber optic network between SCE Vista and future Wildlife Substations.

Distribution Lines

- Relocate existing distribution lines at approximately eight locations where crossing new, proposed 220kV lines

Construction is scheduled to begin in October 2017, and the Proposed Project is planned to be operational by February 2019.

Electric and Magnetic Fields (EMF) Compliance: The CPUC requires utilities to employ "no-cost" and "low-cost" measures to reduce public exposure to magnetic fields. In accordance with "EMF Design Guidelines" (Decisions 93-11-013 and 06-01-042.), the Proposed Project would implement a combination of the following measures:

1. Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction;
2. Arrange conductors of the proposed Transmission Line (T/L) for magnetic field reduction;
3. Raise the lowest conductor ground clearance; and
4. Place distribution underground cable duct banks greater than 12 feet from side of the Proposed Substation property line.

Environmental Review: The City of Riverside certified the Final Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) for the Riverside Transmission Reliability Project (RTRP) on or about February 5, 2013. Prior to certifying the Final EIR, the City of Riverside prepared a Draft EIR and issued it for public comment on or about August 1, 2011. For more information on the Proposed Project, including its Final Environmental Impact Report, please visit the City of Riverside's project website at www.riversideca.gov/utilities/rtrp.asp.

Public Participation:
Persons wishing to present testimony in evidentiary hearings and/or legal briefing on all other issues, including project need and cost, EMF compliance, require party status. Persons may obtain party status by filing a protest to the application by **May 15, 2014**, in compliance with Rule 2.6, or by making a motion for party status at any time in compliance with Rule 1.4, of the CPUC's Rules of Practice and Procedure (posted at www.cpuc.ca.gov).

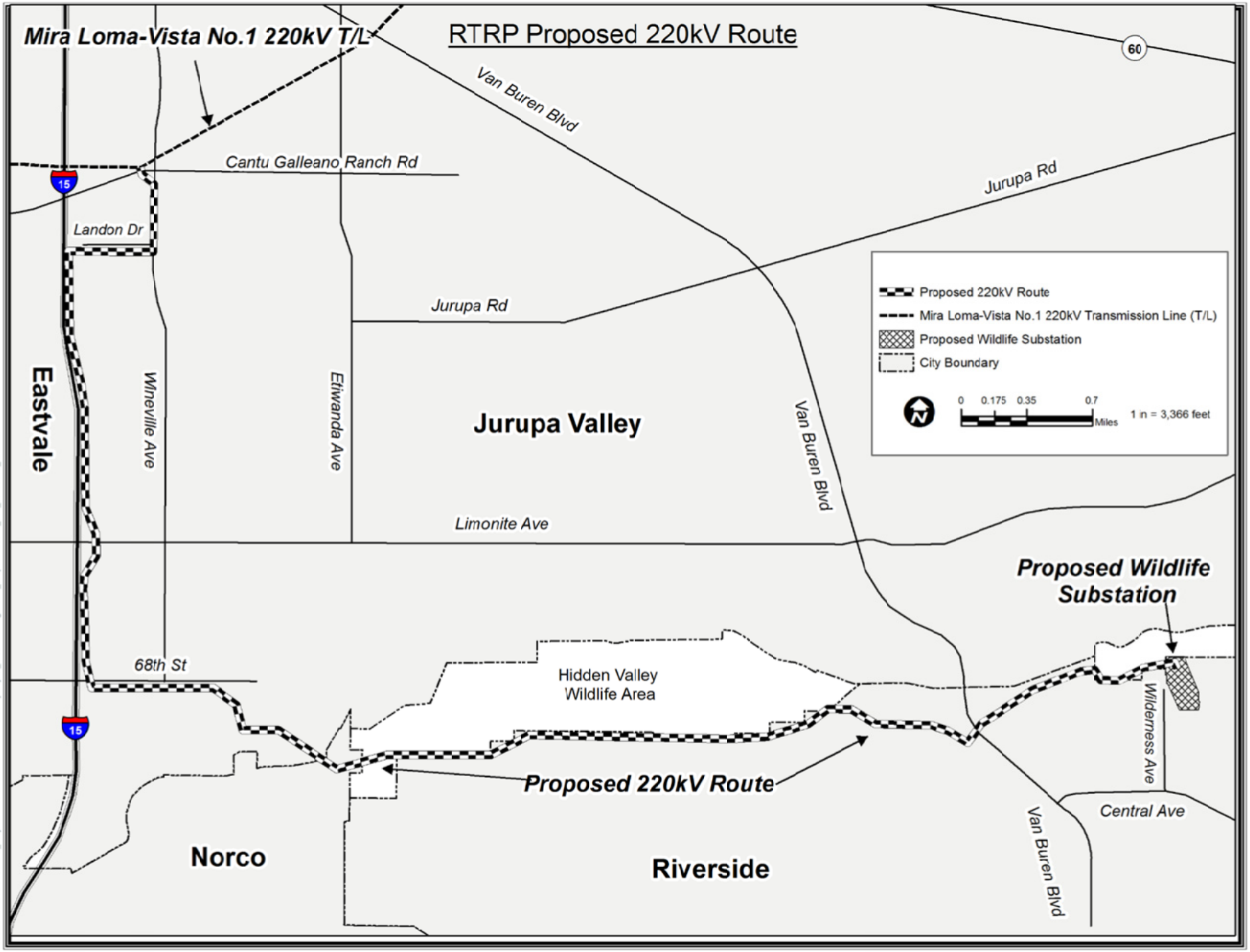
The public may communicate their views regarding the application by writing to the CPUC at 505 Van Ness Avenue, San Francisco, CA 94102, or by emailing the Public Advisor at public.advisor@cpuc.ca.gov. In addition, the CPUC may, at its discretion, hold a public participation hearing in order to take oral public comment.

Document Subscription Service: The CPUC's free online subscription service sends subscribers an email notification when any document meeting their subscription criteria is published on the CPUC's website, such as documents filed in a CPUC proceeding (e.g., notices of hearings, rulings, briefs and decisions). To sign up to receive notification of documents filed in this proceeding (or other CPUC matters), visit www.cpuc.ca.gov/subscription.

Contacts: For assistance from the CPUC, please contact the Public Advisor in San Francisco at (415)703-2074 (public.advisor@cpuc.ca.gov) or toll free at (866) 849-8391.

To review a copy of SCE's application, or to request further information about the proposed project, please contact:

Ray Hicks (Region Manager)
SCE Local Public Affairs
26100 Menifee Rd
Menifee CA 92585
Phone: (951) 928-8238


RTRP Proposed 220kV Route
Mira Loma-Vista No.1 220kV T/L
Van Buren Blvd
Cantu Galleano Ranch Rd
Jurupa Rd
Landon Dr
Jurupa Rd
Eastvale
Wineville Ave
Etiwanda Ave
Jurupa Valley
Van Buren Blvd
Limonite Ave
Proposed Wildlife Substation
68th St
Hidden Valley Wildlife Area
Wilderness Ave
Proposed 220kV Route
Central Ave
Van Buren Blvd
Norco
Riverside
15
15
60
Proposed 220kV Route
Mira Loma-Vista No.1 220kV Transmission Line (T/L)
Proposed Wildlife Substation
City Boundary
0 0.175 0.35 0.7
Miles
1 in = 3,366 feet

LIST OF NEWSPAPERS
PUBLISHING THE NOTICE FOR A
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

Press Enterprise
1825 Chicago Ave, Suite 100
Riverside CA 92507

Riverside County Record News
PO Box 3187
Riverside CA 92519

Appendix D

CERTIFICATE OF SERVICE FOR RTRP NOTICE OF APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN	)
CALIFORNIA EDISON COMPANY (U 338-E)	)
for a Certificate of Public Convenience and	)
Necessity for the RTRP Transmission Project	)
	)

CERTIFICATE OF SERVICE

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of the **NOTICE OF APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE RTRP TRANSMISSION PROJECT** on all parties identified on the attached lists.

Service was effected by one or more means indicated below:

☒ Placing the copies in sealed envelopes and causing such envelopes to be delivered via USPS First Class Mail

Lists: RTRP 300-Foot List (attached hereto)

☒ Placing the copies on sealed envelopes and causing such envelopes to be delivered via USPS Certified Mail.

Lists: RTRP Interested Parties List (attached hereto)
RTRP Agency List (attached hereto)

Executed this **April 15, 2015,** at Rosemead, California.

/s/ Christopher A. Stephens

Christopher A. Stephens, Project Analyst
SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770

APN	MAILING ADDRESS	MAILING CITY	MAILING STATE	MAILING ZIP CODE	PROPERTY ADDRESS	PROPERTY CITY, STATE, ZIP
156-050-027	1317 N 1ST AVE	UPLAND	CA	91786	N/AVAIL	MIRA LOMA,CA,91752
160-040-034	PO BOX 28606	ATLANTA	GA	30358	11811 LANDON DR	MIRA LOMA,CA,91752
160-040-045	3403 10TH ST STE 610	RIVERSIDE	CA	92501	N/AVAIL	MIRA LOMA,CA,91752
160-020-030	18021 VON KARMAN AVE # 1170	IRVINE	CA	92612	12421 BELLEGRAVE AVE	MIRA LOMA,CA,91752
160-040-046	PO BOX 231	SAN BERNARDINO	CA	92402	N/AVAIL	MIRA LOMA,CA,91752
160-040-020	300 PASEO TESORO	WALNUT	CA	91789	12087 LANDON DR	MIRA LOMA,CA,91752
160-040-033	PO BOX 28606	ATLANTA	GA	30358	11911 LANDON DR	MIRA LOMA,CA,91752
160-040-030	60 STATE ST	BOSTON	MA	02109	11905 LANDON DR	MIRA LOMA,CA,91752
160-060-039	4800 WINEVILLE AVE	MIRA LOMA	CA	91752	4800 WINEVILLE AVE	MIRA LOMA,CA,91752
160-060-062	4800 WINEVILLE AVE	MIRA LOMA	CA	91752	4860 WINEVILLE AVE	MIRA LOMA,CA,91752
160-040-013	464 W 4TH ST	SAN BERNARDINO	CA	92401	N/AVAIL	MIRA LOMA,CA,91752
160-040-014	3424 PEACHTREE RD NE STE 1500	ATLANTA	GA	30326	N/AVAIL	MIRA LOMA,CA,91752
160-040-024	3424 PEACHTREE RD NE STE 1500	ATLANTA	GA	30326	N/AVAIL	MIRA LOMA,CA,91752
160-040-040	3424 PEACHTREE RD NE STE 1500	ATLANTA	GA	30326	N/AVAIL	MIRA LOMA,CA,91752
160-040-042	3424 PEACHTREE RD NE STE 1500	ATLANTA	GA	30326	N/AVAIL	MIRA LOMA,CA,91752
160-020-023	18021 VON KARMAN AVE # 1170	IRVINE	CA	92612	N/AVAIL	MIRA LOMA,CA,91752
160-040-039	PO BOX 217	UPLAND	CA	91785	12080 BELLEGRAVE AVE	MIRA LOMA,CA,91752
160-040-011	464 W 4TH ST	SAN BERNARDINO	CA	92401	N/AVAIL	MIRA LOMA,CA,91752
160-060-060	4999 HORSE CHESTNUT ST	JURUPA VALLEY	CA	91752	4860 WINEVILLE AVE	MIRA LOMA,CA,91752
160-050-029	464 W 4TH ST	SAN BERNARDINO	CA	92401	N/AVAIL	MIRA LOMA,CA,91752
160-050-031	PO BOX 1295	CORONA	CA	92878	N/AVAIL	MIRA LOMA,CA,91752
160-050-048	PO BOX 217	UPLAND	CA	91785	N/AVAIL	MIRA LOMA,CA,91752
160-050-026	464 W 4TH ST	SAN BERNARDINO	CA	92401	N/AVAIL	MIRA LOMA,CA,91752
160-050-032	PO BOX 800	ROSEMEAD	CA	91770	N/AVAIL	MIRA LOMA,CA,91752
160-050-027	PO BOX 217	UPLAND	CA	91785	N/AVAIL	MIRA LOMA,CA,91752
152-640-002	464 W 4TH ST	SAN BERNARDINO	CA	92401	N/AVAIL	N/AVAIL,CA,91752
160-050-023	PO BOX 1295	CORONA	CA	92878	N/AVAIL	MIRA LOMA,CA,91752
160-050-021	PO BOX 1295	CORONA	CA	92878	N/AVAIL	MIRA LOMA,CA,91752
160-050-022	464 W 4TH ST	SAN BERNARDINO	CA	92401	N/AVAIL	MIRA LOMA,CA,91752
152-630-008	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	N/AVAIL	MIRA LOMA,CA,91752
152-630-016	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	6301 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-017	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	6285 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-007	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	N/AVAIL	MIRA LOMA,CA,91752
152-630-005	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	N/AVAIL	MIRA LOMA,CA,91752
152-630-006	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	N/AVAIL	MIRA LOMA,CA,91752
152-630-002	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	6381 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-013	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	6365 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-014	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	6349 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-015	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	6317 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-004	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	N/AVAIL	MIRA LOMA,CA,91752
152-630-003	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	6365 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-001	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	6397 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-029	PO BOX 1111	NORTH WILKESBORO	NC	28659	6413 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-030	PO BOX 1111	NORTH WILKESBORO	NC	28659	6413 PATS RANCH RD	MIRA LOMA,CA,91752
152-630-028	PO BOX 1111	NORTH WILKESBORO	NC	28659	6413 PATS RANCH RD	MIRA LOMA,CA,91752
152-020-019	464 W 4TH ST	SAN BERNARDINO	CA	92401	N/AVAIL	MIRA LOMA,CA,91752
152-020-012	PO BOX 217	UPLAND	CA	91785	N/AVAIL	MIRA LOMA,CA,91752
152-020-021	1500 QUAIL ST STE 150	NEWPORT BEACH	CA	92660	N/AVAIL	MIRA LOMA,CA,91752
152-020-022	1500 QUAIL ST STE 150	NEWPORT BEACH	CA	92660	N/AVAIL	MIRA LOMA,CA,91752
152-640-003	PO BOX 217	UPLAND	CA	91785	N/AVAIL	N/AVAIL,CA,91752
152-630-027	425 CALIFORNIA ST # 11TH	SAN FRANCISCO	CA	94104	N/AVAIL	MIRA LOMA,CA,91752
152-020-009	464 W 4TH ST	SAN BERNARDINO	CA	92401	N/AVAIL	MIRA LOMA,CA,91752
152-020-003	16880 HENRY RD	ESCALON	CA	95320	11980 68TH ST	MIRA LOMA,CA,91752
152-020-005	16880 HENRY RD	ESCALON	CA	95320	N/AVAIL	MIRA LOMA,CA,91752
152-020-010	502 N DIVISION ST	CARSON CITY	NV	89703	N/AVAIL	MIRA LOMA,CA,91752
152-020-007	16880 HENRY RD	ESCALON	CA	95320	N/AVAIL	MIRA LOMA,CA,91752
152-610-008	12115 SELENITE ST	JURUPA VALLEY	CA	91752	12115 SELENITE ST	MIRA LOMA,CA,91752
152-610-014	4350 S MONACO ST # 400	DENVER	CO	80237	N/AVAIL	MIRA LOMA,CA,91752
152-610-006	12095 SELENITE ST	JURUPA VALLEY	CA	91752	12095 SELENITE ST	MIRA LOMA,CA,91752
152-610-007	12105 SELENITE ST	JURUPA VALLEY	CA	91752	12105 SELENITE ST	MIRA LOMA,CA,91752
152-610-005	12085 SELENITE ST	MIRA LOMA	CA	91752	12085 SELENITE ST	MIRA LOMA,CA,91752
152-610-003	12065 SELENITE ST	JURUPA VALLEY	CA	91752	12065 SELENITE ST	MIRA LOMA,CA,91752
152-610-004	12075 SELENITE ST	JURUPA VALLEY	CA	91752	12075 SELENITE ST	MIRA LOMA,CA,91752
152-610-002	12055 SELENITE ST	JURUPA VALLEY	CA	91752	12055 SELENITE ST	MIRA LOMA,CA,91752
152-610-001	12045 SELENITE ST	MIRA LOMA	CA	91752	12045 SELENITE ST	MIRA LOMA,CA,91752
152-020-008	16880 HENRY RD	ESCALON	CA	95320	N/AVAIL	MIRA LOMA,CA,91752
157-210-001	16880 HENRY RD	ESCALON	CA	95320	11612 68TH ST	MIRA LOMA,CA,91752
152-020-018	28213 CLARK AVE	NORCO	CA	92860	N/AVAIL	MIRA LOMA,CA,91752
157-182-001	5455 PEDLEY RD	JURUPA VALLEY	CA	92509	11776 HOLMES AVE	MIRA LOMA,CA,91752
157-182-002	11757 68TH ST	MIRA LOMA	CA	91752	11757 68TH ST	MIRA LOMA,CA,91752
157-190-006	16880 HENRY RD	ESCALON	CA	95320	11695 68TH ST	MIRA LOMA,CA,91752
157-190-007	16880 HENRY RD	ESCALON	CA	95320	N/AVAIL	MIRA LOMA,CA,91752

APN	MAILING ADDRESS	MAILING CITY	MAILING STATE	MAILING ZIP CODE	PROPERTY ADDRESS	PROPERTY CITY, STATE, ZIP
157-182-007	6783 FRANK AVE	MIRA LOMA	CA	91752	6783 FRANK AVE	MIRA LOMA,CA,91752
157-182-013	11731 68TH ST	MIRA LOMA	CA	91752	11731 68TH ST	MIRA LOMA,CA,91752
157-190-008	16880 HENRY RD	ESCALON	CA	95320	N/AVAIL	MIRA LOMA,CA,91752
157-190-009	16880 HENRY RD	ESCALON	CA	95320	N/AVAIL	MIRA LOMA,CA,91752
157-201-012	11571 68TH ST	MIRA LOMA	CA	91752	11571 68TH ST	MIRA LOMA,CA,91752
157-201-011	11583 68TH ST	MIRA LOMA	CA	91752	11583 68TH ST	MIRA LOMA,CA,91752
157-210-019	PO BOX 728	PERRIS	CA	92572	11418 68TH ST	MIRA LOMA,CA,91752
157-210-010	PO BOX 728	PERRIS	CA	92572	N/AVAIL	MIRA LOMA,CA,91752
009-607-981	11401 ARLINGTON AVE	RIVERSIDE	CA	92505	11401 ARLINGTON AVE	RIVERSIDE,CA,92505
157-210-017	PO BOX 728	PERRIS	CA	92572	11418 68TH ST	MIRA LOMA,CA,91752
153-020-015	PO BOX 1987	PERRIS	CA	92572	N/AVAIL	NORCO,CA,92860
157-210-015	PO BOX 800	ROSEMEAD	CA	91770	N/AVAIL	MIRA LOMA,CA,91752
157-210-012	PO BOX 728	PERRIS	CA	92572	N/AVAIL	MIRA LOMA,CA,91752
153-041-012	207 GRULLA CT	NORCO	CA	92860	207 GRULLA CT	NORCO,CA,92860
153-041-013	191 GRULLA CT	NORCO	CA	92860	191 GRULLA CT	NORCO,CA,92860
153-041-014	171 GRULLA CT	NORCO	CA	92860	171 GRULLA CT	NORCO,CA,92860
153-041-015	151 GRULLA CT	NORCO	CA	92860	151 GRULLA CT	NORCO,CA,92860
153-240-028	2555 3RD ST	SACRAMENTO	CA	95818	N/AVAIL	RIVERSIDE,CA,92505
153-030-011	2131 WALNUT GROVE AVE # 2ND	ROSEMEAD	CA	91770	N/AVAIL	N/AVAIL,CA,92860
153-030-010	2131 W FLOWER AVE	FULLERTON	CA	92833	N/AVAIL	N/AVAIL,CA,92860
153-030-009	2131 WALNUT GROVE AVE # 2ND	ROSEMEAD	CA	91770	N/AVAIL	N/AVAIL,CA,92860
153-041-016	PO BOX 577986	MODESTO	CA	95357	131 GRULLA CT	NORCO,CA,92860
153-041-017	29905 CAMINO CRISTAL	MENIFEE	CA	92584	121 GRULLA CT	NORCO,CA,92860
153-041-018	120 GRULLA CT	NORCO	CA	92860	120 GRULLA CT	NORCO,CA,92860
153-062-011	5282 VICEROY AVE	NORCO	CA	92860	5282 VICEROY AVE	NORCO,CA,92860
153-062-012	28271 MODJESKA CANYON RD	SILVERADO	CA	92676	5225 VICEROY AVE	NORCO,CA,92860
153-062-013	5205 VICEROY AVE	NORCO	CA	92860	5205 VICEROY AVE	NORCO,CA,92860
153-240-016	PO BOX 800	ROSEMEAD	CA	91770	N/AVAIL	RIVERSIDE,CA,92505
153-240-021	2131 WALNUT GROVE AVE # 2ND	ROSEMEAD	CA	91770	N/AVAIL	RIVERSIDE,CA,92505
153-240-033	PO BOX 800	ROSEMEAD	CA	91770	N/AVAIL	RIVERSIDE,CA,92505
153-240-034	15531 SANDUSKY LN	WESTMINSTER	CA	92683	N/AVAIL	RIVERSIDE,CA,92505
153-240-030	3133 MISSION INN AVE	RIVERSIDE	CA	92507	N/AVAIL	RIVERSIDE,CA,92505
153-240-032	3133 MISSION INN AVE	RIVERSIDE	CA	92507	N/AVAIL	RIVERSIDE,CA,92505
154-410-001	3133 MISSION INN AVE	RIVERSIDE	CA	92507	N/AVAIL	N/AVAIL,CA,00000
154-420-033	4924 BALBOA BLVD # 489	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92509
154-410-002	3133 MISSION INN AVE	RIVERSIDE	CA	92507	N/AVAIL	N/AVAIL,CA,00000
154-420-017	4924 BALBOA BLVD # 489	ENCINO	CA	91316	7114 GARRET LN	RIVERSIDE,CA,92509
154-420-016	4924 BALBOA BLVD # 489	ENCINO	CA	91316	7106 GARRET LN	RIVERSIDE,CA,92509
154-420-018	4924 BALBOA BLVD # 489	ENCINO	CA	91316	7113 GARRET LN	RIVERSIDE,CA,92509
154-420-019	4924 BALBOA BLVD # 489	ENCINO	CA	91316	7105 GARRET LN	RIVERSIDE,CA,92509
154-420-020	4924 BALBOA BLVD # 489	ENCINO	CA	91316	7097 GARRET LN	RIVERSIDE,CA,92509
154-420-021	4924 BALBOA BLVD # 489	ENCINO	CA	91316	7087 GARRET LN	RIVERSIDE,CA,92509
154-420-015	4924 BALBOA BLVD # 489	ENCINO	CA	91316	7098 GARRET LN	RIVERSIDE,CA,92509
154-420-022	4924 BALBOA BLVD # 489	ENCINO	CA	91316	7079 GARRET LN	RIVERSIDE,CA,92509
154-420-035	4924 BALBOA BLVD # 489	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92509
162-250-005	3133 MISSION INN AVE	RIVERSIDE	CA	92507	N/AVAIL	N/AVAIL,CA,92509
162-250-003	1416 NINTH ST	SACRAMENTO	CA	95831	N/AVAIL	N/AVAIL,CA,92509
162-250-004	3133 MISSION INN AVE	RIVERSIDE	CA	92507	N/AVAIL	N/AVAIL,CA,92509
163-290-003	1416 NINTH ST	SACRAMENTO	CA	95831	N/AVAIL	RIVERSIDE,CA,92503
163-290-006	1416 9TH ST	SACRAMENTO	CA	95814	N/AVAIL	RIVERSIDE,CA,92503
163-290-004	3900 MAIN ST	RIVERSIDE	CA	92522	N/AVAIL	RIVERSIDE,CA,92503
163-290-005	PO BOX 3617	RIVERSIDE	CA	92519	6901 TYLER ST	RIVERSIDE,CA,92503
155-441-021	7532 LA MADERA RD NE	ALBUQUERQUE	NM	87109	N/AVAIL	RIVERSIDE,CA,92503
155-441-002	7294 IDYLLWILD LN	RIVERSIDE	CA	92503	7294 IDYLLWILD LN	RIVERSIDE,CA,92503
155-441-003	7298 IDYLLWILD LN	RIVERSIDE	CA	92503	7298 IDYLLWILD LN	RIVERSIDE,CA,92503
155-441-006	7261 AULD ST	RIVERSIDE	CA	92503	7261 AULD ST	RIVERSIDE,CA,92503
155-441-007	7251 AULD ST	RIVERSIDE	CA	92503	7251 AULD ST	RIVERSIDE,CA,92503
155-441-008	7241 AULD ST	RIVERSIDE	CA	92503	7241 AULD ST	RIVERSIDE,CA,92503
155-441-004	7281 AULD ST	RIVERSIDE	CA	92503	7281 AULD ST	RIVERSIDE,CA,92503
155-441-005	7271 AULD ST	RIVERSIDE	CA	92503	7271 AULD ST	RIVERSIDE,CA,92503
155-442-017	7293 MACY CT	RIVERSIDE	CA	92503	7293 MACY CT	RIVERSIDE,CA,92503
155-441-001	7290 IDYLLWILD LN	RIVERSIDE	CA	92503	7290 IDYLLWILD LN	RIVERSIDE,CA,92503
155-421-017	7286 IDYLLWILD LN	RIVERSIDE	CA	92503	7286 IDYLLWILD LN	RIVERSIDE,CA,92503
155-421-014	7274 IDYLLWILD LN	RIVERSIDE	CA	92503	7274 IDYLLWILD LN	RIVERSIDE,CA,92503
155-421-015	7278 IDYLLWILD LN	RIVERSIDE	CA	92503	7278 IDYLLWILD LN	RIVERSIDE,CA,92503
155-421-016	7282 IDYLLWILD LN	RIVERSIDE	CA	92503	7282 IDYLLWILD LN	RIVERSIDE,CA,92503
155-442-025	7295 IDYLLWILD LN	RIVERSIDE	CA	92503	7295 IDYLLWILD LN	RIVERSIDE,CA,92503
155-422-011	7285 IDYLLWILD LN	RIVERSIDE	CA	92503	7285 IDYLLWILD LN	RIVERSIDE,CA,92503
155-422-012	7275 IDYLLWILD LN	RIVERSIDE	CA	92503	7275 IDYLLWILD LN	RIVERSIDE,CA,92503
155-422-013	3415 VISION DR	COLUMBUS	OH	43219	7265 IDYLLWILD LN	RIVERSIDE,CA,92503
163-290-008	1416 9TH ST	SACRAMENTO	CA	95814	N/AVAIL	RIVERSIDE,CA,92503
155-421-013	7270 IDYLLWILD LN	RIVERSIDE	CA	92503	7270 IDYLLWILD LN	RIVERSIDE,CA,92503

APN	MAILING ADDRESS	MAILING CITY	MAILING STATE	MAILING ZIP CODE	PROPERTY ADDRESS	PROPERTY CITY, STATE, ZIP
155-421-011	7262 IDYLLWILD LN	RIVERSIDE	CA	92503	7262 IDYLLWILD LN	RIVERSIDE,CA,92503
155-421-012	7266 IDYLLWILD LN	RIVERSIDE	CA	92503	7266 IDYLLWILD LN	RIVERSIDE,CA,92503
163-300-007	1416 9TH ST	SACRAMENTO	CA	95814	N/AVAIL	RIVERSIDE,CA,92509
154-020-085	4924 BALBOA BLVD # 489	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92505
154-410-003	4924 BALBOA BLVD # 489	ENCINO	CA	91316	N/AVAIL	N/AVAIL,CA,00000
154-020-078	4924 BALBOA BLVD # 489	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92505
154-020-079	4924 BALBOA BLVD # 489	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92505
154-020-082	4924 BALBOA BLVD	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92505
154-020-089	4924 BALBOA BLVD	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92505
154-020-086	4924 BALBOA BLVD	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92505
154-200-062	4924 BALBOA BLVD	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92505
154-200-022	PO BOX 3617	RIVERSIDE	CA	92519	N/AVAIL	RIVERSIDE,CA,92505
155-441-011	7211 AULD ST	RIVERSIDE	CA	92503	7211 AULD ST	RIVERSIDE,CA,92503
155-441-013	7197 AULD ST	RIVERSIDE	CA	92503	7197 AULD ST	RIVERSIDE,CA,92503
155-441-012	7201 AULD ST	RIVERSIDE	CA	92503	7201 AULD ST	RIVERSIDE,CA,92503
155-441-016	7177 AULD ST	RIVERSIDE	CA	92503	7177 AULD ST	RIVERSIDE,CA,92503
155-441-022	8175 LIMONITE AVE STE E	RIVERSIDE	CA	92509	N/AVAIL	RIVERSIDE,CA,92503
155-441-014	7191 AULD ST	RIVERSIDE	CA	92503	7191 AULD ST	RIVERSIDE,CA,92503
155-441-015	7183 AULD ST	RIVERSIDE	CA	92503	7183 AULD ST	RIVERSIDE,CA,92503
155-441-009	7231 AULD ST	RIVERSIDE	CA	92503	7231 AULD ST	RIVERSIDE,CA,92503
155-441-010	7221 AULD ST	RIVERSIDE	CA	92503	7221 AULD ST	RIVERSIDE,CA,92503
155-442-016	1815 PETALUMA AVE	LONG BEACH	CA	90815	7244 AULD ST	RIVERSIDE,CA,92503
155-040-004					N/AVAIL	RIVERSIDE,CA,92503
155-421-003	10087 JULIAN DR	RIVERSIDE	CA	92503	10087 JULIAN DR	RIVERSIDE,CA,92503
155-421-004	5711 CORTE BENISA	HEMET	CA	92545	10077 JULIAN DR	RIVERSIDE,CA,92503
155-421-005	10067 JULIAN DR	RIVERSIDE	CA	92503	10067 JULIAN DR	RIVERSIDE,CA,92503
155-421-006	10057 JULIAN DR	RIVERSIDE	CA	92503	10057 JULIAN DR	RIVERSIDE,CA,92503
155-421-007	10047 JULIAN DR	RIVERSIDE	CA	92503	10047 JULIAN DR	RIVERSIDE,CA,92503
155-421-008	10027 JULIAN DR	RIVERSIDE	CA	92503	10027 JULIAN DR	RIVERSIDE,CA,92503
155-421-009	10017 JULIAN DR	RIVERSIDE	CA	92503	10017 JULIAN DR	RIVERSIDE,CA,92503
155-421-010	10007 JULIAN DR	RIVERSIDE	CA	92503	10007 JULIAN DR	RIVERSIDE,CA,92503
155-423-012	10018 JULIAN DR	RIVERSIDE	CA	92503	10018 JULIAN DR	RIVERSIDE,CA,92503
155-423-013	1 ISLANDVIEW	IRVINE	CA	92604	10008 JULIAN DR	RIVERSIDE,CA,92503
163-300-009	1416 9TH ST	SACRAMENTO	CA	95814	N/AVAIL	RIVERSIDE,CA,92509
163-300-010	1416 9TH ST	SACRAMENTO	CA	95814	N/AVAIL	RIVERSIDE,CA,92509
155-453-018	7227 BRADFORD ST	RIVERSIDE	CA	92503	7227 BRADFORD ST	RIVERSIDE,CA,92503
155-453-010	7185 RUTLAND AVE	RIVERSIDE	CA	92503	7185 RUTLAND AVE	RIVERSIDE,CA,92503
155-453-020	7193 RUTLAND AVE	RIVERSIDE	CA	92503	7193 RUTLAND AVE	RIVERSIDE,CA,92503
155-453-021	7189 RUTLAND AVE	RIVERSIDE	CA	92503	7189 RUTLAND AVE	RIVERSIDE,CA,92503
163-300-008	1416 9TH ST	SACRAMENTO	CA	95814	N/AVAIL	RIVERSIDE,CA,92509
155-453-031	13968 ELMBROOK DR	LA MIRADA	CA	90638	7234 BRADFORD ST	RIVERSIDE,CA,92503
155-453-027	7222 BRADFORD ST	RIVERSIDE	CA	92503	7222 BRADFORD ST	RIVERSIDE,CA,92503
155-453-019	738 VALDOSTA CIR	CORONA	CA	92879	7197 RUTLAND AVE	RIVERSIDE,CA,92503
155-452-018	7195 BRADFORD ST	RIVERSIDE	CA	92503	7195 BRADFORD ST	RIVERSIDE,CA,92503
155-453-030	7188 BRADFORD ST	RIVERSIDE	CA	92503	7188 BRADFORD ST	RIVERSIDE,CA,92503
155-453-028	8364 E SCARBOROUGH CT	ORANGE	CA	92867	7196 BRADFORD ST	RIVERSIDE,CA,92503
155-453-029	7192 BRADFORD ST	RIVERSIDE	CA	92503	7192 BRADFORD ST	RIVERSIDE,CA,92503
155-453-012	7186 BRADFORD ST	RIVERSIDE	CA	92503	7186 BRADFORD ST	RIVERSIDE,CA,92503
155-464-009	1416 9TH ST	SACRAMENTO	CA	95814	N/AVAIL	RIVERSIDE,CA,92503
155-452-017	7194 RUTLAND AVE	RIVERSIDE	CA	92503	7194 RUTLAND AVE	RIVERSIDE,CA,92503
155-452-019	7191 BRADFORD ST	RIVERSIDE	CA	92503	7191 BRADFORD ST	RIVERSIDE,CA,92503
155-452-020	7187 BRADFORD ST	RIVERSIDE	CA	92503	7187 BRADFORD ST	RIVERSIDE,CA,92503
155-452-021	2401 CALIFORNIA ST	HUNTINGTON PARK	CA	90255	7183 BRADFORD ST	RIVERSIDE,CA,92503
155-453-011	2340 E LARKWOOD ST	WEST COVINA	CA	91791	7182 BRADFORD ST	RIVERSIDE,CA,92503
155-452-022	7179 BRADFORD ST	RIVERSIDE	CA	92503	7179 BRADFORD ST	RIVERSIDE,CA,92503
155-464-005	7175 BRADFORD ST	RIVERSIDE	CA	92503	7175 BRADFORD ST	RIVERSIDE,CA,92503
155-464-001	7164 BRADFORD ST	RIVERSIDE	CA	92503	7164 BRADFORD ST	RIVERSIDE,CA,92503
155-464-003	1411 SUTHERLAND DR	RIVERSIDE	CA	92507	7174 BRADFORD ST	RIVERSIDE,CA,92503
155-464-004	7178 BRADFORD ST	RIVERSIDE	CA	92503	7178 BRADFORD ST	RIVERSIDE,CA,92503
155-464-002	6501 CARLO DR	RIVERSIDE	CA	92506	7170 BRADFORD ST	RIVERSIDE,CA,92503
155-463-002	7138 BRADFORD ST	RIVERSIDE	CA	92503	7138 BRADFORD ST	RIVERSIDE,CA,92503
155-463-007	1453 S EASY WAY	ANAHEIM	CA	92804	7128 BRADFORD ST	RIVERSIDE,CA,92503
155-463-001	7132 BRADFORD ST	RIVERSIDE	CA	92503	7132 BRADFORD ST	RIVERSIDE,CA,92503
163-300-005	3133 MISSION INN AVE	RIVERSIDE	CA	92507	N/AVAIL	RIVERSIDE,CA,92509
163-300-006	3133 MISSION INN AVE	RIVERSIDE	CA	92507	N/AVAIL	RIVERSIDE,CA,92509
163-300-013	3900 MAIN ST	RIVERSIDE	CA	92522	N/AVAIL	RIVERSIDE,CA,92509
189-110-001	3133 MISSION INN AVE	RIVERSIDE	CA	92507	N/AVAIL	RIVERSIDE,CA,92504
189-110-011	PO BOX 54153	LOS ANGELES	CA	90054	N/AVAIL	RIVERSIDE,CA,92504
189-110-002	4924 BALBOA BLVD # 489	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92504
189-110-009	4924 BALBOA BLVD # 489	ENCINO	CA	91316	N/AVAIL	RIVERSIDE,CA,92504
189-120-001	3900 MAIN ST	RIVERSIDE	CA	92522	N/AVAIL	RIVERSIDE,CA,92504
163-300-014	3900 MAIN ST	RIVERSIDE	CA	92522	N/AVAIL	RIVERSIDE,CA,92509

APN	MAILING ADDRESS	MAILING CITY	MAILING STATE	MAILING ZIP CODE	PROPERTY ADDRESS	PROPERTY CITY, STATE, ZIP
189-120-002	101 ASH ST	SAN DIEGO	CA	92101	N/AVAIL	RIVERSIDE,CA,92504
189-120-009	MANHEIM TAX	ATLANTA	GA	30328	5894 PAYTON AVE	RIVERSIDE,CA,92504
189-120-005	PO BOX 54153	LOS ANGELES	CA	90054	N/AVAIL	RIVERSIDE,CA,92504
189-120-007	5821 WILDERNESS AVE	RIVERSIDE	CA	92504	5821 WILDERNESS AVE	RIVERSIDE,CA,92504
189-120-006	PO BOX 54153	LOS ANGELES	CA	90054	N/AVAIL	RIVERSIDE,CA,92504
189-100-006	3900 MAIN ST	RIVERSIDE	CA	92522	N/AVAIL	RIVERSIDE,CA,92504
189-110-010	PO BOX 1180	RIVERSIDE	CA	92502	N/AVAIL	RIVERSIDE,CA,92504
189-100-009	PO BOX 489	RIVERSIDE	CA	92502	N/AVAIL	RIVERSIDE,CA,92504
155-060-027	3900 MAIN ST	RIVERSIDE	CA	92522	N/AVAIL	RIVERSIDE,CA,92503
155-463-006	7124 BRADFORD ST	RIVERSIDE	CA	92503	7124 BRADFORD ST	RIVERSIDE,CA,92503
163-300-011	3900 MAIN ST	RIVERSIDE	CA	92522	N/AVAIL	RIVERSIDE,CA,92509
155-463-005	7120 BRADFORD ST	RIVERSIDE	CA	92503	7120 BRADFORD ST	RIVERSIDE,CA,92503

Riverside Transmission Reliability Project Interested Party List for Notice of Application		
Rick Bondar, Vernola Trusts c/o McCune & Associates, Inc. P.O. Box 1295 Corona, CA 92878	John Condas Allen Matkins 1900 Main Street, 5th Floor Irvine, CA 92614-7321	Frank Johnston, Council City of Jurupa Valley 8930 Limonite Avenue Jurupa Valley, CA 92509
Anthony P. Vernola, Vernola Trusts c/o McCune & Associates, Inc. P.O. Box 1295 Corona, CA 92878	Brad Hancock, Mayor City of Jurupa Valley 8930 Limonite Avenue Jurupa Valley, CA 92509	Verne Lauritzen, Council City of Jurupa Valley 8930 Limonite Avenue Jurupa Valley, CA 92509
David Cosgrove Rutan & Tucker, LLP P.O. Box 1950 Costa Mesa, CA 92628-1950	Laura Roughton, Mayor Pro-Tem City of Jurupa Valley 8930 Limonite Avenue Jurupa Valley, CA 92509	Brian Berkson, Council City of Jurupa Valley 8930 Limonite Avenue Jurupa Valley, CA 92509
Mark Torres Lennar Homes 980 Montecito Dr, Ste 302 Corona, CA 92879	Jeff Clemens Lennar Homes 980 Montecito Dr, Ste 302 Corona, CA 92879	Randy Schroeder Lennar Homes 980 Montecito Dr, Ste 302 Corona, CA 92879
Gary Thompson, City Manager City of Jurupa Valley 8930 Limonite Avenue Jurupa Valley, CA 92509	Kenneth Erik Friess Allen Matkins et al LLP 1900 Main St 5th Fl Irvine, CA 92614	Peter Thorson Richards Watson & Gershon 355 S Grand Ave 40FL Los Angeles, CA 90071-3101

Riverside Transmission Reliability Project Agency Mailing List for Notice of Application		
Mr. Kevin Jeffries, Supervisor Riverside County Board of Supervisors P.O. Box 1486 Riverside, CA 92502	Mr. Jay Orr, County Exec Officer County of Riverside 4080 Lemon Street - 4th Floor Riverside, CA 92501	Ms. Mary Stark, Planning Comm. Sec County of Riverside P.O. Box 1409 Riverside, CA 92502
Mr. John Tavaglione, Supervisor Riverside County Board of Supervisors P.O. Box 1486 Riverside, CA 92502	Juan Perez, TLMA Director Riverside County Planning Dept. P.O. Box 1409 Riverside, CA 92502-1409	Brad Hancock, Mayor City of Jurupa Valley 8304 Limonite Ave, Suite M Jurupa Valley CA 92509
Gary Thompson, City Manager City of Jurupa Valley 8304 Limonite Ave, Suite M Jurupa Valley CA 92509	Roy Stephenson, Public Works Dir City of Jurupa Valley 8304 Limonite Ave, Suite M Jurupa Valley CA 92509	Thomas Merell, Planning Director City of Jurupa Valley 8304 Limonite Ave, Suite M Jurupa Valley CA 92509
George Ruiz, Planning Commission City of Jurupa Valley 8304 Limonite Ave, Suite M Jurupa Valley CA 92509	Herb Higgins, Mayor City of Norco 2870 Clark Avenue Norco CA 92860	Andy Okoro, City Manager City of Norco 2870 Clark Avenue Norco CA 92860
Lori Askew, Public Works Director City of Norco 2870 Clark Avenue Norco CA 92860	Planning Commission City of Norco 2870 Clark Avenue Norco CA 92860	Steve King, Planning Director City of Norco 2870 Clark Avenue Norco CA 92860
Rusty Bailey, Mayor City of Riverside 3900 Main Street Riverside CA 92522	Steve Adams, Council Member City of Riverside 3900 Main Street Riverside CA 92522	Planning Commission City of Riverside 3900 Main Street, 3rd Fl Riverside CA 92522
Mike Soubirous, Council Member City of Riverside 3900 Main Street Riverside CA 92522	Girish Balachandran, General Mgr. Riverside Public Utilities 3750 University Ave, 3rd Fl Riverside CA 92501	Lee McDougal, Interim City Manager City of Riverside 3900 Main Street Riverside CA 92522
Emilio Ramirez, Comm Dev Director City of Riverside 3900 Main Street, 3rd Fl Riverside CA 92522	Gary Cathey, Chief Div of Aeroautics Dept. of Transportation – MS 40 P. O. Box 942874 Sacramento, CA 94274-0001	John Laird, Secretary California Resources Agency 1416 Ninth St. - Suite 1311 Sacramento, CA 95814
Charlton H. Bonham, Director California Dept. of Fish and Wildlife 1416 9th Street, 12th Floor Sacramento, CA 95814	Toby Douglas, Director Department of Health Services 1501 Capitol Ave. - Suite 6001 Sacramento, CA 94234-7320	Tom Howard, Executive Director State Water Resources Control Brd P.O. Box 100 Sacramento, CA 95812-0100
Richard Corey, Executive Officer California Air Resources Board P.O. Box 2815 Sacramento, CA 95812	Malcolm Dougherty, Director Department of Transportation P.O. Box 942873 Sacramento, CA 94273-0001	Basem E. Muallem, District Director Dept. of Transportation - District 8 464 W. Fourth Street San Bernardino, CA 92401
Barry R. Wallerstein, Exec. Officer South Coast Air Quality Mngmt Dist. 21865 Copley Drive Diamond Bar, CA 91765	Kurt V. Berchtold, Executive Officer Regional Water - Santa Ana Office 3737 Main Street, Suite 500 Riverside, CA 92501-3339	Karen Miller, CPUC Public Advisor California Public Utilities Comm. 505 Van Ness Avenue San Francisco, CA 94102
Edward Randolph, Energy Div Director California Public Utilities Comm. 505 Van Ness Avenue San Francisco, CA 94102	Robert Oglesby, Executive Director California Energy Commission 1516 Ninth Street Sacramento, CA 95814	Regional Director-Region 8 Federal Bldg – Dept. Fish & Wildlife 2800 Cottage Way, Room W-2606 Sacramento, CA 95825-1846

Riverside Transmission Reliability Project Agency Mailing List for Notice of Application		
Dr. Dan Swenson, Section Chief U.S. Army Corps of Engineers – Reg Div. 915 Wilshire Blvd. Los Angeles, CA 90017	Carolyn S. Luna, Executive Director Riverside Co. Habitat Conserv Agcy 4080 Lemon St - 12th Floor Riverside, CA 92501	Charles Landry, Executive Director Western Riverside Co. Reg Conserv Auth 3403 10th Street, Suite 320 Riverside, CA 92501
Victor Globa FAA - West-Pac Region Environmental P. O. Box 92007 Los Angeles, CA 90009	Lisa Mangat, Acting Director CA Dept of Parks & Recreation P.O. Box 942896 Sacramento, CA 94296	Patricia Neubacher, Regional Director National Park Service 333 Bush Street, Suite 500 San Francisco, CA 94104-2828
John Russo, City Manager City of Riverside 3900 Main Street Riverside, CA 92522		

Appendix E

RTRP CORPORATE INFORMATION AND ARTICLES OF INCORPORATION

CORPORATE INFORMATION

SCE is a corporation organized and existing under the laws of the State of California, and is primarily engaged in the business of generating, purchasing, transmitting, distributing and selling electric energy for light, heat and power in portions of central and southern California as a public utility subject to the jurisdiction of the California Public Utilities Commission. SCE's properties, which are located primarily within the State of California, consist mainly of hydroelectric and thermal electric generating plants, together with transmission and distribution lines and other property necessary in connection with its business.

SCE's principal place of business is 2244 Walnut Grove Avenue, Rosemead, California, and its post office address and telephone number are:

Southern California Edison Company
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-1212

Communications in regard to this Application are to be addressed to the attention of Ian M. Forrest, Esq., Senior Attorney, Real Property, Local Government Affairs & Licensing, Law Department, 376A, at the above address; at telephone number (626) 302 - 6980.

A copy of SCE's Certificate of Restated Articles of Incorporation, effective on March 2, 2006, and presently in effect, certified by the California Secretary of State, was filed with the Commission on March 14, 2006, in connection with Application No. 06-03-020, and is incorporated herein by this reference pursuant to Rule 2.2 of the Commission's Rules of Practice and Procedure.

A copy of SCE's Certificate of Determination of Preferences of the Series D Preference Stock filed with the California Secretary of State on

March 7, 2011, and presently in effect, certified by the California Secretary of State, was filed with the Commission on April 1, 2011, in connection with Application No. 11-04-001, and is incorporated herein by this reference.

A copy of SCE's Certificate of Determination of Preferences of the Series E Preference Stock filed with the California Secretary of State on January 12, 2012, and a copy of SCE's Certificate of Increase of Authorized Shares of the Series E Preference Stock filed with the California Secretary of State on January 31, 2012, and presently in effect, certified by the California Secretary of State, were filed with the Commission on March 5, 2012, in connection with Application No. 12-03-004, and are incorporated herein by this reference.

A copy of SCE's Certificate of Determination of Preferences of the Series F Preference Stock filed with the California Secretary of State on May 5, 2012, and presently in effect, certified by the California Secretary of State, was filed with the Commission on June 29, 2012, in connection with Application No. 12-06-017, and is incorporated herein by this reference.

A copy of SCE's Certificate of Determination of Preferences of the Series G Preference Stock filed with the California Secretary of State on January 24, 2013, and presently in effect, certified by the California Secretary of State, was filed with the Commission on January 31, 2013, in connection with Application No. 13-01-016, and is incorporated herein by this reference.

A copy of SCE's Certificate of Determination of Preferences of the Series H Preference Stock filed with the California Secretary of State on February 28, 2014, and presently in effect, certified by the California Secretary of State, was filed with the Commission on March 24, 2014, in

connection with Application No. 14-03-013, and is incorporated herein by this reference.

Certain classes and series of SCE's capital stock are listed on a "national securities exchange" as defined in the Securities Exchange Act of 1934 and copies of SCE's latest Annual Report to Shareholders and its latest proxy statement sent to its stockholders has been filed with the Commission with a letter of transmittal dated March 13, 2015, pursuant to General Order Nos. 65-A and 104-A of the Commission.

Appendix F

RTRP BALANCE SHEET AND STATEMENT OF INCOME AS OF DECEMBER 31, 2014

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET
DECEMBER 31, 2014
ASSETS
(in millions)

UTILITY PLANT:	
Utility plant, at original cost *	$ 37,522
Less- accumulated provision for depreciation and decommissioning *	8,132
	29,390
Construction work in progress	3,339
Nuclear fuel, at amortized cost	130
	32,859
OTHER PROPERTY AND INVESTMENTS:	
Nonutility property - less accumulated depreciation of $75	69
Nuclear decommissioning trusts	4,799
Other investments	158
	5,026
CURRENT ASSETS:	
Cash and equivalents	38
Receivables, less allowances of $68 for uncollectible accounts	749
Accrued unbilled revenue	632
Inventory	275
Derivative assets	102
Regulatory assets	1,254
Deferred income taxes	-
Other current assets	390
	3,440
DEFERRED CHARGES:	
Regulatory assets	7,612
Derivative assets	219
Other long-term assets	300
	8,131
	$ 49,456

* Detailed by class on following pages.

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET
DECEMBER 31, 2014
CAPITALIZATION AND LIABILITIES
(in millions)

CAPITALIZATION:	
Common stock	$ 2,168
Additional paid-in capital	618
Accumulated other comprehensive loss	(28)
Retained earnings	8,454
Common shareholder's equity	11,212
Preferred and preference stock	2,070
Long-term debt	9,624
Total capitalization	22,906
CURRENT LIABILITIES:	
Short-term debt	667
Current portion of long-term debt	300
Accounts payable	1,556
Accrued taxes	87
Customer deposits	221
Derivative liabilities	196
Regulatory liabilities	401
Deferred income taxes	209
Other current liabilities	1,183
	4,820
DEFERRED CREDITS:	
Deferred income taxes and credits	8,288
Derivative liabilities	1,052
Pensions and benefits	1,672
Asset retirement obligations	2,819
Regulatory liabilities	5,889
Other deferred credits and other long-term liabilities	2,010
	21,730
	$ 49,456

SOUTHERN CALIFORNIA EDISON COMPANY

(h) A balance sheet as of the latest available date, together with an income statement covering the period from close of last year for which an annual report has been filed with the Commission to the date of the balance sheet attached to the application.

STATEMENT OF INCOME
TWELVE MONTHS ENDED DECEMBER 31, 2014

(In millions)

OPERATING REVENUE	$ 13,380
OPERATING EXPENSES:	
Purchase power and fuel	5,593
Other operation and maintenance	3,057
Depreciation, decommissioning and amortization	1,720
Property and other taxes	318
Impairment and other charges	163
Total operating expenses	10,851
OPERATING INCOME	2,529
Interest and other income	122
Interest expense	(533)
Other expenses	(79)
INCOME BEFORE INCOME TAX	2,039
INCOME TAX	474
NET INCOME	1,565
Less: Preferred and preference stock dividend requirements	112
NET INCOME AVAILABLE FOR COMMON STOCK	$ 1,453

Appendix G

RTRP COMPETING ENTITIES

APPENDIX G

(CPUC Rule 3.1(b))

COMPETING ENTITIES FOR THE RIVERSIDE TRANSMISSION RELIABILITY PROJECT

Southern California Edison Company ("SCE") is proposing to construct the Riverside Transmission Reliability Project ("RTRP") with the City of Riverside's ("Riverside's") municipal utility department known as Riverside Public Utilities ("RPU"). RPU is generally responsible for the construction of RTRP elements within Riverside's jurisdiction.

In contrast, SCE is responsible for, and this application for a Certificate of Public Convenience and Necessity is submitted in support of, the construction of RTRP's "ISO Controlled Facilities," *i.e.*, facilities under the operational control of the California Independent System Operator. These ISO Controlled Facilities lie entirely within the boundaries of SCE's existing service territory, and, as such, SCE will not compete with any other utility, corporation or person.

The names of cities and counties within which SCE's service will be rendered are attached hereto:

SOUTHERN CALIFORNIA EDISON

An EDISON INTERNATIONAL Company

Incorporated Cities and Counties Served by SCE

COUNTIES

Fresno	Kern	Madera	Riverside	Tuolumne
Imperial	Kings	Mono	San Bernardino	Tulare
Inyo	Los Angeles	Orange	Santa Barbara	Ventura

CITIES

Adelanto
Agoura Hills
Alhambra
Aliso Viejo
Apple Valley
Arcadia
Artesia
Avalon
Baldwin Park
Barstow
Beaumont
Bell
Bell Gardens
Bellflower
Beverly Hills
Big Bear Lake
Bishop
Blythe
Bradbury
Brea
Buena Park
Calabasas
California City
Calimesa
Camarillo
Canyon Lake
Carpinteria
Carson
Cathedral City
Cerritos
Chino
Chino Hills
Claremont
Commerce
Compton
Corona
Costa Mesa
Covina
Cudahy
Culver City
Cypress
Delano
Desert Hot Springs
Diamond Bar
Downey
Duarte
Eastvale
El Monte
El Segundo
Exeter
Farmersville
Fillmore
Fontana
Fountain Valley
Fullerton
Garden Grove
Gardena
Glendora
Goleta
Grand Terrace
Hanford
Hawaiian Gardens
Hawthorne
Hemet
Hermosa Beach
Hesperia
Hidden Hills
Highland
Huntington Beach
Huntington Park
Indian Wells
Industry
Inglewood
Irvine
Irwindale
Jurupa Valley
La Canada Flintridge
La Habra
La Habra Heights
La Mirada
La Palma
La Puente
La Verne
Laguna Beach
Laguna Hills
Laguna Niguel
Laguna Woods
Lake Elsinore
Lake Forest
Lakewood
Lancaster
Lawndale
Lindsay
Loma Linda
Lomita
Long Beach
Los Alamitos
Lynwood
Malibu
Mammoth Lakes
Manhattan Beach
Maywood
McFarland
Menifee
Mission Viejo
Monrovia
Montclair
Montebello
Monterey Park
Moorpark
Moreno Valley
Murrieta
Newport Beach
Norco
Norwalk
Ojai
Ontario
Orange
Oxnard
Palm Desert
Palm Springs
Palmdale
Palos Verdes
Paramount
Perris
Pico Rivera
Placentia
Pomona
Port Hueneme
Porterville
Rancho Cucamonga
Rancho Mirage
Rancho Palos Verdes
Rancho Santa Margarita
Redlands
Redondo Beach
Rialto
Ridgecrest
Rolling Hills
Rolling Hills Estates
Rosemead
San Bernardino
San Buenaventura
San Dimas
San Fernando
San Gabriel
San Jacinto
San Marino
Santa Ana
Santa Barbara
Santa Clarita
Santa Fe Springs
Santa Monica
Santa Paula
Seal Beach
Sierra Madre
Signal Hill
Simi Valley
South El Monte
South Gate
South Pasadena
Stanton
Tehachapi
Temecula
Temple City
Thousand Oaks
Torrance
Tulare
Tustin
Twentynine Palms
Upland
Valencia
Victorville
Villa Park
Visalia
Walnut
West Covina
West Hollywood
Westlake Village
Westminster
Whittier
Wildomar
Woodlake (Three Rivers)
Yorba Linda
Yucaipa
Yucca Valley

Last Updated: 5/12/2014

Updated by Sylvia S. Hernandez

Appendix H

RTRP ANNUAL REVENUE REQUIREMENT

APPENDIX H

(CPUC Rule 3.1(h); Public Utilities Code § 1003(d))

RIVERSIDE TRANSMISSION RELIABILITY PROJECT ANNUAL REVENUE REQUIREMENT

Most of the facilities that comprise the Project are electric transmission facilities, the reasonableness of costs and the associated ratemaking are under the exclusive jurisdiction of FERC.

SCE will seek to recover certain prudently incurred costs associated with RTRP through Commission-jurisdictional rates as may be warranted.

The revenue requirement of such costs, if any, is not presently known.

Appendix I

RTRP ESTIMATED COSTS

Riverside Transmission Reliability Project

2 0 1 5 D O L L A R S

	Project Element	Cost (2015$)
	Licensing	
1.01	*All Licensing (less CEH&S Lic)*	**$5**
1.02	*CEH&S Licensing*	**$1**
	Substation	
2.01	*Wildlife*	**$16**
2.02	*Vista*	**$0.2**
2.03	*Mira Loma*	**$0.1**
	Trans (>200kV)	
3.01	*Mira Loma - Vista 220kV*	**$80**
	Telecom	
4.01	*IT: Mira Loma-Vista OPGW*	**$2**
	Edison Carrier Solutions	
5.01	*ECS: Pedley-Wildlife ADSS*	**$1**
	Power System Control	
6.01	*RTU at Wildlife & point of additions at Mira Loma & Vista*	**$0.1**
	Real Properties	
7.01	*LCOR*	**$1**
7.02	*LCAP - ISO ROW Acquisition*	**$73**
7.03	*LCAP - Non-ISO ROW Acquisition*	**$0.1**
	Environmental	
8.01	*Monitoring & Mitigation*	**$14**
	Direct Expenditures:	**$194**
	Direct Expenditures w/ 15% Contingency:	**$222**

NOTES: *Direct Costs in millions of 2015 constant dollars, excludes corporate overhead and cost of financing*

Riverside Transmission Reliability Project

N O M I N A L D O L L A R S

	Project Element	Cost (Nominal)
	Licensing	
1.01	*All Licensing (less CEH&S Lic)*	**$5**
1.02	*CEH&S Licensing*	**$1**
	Substation	
2.01	*Wildlife*	**$17**
2.02	*Vista*	**$0.2**
2.03	*Mira Loma*	**$0.2**
	Trans (>200kV)	
3.01	*Mira Loma - Vista 220kV*	**$86**
	Telecom	
4.01	*IT: Mira Loma-Vista OPGW*	**$2**
	Edison Carrier Solutions	
5.01	*ECS: Pedley-Wildlife ADSS*	**$1**
	Power System Control	
6.01	*RTU at Wildlife & point of additions at Mira Loma & Vista*	**$0.1**
	Real Properties	
7.01	*LCOR*	**$1**
7.02	*LCAP - ISO ROW Acquisition*	**$76**
7.03	*LCAP - Non-ISO ROW Acquisition*	**$0.1**
	Environmental	
8.01	*Monitoring & Mitigation*	**$15**
	Direct Expenditures:	**$204**
	Direct Expenditures w/ 15% Contingency:	**$234**

NOTES: *Direct Costs in millions of nominal dollars, excludes corporate overhead and cost of financing*

Appendix J

APRIL 9, 2015 CORRESPONDENCE FROM RIVERSIDE PUBLIC UTILITIES IN SUPPORT OF RTRP

CITY OF RIVERSIDE

City of Arts & Innovation

April 9, 2015

Kenneth Spear
Sr. Project Manager
Southern California Edison
6 Pointe Drive, 4th Floor 4005
Brea, CA 92821

RE: LETTER OF SUPPORT FOR RIVERSIDE TRANSMISSION RELIABILITY PROJECT (RTRP)

Dear Mr. Spear,

The City of Riverside strongly supports Southern California Edison's application to the California Public Utilities Commission for Riverside Transmission Reliability Project (RTRP).

During the June 14, 2006 California Independent System Operator's (CAISO's) Board of Governors meeting, SCE was directed to build the RTRP as soon as possible and preferably no later than June 30, 2009. The City of Riverside prepared and circulated a Draft Environmental Impact Report in August 2011 for public comment. After a lengthy public review, the City addressed all comments received and the City Council for the City of Riverside certified the Final Environmental Impact Report for the Riverside Transmission Reliability Project at its meeting on February 5, 2013.

The rapid population growth and development in Riverside have led to an increase in local electric customers and their use of electrical energy. Currently, the sole source of bulk electrical energy for the City of Riverside is through SCE's Vista substation, located within the City of Grand Terrace. Riverside's electrical demand has exceeded the available 557 MW of capacity from Vista Substation. It is normal utility practice to have alternate sources of supply at various points in the electric system. The CAISO Board of Governors, which operates California's power transmission system, recognized the need for another interconnection point in Riverside's system in 2006 and directed the utility to pursue RTRP.

RTRP will provide Riverside with a new interconnection to SCE's transmission system. This new interconnection is urgently needed to provide capacity for existing as well as new electrical load. In addition, RTRP provides an additional point of interconnection to the CAISO controlled grid for reliability purposes. Without this project, load shedding and area electrical blackouts will eventually be required.

Riverside urges SCE to proceed with its application to the CPUC for their approval of RTRP.

Respectfully,

Girish Balachandran
General Manager
Riverside Public Utilities – City of Riverside

GB:GH:cef - PUGM-015-009_RPU Letter of Support to SCE for RTRP

Riverside Public Utilities • Administration

3750 University Avenue, 3rd floor • Riverside, CA 92501 • 951.826.2135 • RiversidePublicUtilities.com

WATER | ENERGY | LIFE
CITY OF RIVERSIDE
PUBLIC UTILITIES

VERIFICATION

I am an officer of the applicant corporation herein, and am authorized to make this verification on its behalf. I am informed and believe that the matters stated in the foregoing document are true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this **15th day of April, 2015**, at Rosemead, California.

/s/ Kevin R. Cini

Kevin R. Cini
Vice President, Major Projects
SOUTHERN CALIFORNIA EDISON COMPANY

6 Pointe Drive
Brea, California 92821