



BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA

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In the Matter of the Application of SOUTHERN)
CALIFORNIA EDISON COMPANY (U 338-E))
for a Permit to Construct Electrical Facilities:)
Red Bluff Substation Project)

Application No. _____

(Filed November 17, 2010) ^{A1011012}

APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A
PERMIT TO CONSTRUCT ELECTRICAL FACILITIES: RED BLUFF SUBSTATION
PROJECT

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Dated: **November 17, 2010**

**APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A
PERMIT TO CONSTRUCT ELECTRICAL FACILITIES: RED BLUFF SUBSTATION
PROJECT**

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I.

INTRODUCTION

Pursuant to California Public Utilities Commission's (Commission or CPUC) General Order 131-D (GO 131-D) Southern California Edison Company (SCE) respectfully submits this Application for a permit to construct (PTC) authorizing SCE to construct the proposed project known as the Red Bluff Substation Project (Project). The Proposed Project will facilitate the interconnection of renewable generation development projects in the Desert Center area of the Mohave Desert to SCE's existing Devers-Palo Verde (DPV) Transmission Line (T/L) and will create the Colorado River - Red Bluff Nos. 1 & 2 and Devers - Red Bluff Nos. 1 & 2 500 kilovolt (kV) T/Ls. For this PTC application, the Project consists of:

1. **Red Bluff Substation:** Construct a new 500/220 kV substation enclosing approximately 75 acres of land.

2. **Transmission Lines:** Loop the existing DPV 500 kV T/L (referred to as DPV#1 in the DPV2 CPCN) into the Red Bluff Substation by adding a total of approximately 5,000 to 7,000 feet of new T/L segments (two parallel lines ranging between 2,500 to 3,500 feet long each within a corridor approximately 1,000 feet wide), creating the Colorado River-Red Bluff No.1 and Devers-Red Bluff No.1 500 kV T/Ls.¹
3. **Transmission Lines:** Loop the proposed Devers-Colorado River (DCR) 500 kV T/L (referred to as DPV2 in the DPV2 CPCN) into the Red Bluff Substation by adding a total of approximately 5,000 to 7,000 feet of new T/L segments (two parallel lines ranging between 2,500 to 3,500 feet long each within a corridor approximately 1,000 feet wide), creating the Colorado River-Red Bluff No.2 and Devers-Red Bluff No.2 500 kV T/Ls.
4. **Generation Tie Line Connections:** Connect the customer-constructed and owned 220kV generation tie lines (gen-ties) into the Red Bluff Substation.
5. **Modification of existing 220 kV structures:** The necessary crossing of the existing Florida Power & Light (FPL) Buck-Julian Hinds 220 kV T/L by the proposed SCE 500 kV loop-in lines may require modifications. New tubular steel poles (TSPs) (subject to final engineering) to modify the construction at the crossing location may be needed to replace or supplement the existing poles.
6. **Distribution Line for Substation Light and Power:** Rebuild the Desert Center 12 kV circuit overhead along the south frontage of the I-10 freeway for approximately 20,000 feet to upgrade the circuit from single-phase to three-phase construction and then construct a new line extension for approximately 1,000 feet underground (south) into the substation. This rebuild would require approximately 100 poles to be replaced, assuming an average span of 200 feet.

¹ The naming convention for the proposed Red Bluff Substation and associated transmission tie loop-in incorporates the Colorado River Substation. (see (D.) 07-01-040 and (D.)09-11-007) Therefore, the line names would be the Colorado River – Red Bluff and Devers-Red Bluff T/Ls

7. **Telecommunications Facilities:** Install optical ground wire (OPGW) from the last customer owned structure supporting the customer proposed renewable projects' generation tie-lines to the Red Bluff Substation to complete the required telecommunication path and connect to associated equipment installed inside both the proposed Red Bluff Substation and the proposed solar projects' substations. Install a new microwave repeater station near the Desert Center airport, consisting of a new 12 foot by 36 foot communications room and associated equipment, along with a 185 foot tall lattice steel communications tower and two (2) 10 foot diameter microwave antennas. Install an additional 100' microwave tower and one (1) 10 foot diameter microwave antenna at SCE's existing Chuckwalla Mountain Communications Site.

Construction of the Proposed Project is expected to start in the third quarter of 2011 and would proceed for approximately two years. The projected substation operating date is in the third quarter of 2013.

II.

BACKGROUND AND SUMMARY OF REQUEST

Desert Sunlight Holdings, LLC, a wholly owned subsidiary of First Solar Development, Inc. (First Solar), proposes to construct and operate a 550-megawatt (MW), nominal capacity, alternating current (AC), solar photovoltaic (PV), energy-generating project known as the Desert Sunlight Solar Farm (DSSF). The Project would be located on lands administered by the US Department of Interior (DOI) - Bureau of Land Management (BLM) Palm Springs-South Coast Field Office. DSSF would interconnect into the ISO grid at the proposed Project.² The estimated cost of this Project is \$217 million, expressed in 2010 constant dollars.³ The Large

² Draft Plan Amendment/Environmental Impact Statement for Desert Sunlight Solar Farm Project, at Chapter 1, Section 1-1.

³ This is a conceptual estimate, prepared in advance of final engineering and prior to CPUC approval. Pension and benefits, administrative and general expenses are included in the estimate; however, allowance for funds used during construction are not included in this estimate.

Generator Interconnection Agreement was executed by the ISO, First Solar, and SCE on August 4, 2010.

The DSSF Draft Plan Amendment/Draft Environmental Impact Statement (DPA/DEIS) was issued by the Bureau of Land Management on August 27, 2010. The proposed DSSF project will assist California and its investor-owned utilities in meeting the California's Renewable Portfolio Standards and Greenhouse Gas emissions reduction requirements, including the requirements set forth in Senate Bill (SB) 1078 (California Renewables Portfolio Standard Program), Assembly Bill (AB) 32 (California Global Warming Solutions Act of 2006), and the Governor's Executive Order S-14-08 (Increasing California's Renewable Energy Standard to 33 percent renewable power by 2020). The California RETI is a statewide planning process that has been underway for over two years to identify the transmission projects needed to accommodate California's renewable energy goals. Stakeholders have actively participated in the planning process. Phases 1 and 2 of the RETI project resulted in the identification and refinement of Competitive Renewable Energy Zones (CREZs), which have been determined to hold the greatest potential for cost-effective and environmentally responsible renewable energy development. The Project Study Area is located in an area that has been included by the RETI within the Riverside East CREZ.

III.

ENVIRONMENTAL REVIEW

In order to construct the Project, SCE must first obtain a PTC from the CPUC. Typically an application for a PTC would be accompanied by a Proponent's Environmental Assessment (PEA). However, this Project relies on PEA-equivalent information to satisfy the requirements under GO131-D.⁴ This Project has been evaluated as a portion of the DSSF DPA/DEIS issued on August 27, 2010 by the BLM. The CPUC and BLM have signed an MOU that defines the

⁴ GO 131-D.Section IX.B.1.e.

relationship of the two agencies, and identifies the CPUC as the cooperating agency with the BLM as the lead agency for preparation of the EIS.

The DPA/DEIS will be referenced where appropriate, as the source of information required in an Application for a PTC pursuant to GO 131-D, Section IX.B. A complete Project Description is located in Chapter Two Section 2-24 of the DPA/DEIS. A statement of purpose and need is located in Chapter One of the DPA/DEIS. Construction of the Project is anticipated to begin in third quarter of 2011 and to be completed by third quarter of 2013.

IV.

STATUTORY AND PROCEDURAL REQUIREMENTS

A. Applicant

The applicant is Southern California Edison Company, an electric public utility company 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:

Angela Whatley
Attorney
Southern California Edison Company
Post Office Box 800
Rosemead, California 91770
Phone: (626) 302-3618
Fax: (626) 302-1926

With a copy to:

Case Administration
Southern California Edison Company
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Phone: (626) 302-3101
Fax: (626) 302-3119

B. Articles Of Incorporation

A copy of SCE's Restated Articles of Incorporation, as amended through June 1, 1993, and as presently in effect, certified by the California Secretary of State, was filed with the Commission on June 15, 1993, in connection with Application No. 93-06-022⁵ and is incorporated herein by reference, pursuant to Rule 2.2 of the Commission's Rules of Practice and Procedure.

C. Balance Sheet And Statement Of Income

Appendix A to this Application contains copies of SCE's balance sheet and statement of income as of June 30, 2010. The balance sheet reflects SCE's utility plant at original cost, less accumulated depreciation.

Since 1954, pursuant to Commission Decision No. 49665 dated February 16, 1954, in Application No. 33952, as modified by Decision No. 91799 in 1980, SCE has utilized straight-line remaining life depreciation for computing depreciation expense for accounting and ratemaking purposes in connection with its operations.

Pursuant to Commission Decision No. 59926, dated April 12, 1960, SCE uses accelerated depreciation for income tax purposes and "flows through" reductions in income tax to customers within the Commission's jurisdiction for property placed in service prior to 1981. Pursuant to Decision No. 93848 in OII-24, SCE uses the Accelerated Cost Recovery System (ACRS) for federal income tax purposes and "normalizes" reductions in income tax to customers for property placed in service after 1980 in compliance with the Economic Recovery Tax Act of 1981, and also in compliance with the Tax Reform Act of 1986. Pursuant to Decision No. 88-01-061, dated January 28, 1988, SCE uses a gross of tax interest rate in calculating the AFUDC Rate, and income tax normalization to account for the increased income tax expense occasioned by the Tax

⁵ Application No. 93-06-22, filed June 15, 1993, regarding approval of a Self-Generation Deferral Agreement between Mobil Oil Corporation's Torrance Refinery and SCE.

Relief Act of 1986 provisions requiring capitalization of interest during construction for income tax purposes.

D. Description Of Southern California Edison Company

SCE is an investor-owned public utility engaged in the business of generating, transmitting, and distributing electric energy in portions of central and southern California. In addition to its properties in California, it owns, in some cases jointly with others, facilities in Nevada, Arizona, and New Mexico, its share of which produces power and energy for the use of its customers in California. In conducting such business, SCE operates an interconnected and integrated electric utility system.

E. Service Territory

SCE's service territory is located in 15 counties in central and southern California, consisting of Fresno, Imperial, Inyo, Kern, Kings, Los Angeles, Madera, Mono, Orange, Riverside, San Bernardino, Tulare, Tuolumne⁶, and Ventura Counties, and includes approximately 179 incorporated communities as well as outlying rural territories. A list of the counties and municipalities served by SCE is attached hereto as Appendix B. SCE also supplies electricity to certain customers for resale under tariffs filed with the Federal Energy Regulatory Commission.

F. Location Of Items Required In A Permit To Construct Pursuant To GO 131-D, Section IX.B

Much of the information required to be included in a PTC application pursuant to GO 131-D, Section IX.B is found in the DPA/DEIS.

⁶ SCE provides electric service to a small number of customer accounts in Tuolumne County and is not subject to franchise requirements.

Required PTC application information has been cross-referenced to the DPA/DEIS in the following text. The PTC application requirements of GO 131-D, Section IX.B are in italics, and the DPA/DEIS references follow in plain text.

- a. *A description of the proposed power line or substation facilities, including the proposed power line route; proposed power line equipment, such as tower design and appearance, heights, conductor sizes, voltages, capacities, substations, switchyards, etc., and a proposed schedule for authorization, construction, and commencement of operation of the facilities.*
 - A description of the Project is found in the Executive Summary, Chapter ES.
 - Substation site A is described and illustrated in Section 2.2.4 (page 2-41) and Figures 2-19 and 2-22. Substation site B is described and illustrated in Section 2.2.4 (Page 2-45) and Figures 2-24 and 2-26.
 - The physical characteristics of Substation A and equipment are described and illustrated in Section 2.2.3 (page 2-23) and Figure 2-12. The physical characteristics of the 500kV segment connection into the Project is described and illustrated in Section 2.2.3 and Figures 2-14 and 2-16.
 - The Project Schedule is attached to this Application as Appendix C.
- b. *A map of the proposed power line routing or substation location showing populated areas, parks, recreational areas, scenic areas, and existing electrical transmission or power lines within 300 feet of the proposed route or substation.*
 - Regional and Project area maps are provided in the DPA/DEIS as Figures 1-1 (pages 1-3) and 1-2 (pages 1-6), respectively.
 - Maps of current land use including designation of parks, recreational, and scenic areas are provided in the DPA/DEIS as Figure 3.9-7.
 - Maps showing the proximity of the proposed subtransmission source lines to existing electrical transmission and power lines are provided in the DPA/DEIS as Figures 3.9-5 and 3.9-7.
- c. *Reasons for adoption of the power line route or substation location selected, including comparison with alternative routes or locations, including the advantages and disadvantages of each.*
 - Reasons for the adoption of the proposed substation site, including comparison with alternative sites, are discussed in the DPA/DEIS in Sections 2.2.5 and 2.2.6 (page 2-62) and 2.2.7 (page 2-63).

d. *A listing of the governmental agencies with which proposed power line route or substation location reviews 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.*

- County of Riverside:

The County of Riverside provided a position statement to SCE indicating their support for the Red Bluff Substation Project. A copy of the County's position statement is in Appendix F.

- Native American Heritage Commission (NAHC):

ECORP Consulting, Inc., the consultants for the Desert Sunlight Solar Farm Project, contacted NAHC on January 29, and March 29, 2010, regarding areas that included the Red Bluff Substation area and received response letters from NAHC on February 1, and April 29, 2010. The NAHC response letters conclude that: "The NAHC [Sacred Lands File] SLF search did not indicate the presence of Native American cultural resources within one-half – mile [radius] of the proposed project site (APE). However, there are Native American cultural resources in close proximity to the APE." The letters go on to say that: "Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway." A copy of the NAHC responses may be found in Appendix F.

Also, please note the following references from the Desert Sunlight Solar Project Draft EIS in relation to the cultural resources:

1. Section 3.6 Cultural Resources, p. 3.6-17
2. Appendix K: Cultural Resources

e. *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 Rule 2.4 [formerly 17.1 and 17.3]. If a PEA is filed, it may include the data described in Items a. through d. above.*

- The relevant documents are referenced above.

G. Compliance With GO 131-D, Section X

GO 131-D, Section X requires applications for a PTC to 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 EMF Field Management Plan for this Project, which is attached as Appendix G to this Application.

H. Compliance With Rule 2.1(c)

In compliance with Rule 2.1(c) of the Commission’s Rules of Practice and Procedure (California Code of Regulations, Title 20), SCE is required to state in this Application “[t]he 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 a hearing will not be necessary. This proceeding involves the Commission’s: (1) environmental review of the Project in compliance with the California Environmental Quality Act (CEQA) (Public Resources Code § 21000 *et seq.*) and the Commission’s GO 131-D; and (2) issuance of a PTC authorizing SCE to construct the Project.

SCE proposes the following schedule for this Application:

Date	Event
August 27, 2010	DSSF Draft PA/EIS Issued
November 17, 2010	PTC Application filed
November 25, 2010	Public Comments to DSSF Draft PA/EIS Due
December 17, 2010	PTC Application accepted as complete
January 2011	Final EIS Issued
February 2011	Proposed Decision and Public Notice stating and confirming satisfaction with CEQA Issued by CPUC
March/April 2011	Commission Final Decision, PTC Issued

I. Statutory Authority

This Application is made pursuant to the provisions of GO 131-D, the Commission’s Rules of Practice and Procedure, and prior orders and resolutions of the Commission.

J. Public Notice

Pursuant to GO 131-D, Section XI.A, notice of this Application shall be given: (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 GO 131-D. A copy of the Notice of Application for a Permit to Construct and the list of newspapers which will publish the notice are contained in Appendix D. A copy of the Certificate of Service of Notice of Application for a Permit to Construct, an agency service list, and the 300-foot property owners list are contained in Appendix E.

K. Supporting Appendices And Attachment

Appendices A through G listed below are made a part of this application:

1. Appendix A: Balance Sheet and Statement of Income as of June 30, 2010
2. Appendix B: List of Counties and Municipalities Served by SCE
3. Appendix C: Red Bluff Substation Project Schedule
4. Appendix D: Notice of Application for a Permit to Construct
List of Newspapers publishing the Notice of Application for a Permit to Construct
5. Appendix E: Certificate of Service of Notice of Application for a Permit to Construct
Agency Service List
300-foot Property Owners list
6. Appendix F: Agency Communications and Public Involvement
7. Appendix G: EMF Field Management Plan

L. Compliance With Rule 2.5

In accordance with Rule 2.5 of the Commission's Rules of Practice and Procedure, SCE is enclosing a deposit to be applied to the costs the Commission incurs to complete the required environmental review pursuant to CEQA.

M. Request For Ex Parte Relief

SCE requests that the relief requested in this Application be provided ex parte as provided for in GO 131-D, Section IX.B.6.

N. Request For Timely Relief

SCE requests the Commission to issue a decision within the time limits prescribed by Government Code Section 65920 et seq. (the Permit Streamlining Act), as provided for in GO 131-D, Section IX.B.6.

V.

CONCLUSION

SCE respectfully requests the Commission to issue a PTC authorizing SCE to construct the Project set forth in this Application and the referenced DPA/DEIS. SCE further requests that the relief be provided ex parte and within the time limits prescribed by the Permit Streamlining Act.

Respectfully submitted,

SOUTHERN CALIFORNIA EDISON COMPANY

/s/Les Starck

By: Les Starck
Vice President

/s/Angela Whatley

By: Angela Whatley
Attorney for
SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-3618
Facsimile: (626) 302-1926

November 17, 2010

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 17th day of November 2010, at Rosemead, California.

/s/Les Starck _____
Les Starck
Vice President
SOUTHERN CALIFORNIA EDISON COMPANY
Telephone: (626) 302-4883

Appendix A

BALANCE SHEET AND STATEMENT OF INCOME

AS OF JUNE 30, 2010

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET

September 30, 2010

A S S E T S

(Unaudited)

(Millions of Dollars)

UTILITY PLANT:

Utility plant, at original cost	\$26,478
Less - Accumulated depreciation	(6,097)
	<hr/>
	20,381
Construction work in progress	3,020
Nuclear fuel, at amortized cost	340
	<hr/>
	23,741
	<hr/>

OTHER PROPERTY AND INVESTMENTS:

Nonutility property - less accumulated depreciation of \$98	69
Nuclear decommissioning trusts	3,347
Other Investments	84
	<hr/>
	3,500
	<hr/>

CURRENT ASSETS:

Cash and equivalents	857
Short-term investments	4
Receivables, less allowances of \$59 for uncollectible accounts	887
Accrued unbilled revenue	612
Inventory	326
Derivative assets	69
Regulatory assets	404
Other current assets	69
	<hr/>
	3,228
	<hr/>

DEFERRED CHARGES:

Regulatory assets	5,227
Derivative assets	192
Other long-term assets	339
	<hr/>
	5,758
	<hr/>
	\$36,227
	<hr/>

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET

September 30, 2010

CAPITALIZATION AND LIABILITIES

(Unaudited)

(Millions of Dollars)

CAPITALIZATION:

Common stock	\$2,168
Additional paid-in capital	566
Accumulated other comprehensive loss	(17)
Retained Earnings	<u>5,496</u>
Common shareholder's equity	8,213
Preferred and preference stock not subject to redemption requirements	920
Long-term debt	<u>7,626</u>
	<u>16,759</u>

CURRENT LIABILITIES:

Accounts payable	1,146
Accrued taxes	150
Accrued interest	98
Customer deposits	224
Derivative liabilities	225
Regulatory liabilities	804
Other current liabilities	<u>513</u>
	<u>3,160</u>

DEFERRED CREDITS:

Deferred income taxes	4,173
Deferred investment tax credits	98
Customer advances	114
Derivative liabilities	1,298
Pensions and benefits	1,757
Asset retirement obligations	3,326
Regulatory liabilities	3,663
Other deferred credits and other long-term liabilities	<u>1,879</u>
	<u>16,308</u>
	<u>\$36,227</u>

SOUTHERN CALIFORNIA EDISON COMPANY

STATEMENT OF INCOME

9 MONTHS ENDED SEPTEMBER 30, 2010

(Unaudited)

(Millions of Dollars)

OPERATING REVENUE	<u>\$7,504</u>
OPERATING EXPENSES:	
Fuel	275
Purchased power	2,337
Operation and maintenance	2,272
Depreciation, decommissioning and amortization	945
Property and other taxes	195
Gain on Sale of assets	(1)
Total operating expenses	<u>6,023</u>
OPERATING INCOME	1,481
Interest income	5
Other income	103
Interest expense - net of amounts capitalized	(315)
Other expenses	(39)
INCOME BEFORE INCOME TAX	<u>1,235</u>
INCOME TAX EXPENSE	<u>338</u>
NET INCOME	897
Less: Dividends on preferred and preference stock not subject to mandatory redemption	<u>39</u>
NET INCOME AVAILABLE FOR COMMON STOCK	<u><u>\$858</u></u>

Appendix B

LIST OF COUNTIES AND MUNICIPALITIES SERVED BY SCE

SOUTHERN CALIFORNIA EDISON COMPANY

Citizens or some of the citizens of the following counties and municipal corporations will or may be affected by the changes in rates proposed herein.

COUNTIES

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

MUNICIPAL CORPORATIONS

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

*SCE provides electric service to a small number of customer accounts in Tuolumne County and is not subject to franchise requirements.

Appendix C

RED BLUFF SUBSTATION PROJECT SCHEDULE

Proposed Red Bluff Substation Project Schedule

<u>Date</u>	<u>Event</u>
August 27, 2010	DSSF Draft PA/EIS Issued
November 17, 2010	PTC Application filed
November 25, 2010	Public Comments to DSSF Draft PA/EIS Due
December 17, 2010	PTC Application accepted as complete.
January 2011	Final EIS Issued
February 2011	Proposed Decision and Public Notice stating and confirming satisfaction with CEQA Issued by CPUC
March/April 2011	Commission Final Decision, PTC Issued
Second Quarter 2011	Pre-Construction Activities Requiring Ground Disturbance
Third Quarter 2011	Commence construction
Third Quarter 2013	Construction complete
Third Quarter 2013	Commence operation

Appendix D

NOTICE OF APPLICATION FOR A PERMIT TO CONSTRUCT

NOTICE OF APPLICATION FOR A PERMIT TO CONSTRUCT

RED BLUFF SUBSTATION PROJECT

Date: November 17, 2010

Proposed Project: Southern California Edison (SCE) has filed an application with the California Public Utilities Commission (CPUC) for a Permit to Construct (PTC) for the proposed Red Bluff Substation Project (Proposed Project). The Proposed Project will facilitate the interconnection of renewable generation development projects in the Desert Center area of the Mohave Desert to SCE's existing Devers-Palo Verde (DPV) Transmission Line (T/L) and will create the Colorado River - Red Bluff Nos. 1 & 2 and Devers - Red Bluff Nos. 1 & 2 500 kilovolt (kV) T/Ls. The Project would include the following electrical components:

1. **Red Bluff Substation:** Construct a new 500/220 kV substation enclosing approximately 75 acres of land.
2. **Transmission Lines:** Loop the existing DPV 500 kV T/L (referred to as DPV#1 in the DPV2 CPCN) into the Red Bluff Substation by adding a total of approximately 5,000 to 7,000 feet of new T/L segments (two parallel lines ranging between 2,500 to 3,500 feet long each within a corridor approximately 1,000 feet wide), creating the Colorado River-Red Bluff No.1 and Devers-Red Bluff No.1 500 kV T/Ls.
3. **Transmission Lines:** Loop the proposed Devers-Colorado River (DCR) 500 kV T/L (referred to as DPV2 in the DPV2 CPCN) into the Red Bluff Substation by adding a total of approximately 5,000 to 7,000 feet of new T/L segments (two parallel lines ranging between 2,500 to 3,500 feet long each within a corridor approximately 1,000 feet wide), creating the Colorado River-Red Bluff No.2 and Devers-Red Bluff No.2 500 kV T/Ls.
4. **Generation Tie Line Connections:** Connect the customer-constructed and owned 220kV generation tie lines (gen-ties) into the Red Bluff Substation.
5. **Modification of existing 220 kV structures:** The necessary crossing of the existing Florida Power & Light (FPL) Buck-Julian Hinds 220 kV T/L by the proposed SCE 500 kV loop-in lines may require modifications. New tubular steel poles (TSPs) (subject to final engineering) to modify the construction at the crossing location may be needed to replace or supplement the existing poles.
6. **Distribution Line for Substation Light and Power:** Rebuild the Desert Center 12 kV circuit overhead along the south frontage of the I-10 freeway for approximately 20,000 feet to upgrade the circuit from single-phase to three-phase construction and then construct a new line extension for approximately 1,000 feet underground (south) into the substation. This rebuild would require approximately 100 poles to be replaced, assuming an average span of 200 feet.
7. **Telecommunications Facilities:** Install optical ground wire (OPGW) from the last customer owned structure supporting the customer proposed renewable projects' generation tie-lines to the Red Bluff Substation to complete the required telecommunication path and connect to associated equipment installed inside both the proposed Red Bluff Substation and the proposed solar projects' substations. Install a new microwave repeater station near the Desert Center airport, consisting of a new 12 foot by 36 foot communications room and associated equipment, along with a 185 foot tall lattice steel communications tower and two (2) 10 foot diameter microwave antennas. Install an additional 100' microwave tower and one (1) 10 foot diameter microwave antenna at SCE's existing Chuckwalla Mountain Communications Site.

Construction of the Proposed Project is expected to start in the third quarter of 2011 and would proceed for approximately two years. The projected substation operating date is in the third quarter of 2013.

Environmental Assessment: The Proposed Project has been evaluated as a portion of the Desert Sunlight Solar Farm (DSSF) Draft Plan Amendment/Environmental Impact Statement (DPA/DEIS) issued on August 27, 2010 by Bureau of Land Management (BLM). The CPUC and BLM have signed an MOU that defines the relationship of the two agencies, and identifies the CPUC as a cooperating agency with the BLM as the lead agency for preparation of the EIS. The DPA/DEIS may be found on the BLM's website.

The DPA/DEIS includes analysis of potential environmental impacts that could be created by the construction and operation of the Proposed Project. The DPA/DEIS concludes that all potential environmental impacts associated with the Proposed Project are either not significant or would be mitigated to less than significant levels through the implementation of mitigation measures.

EMF Compliance: The CPUC requires utilities to employ "no-cost" and "low-cost" measures to reduce public exposure to electric and magnetic fields (EMF). In accordance with "EMF Design Guidelines" filed with the CPUC in compliance with CPUC Decisions 93-11-013 and 06-01-042, SCE would implement the following measure(s) for the proposed project:

1. Placing major substation electrical equipment (such as transformers, switchracks, buses and underground duct banks) away from the substation property lines.
2. Arranging conductors of proposed T/L segments for magnetic field reduction along adjacent transmission corridors.

Public Review Process: SCE has filed an application with the CPUC for a PTC for the Proposed Project. Pursuant to the CPUC Rules of Practice and Procedure, any affected party, within 30 days of the date on this notice (no later than **December 17, 2010**) may protest, and request that the CPUC hold hearings on the application. If the CPUC, as a result of its investigation determines that public hearings should be held, notice shall be sent to each person or entity entitled to notice or who has requested a hearing.

All protests must be mailed to the CPUC and SCE concurrently and should include the following:

1. Your name, mailing address, and daytime telephone number.
2. Reference to the Proposed Project Name identified above.
3. A clear and concise description of the reason for the protest.

Protest for this Application must be mailed WITHIN 30 CALENDAR DAYS to:

California Public Utilities Commission	<u>AND</u>	Southern California Edison Co. Law Dept. - Exception Mail	<u>AND</u>	California Public Utilities Commission
Docket Office, Room 2001		2244 Walnut Grove Avenue		Director, Energy Division
505 Van Ness Avenue 4 th Floor		Rosemead, CA 91770		505 Van Ness Avenue, 4 th Floor
San Francisco, CA 94102		Attention: Y. Leon		San Francisco, CA 94102

For assistance in filing a protest, please call the CPUC's Public Advisor in San Francisco at (415) 703-2074 or in Los Angeles at (213) 576-7055.

Additional Project Information: To review a copy of SCE's Application, or to request further information, please visit SCE's project website at www.sce.com/redbluff or contact:

Louis Davis
Region Manager
Southern California Edison
24487 Prielipp Road
Wildomar, CA 92595
Phone: (951) 249-8468
louis.davis@sce.com

**LIST OF NEWSPAPERS
PUBLISHING THE NOTICE FOR A
PERMIT TO CONSTRUCT**

The Press-Enterprise
3450 Fourteenth Street
Riverside, CA 92501

The Desert Sun
750 North Gene Autry Trail
Palm Springs, California 92262

Palo Verde Valley Times
153 S. Broadway
Blythe, CA 92225

Appendix E

CERTIFICATE OF SERVICE OF NOTICE OF APPLICATION

FOR A PERMIT TO CONSTRUCT

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-338-3) FOR A PERMIT TO CONSTRUCT ELECTRICAL FACILITIES: RED BLUFF SUBSTATION PROJECT** on all parties identified on the attached service list(s). Service was effected by one or more means indicated below:

Placing copies in properly addressed sealed envelopes and depositing such copies in the United States mail with first-class postage prepaid to all parties.

Executed this 17th day of November 2010, at Rosemead, California.

/s/Melissa Schary
Project Analyst
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770

**RED BLUFF SUBSTATION PROJECT
AGENCY SERVICE LIST**

Supervisor Marion Ashley Chairman, Board of Supervisors County of Riverside Administrative Center 4080 Lemon Street Riverside, CA 92501	Ms. Carolyn Syms Luna Planning Director County of Riverside Administrative Center 4080 Lemon Street Riverside, CA 92501	Mr. Bill Luna County Executive Officer County of Riverside Administrative Center 4080 Lemon Street Riverside, CA 92501
Ms. Chantell Griffin Planning Commission Secretary County of Riverside Administrative Center 4080 Lemon Street, 9th Floor P.O. Box 1409	Docket Clerk California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102	Karen Clopton, Chief ALJ California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102
California Energy Commission Melissa Jones, Executive Director 1516 Ninth Street Sacramento, CA 95814-5512	Department of Transportation Division of Aeronautics, MS # 40 Gary Cathey, Chief P. O. Box 942874 Sacramento, CA 94274-0001	California Natural Resources Agency Lester A. Snow, Secretary 1416 Ninth St., Suite 1311 Sacramento, CA 95814
California Department of Transportation Cindy McKim, Director PO Box 942873 Sacramento, CA 94273-0001	Department of Health Care Services David Maxwell-Jolly, Director 1501 Capitol Ave. Sacramento, CA 94234-7320	State Water Resources Control Board Tom Howard, Executive Director 1001 "I" Street Sacramento, CA 95814
California Department of Fish and Game John McCamman, Director 1416 Ninth Street, 12th Floor Sacramento, CA 95814	South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765	California Department of Transportation District 8 Dr. Raymond W. Wolfe, Director 464 W. 4 th Street San Bernardino, CA 92401
California Air Resources Board Attn: Stationary Source 1001 "I" Street PO Box 2815 Sacramento, CA 95812	California Regional Water Quality Control Board Colorado River Basin Region 7 73-720 Fred Waring Dr., Suite 100 Palm Desert, CA 92260	Bureau of Land Management Palm Springs South Coast Field Office John Kalish, Field Manager 1201 Bird Center Drive Palm Springs, CA 92262

**PROPOSED RED BLUFF SUBSTATION
300-Foot Property Owners Information**

APN FORMAT	MAILING CITY/STATE	MAILING ZIP	SITUS ADDRESS	SITUS CITY/STATE	SITUS ZIP	SITUS COUNTY
808-113-003	SANTA ROSA, CA	95404	N/A	N/A	N/A	RIVERSIDE
811-122-005	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
808-105-001	SANTA ROSA, CA	95404	N/A	N/A	N/A	RIVERSIDE
808-112-006	SAN DIEGO, CA	92101	43025 AZTEC AVE	ANZA	92539	RIVERSIDE
808-112-004	SANTA ROSA, CA	95404	N/A	N/A	N/A	RIVERSIDE
811-240-005	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
810-181-002	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
811-221-001	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
808-113-001	SANTA ROSA, CA	95404	N/A	N/A	N/A	RIVERSIDE
811-240-006	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
811-142-005	WESTMINSTER, CA	92683	25250 RICE RD	DESERT CENTER	92239	RIVERSIDE
810-181-001	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
810-181-003	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
811-232-003	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
808-112-007	SAN DIEGO, CA	92101	N/A	N/A	N/A	RIVERSIDE
808-113-002	KEIZER, OR	97303	N/A	N/A	N/A	RIVERSIDE
808-112-005	SAN DIEGO, CA	92101	43035 AZTEC AVE	DESERT CENTER	92239	RIVERSIDE
811-190-014	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
811-212-002	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
811-202-001	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
811-221-002	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
811-212-001	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
811-202-002	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
808-102-004	SANTA ROSA, CA	95404	N/A	N/A	N/A	RIVERSIDE
811-122-001	CHINO, CA	91709	N/A	N/A	N/A	RIVERSIDE
808-092-005	SANTA ROSA, CA	95404	N/A	N/A	N/A	RIVERSIDE
808-122-004	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
808-121-002	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
810-182-002	WASHINGTON, DC	21401	N/A	N/A	N/A	RIVERSIDE
811-142-006	CANYON LAKE, CA	92587	N/A	N/A	N/A	RIVERSIDE
808-111-005	KEIZER, OR	97303	N/A	N/A	N/A	RIVERSIDE
808-111-006	SANTA ROSA, CA	95404	N/A	N/A	N/A	RIVERSIDE

Appendix F

AGENCY COMMUNICATIONS AND PUBLIC INVOLVEMENT

County of Riverside

RIVERSIDE OFFICE:
4080 Lemon Street, 5th Floor
Riverside, CA 92502-1647
(951) 955-1040
Fax (951) 955-2194



DISTRICT OFFICE/MAILING ADDRESS:
73-710 Fred Waring Drive, Suite 222
Palm Desert, CA 92260-2574
(760) 863-8211
Fax (760) 863-8905

SUPERVISOR JOHN J. BENOIT FOURTH DISTRICT

Oct. 28, 2010

Mr. Louis Davis
Region Manager
Southern California Edison
244887 Prielipp Drive
Wildomar, CA 92595

Subject: Support for Red Bluff Substation and Colorado River Substation Expansion Projects

Dear Mr. Davis:

I appreciate the briefing you provided regarding Southern California Edison's (SCE) proposed Red Bluff Substation and Colorado River Substation (Devers-Palo Verde No. 2) Expansion projects. As outlined in your briefing, these new electrical facilities will allow major solar projects in eastern Riverside County to interconnect and deliver clean electricity to the power grid.

As Supervisor for Riverside County's Fourth District, representing the eastern two-thirds of Riverside County, I wholeheartedly support these projects. The Fourth District is a prime spot for renewable energy projects, several of which are making significant advances in the permitting process as fast-track projects.

Renewable energy infrastructure and economic development are vitally needed. These projects will position Riverside County and SCE in meeting its renewable energy goals. They will also provide a boost to our local economy, providing much needed construction jobs and other economic benefits.

Thank you for your efforts to keep my office informed on these projects and their status. I appreciate SCE's efforts to help lead the nation toward a brighter, cleaner future.

Sincerely,

JOHN J. BENOIT
Fourth District Supervisor

JJB:das

STATE OF CALIFORNIA

Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 354
 SACRAMENTO, CA 95814
 (916) 653-6251
 Fax (916) 657-5390
 Web Site www.nahc.ca.gov
de_nahc@pacbell.net



February 1, 2010

Ms. Evelyn N. Chandler, Cultural Resources Manager

ECORP Consulting, Inc.

215 North 5th Street
 Redlands, CA 92374

Sent by FAX to: 909-307-0056

No. of Pages: 4

Re: Request for a Sacred Lands File Search and Native American Contacts List for a Proposed "Sunlight Solar Farm Project," located near the Community of Desert Center in eastern Riverside County, California

Dear Ms. Chandler:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources (c.f. CA Public Resources Code §21070; also c.f. *Environmental Protection Information Center v. Johnson* (1985) 170 Cal App. 3rd 604), was able to perform a record search of its Sacred Lands File (SLF) for the affected project area (APE) requested. The California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the 2007 CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance." The NAHC SLF search did not indicate the presence of Native American cultural resources within one-half - mile radius of the proposed project site (APE). However, there are Native American cultural resources in close proximity to the APE.

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation Coordinator's office (at (916) 653-7278, for referral to the nearest Information Center of which there are 10.

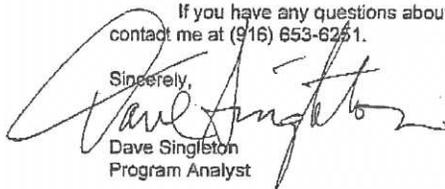
Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f] *et seq*), 36 CFR Part 800.3 (f) (2), the President's Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq*) and NAGPRA (25 U.S.C. 3001-3013), as appropriate. .

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'. Discussion of these should be included in your environmental documents, as appropriate.

The response to this search for Native American cultural resources is conducted in the NAMC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §5254.10) although Native Americans on the attached contact list may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of 'historic properties of religious and cultural significance' may also be protected under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,



Dave Singleton
Program Analyst

Attachment: Native American Contacts List (NOTE: we further recommend that other forms of 'proof of mailing or proof of contact be utilized instead of 'Return Receipt Requested' Certified or Registered Mail.) Further, we suggest a follow-up telephone call to the contacts if the replies are not received or need clarification.

Native American Contacts
Riverside County
February 1, 2010

Cabazon Band of Mission Indians
David Roosevelt, Chairperson
84-245 Indio Springs Cahuilla
Indio , CA 92203-3499
(760) 342-2593
(760) 347-7880 Fax

Chemehuevi Reservation
Charles Wood, Chairperson
P.O. Box 1976 Chemehuevi
Chemehuevi Valley CA 92363
chemehuevit@yahoo.com
(760) 858-4301
(760) 858-5400 Fax

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Fort Mojave Indian Tribe
Tim Williams, Chairperson
500 Merriman Ave Mojave
Needles , CA 92363
(760) 629-4591
(760) 629-5767 Fax

Twenty-Nine Palms Band of Mission Indians
Darrell Mike, Chairperson
46-200 Harrison Place Chemehuevi
Coachella , CA 92236
tribal-epa@worldnet.att.net
(760) 775-5566
(760) 775-4639 Fax

Colorado River Reservation
Michael Tsosie, Cultural Contact
Route 1, Box 23-B Mojave
Parker , AZ 85344 Chemehuevi
symi@rraz.net
(928) 669-9211
(928) 669-5675 Fax

Joseph R. Benitez (Mike)
P.O. Box 1829 Chemehuevi
Indio , CA 92201
(760) 408-4089 - cell
(760) 347-0488

AhaMaKav Cultural Society, Fort Mojave Indian
Linda Otero, Director
P.O. Box 5990 Mojave
Mohave Valley AZ 86440
lindaotero@fortmojave.com
(928) 768-4475
(928) 768-7996 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106, and federal NAGPRA.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Sunlight Solar Farm; located near Desert Center in eastern Riverside County, California for which a Sacred Lands File search and Native American Contacts list were requested.

Native American Contacts
Riverside County
February 1, 2010

Morongo Band of Mission Indians
Michael Contreras, Cultural Heritage Prog.
12700 Pumarra Road Cahuilla
Banning, CA 92220 Serrano
mcontreras@morongo-nsn.
(951) 755-5025
(951)201-1866 - cell
(951) 922-0105 Fax

Quechan Indian Nation
Bridget Nash-Chrabasz, THPO
P.O. Box 1899 Quechan
Yuma, AZ 85366
b.nash@quechantribe.com
(928) 920-6068 - CELL
(760) 572-2423

Torres-Martinez Desert Cahuilla Indians
Diana L. Chihuahua, Cultural Resources
P.O. Box 1160 Cahuilla
Thermal, CA 92274
dianac@torresmartinez.org
760) 397-0300, Ext. 1209
(760) 272-9039 - cell (Lisa)
(760) 397-8146 Fax

Cahuilla Band of Indians
Luther Salgado, Sr.
PO Box 391760 Cahuilla
Anza, CA 92539
tribalcouncil@cahuilla.net
915-763-5549

Agua Caliente Band of Cahuilla Indians THPO
Patricia Tuck, Tribal Historic Perservation Officer
5401 Dinah Shore Drive Cahuilla
Palm Springs, CA 92264
ptuck@aguacaliente-nsn.gov

(760) 699-6907
(760) 699-6924- Fax

Augustine Band of Cahuilla Mission Indians
Karen Kupcha
P.O. Box 846 Cahuilla
Coachella, CA 92236
(760) 369-7171
916-369-7161

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106, and federal NAGPRA.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Sunlight Solar Farm, located near Desert Center in eastern Riverside County, California for which a Sacred Lands File search and Native American Contacts list were requested.

STATE OF CALIFORNIA

Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION

615 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
de_nahc@pacbell.net



April 29, 2010

Ms. Evelyn Chandler, Cultural Resources Manager

ECORP CONSULTING, INC.

412 East State Street
Redlands, CA 92373

Sent by FAX to: 909-307-0056

No. Pages: 4

Re: Request for a Sacred Lands File Search and Native American Contacts List for the proposed "Desert Sunlight Solar Farm Project"; located near Desert Center, Riverside County, California

Dear Ms. Chandler:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources (c.f. CA Public Resources Code §21070; also c.f. *Environmental Protection Information Center v. Johnson* [1981] 170 Cal App. 3rd 604), was able to perform a record search of its Sacred Lands File (SLF) for the affected project area (APE) requested. The California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the 2007 CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance." The NAHC SLF search did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site (APE). However, there are several Native American cultural resources in close proximity to the APE.

Also, this letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Culturally-affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation Coordinator's office (at (916) 653-7278, for referral to the nearest Information Center of which there are 10.

Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f] *et seq.*), 36 CFR Part 800.3 (f) (2), the President's Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq.*) and NAGPRA (25 U.S.C. 3001-3013), as appropriate. The 1992 Secretary of the Interior's Standards for the Treatment of Historic Properties were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including *cultural landscapes*.

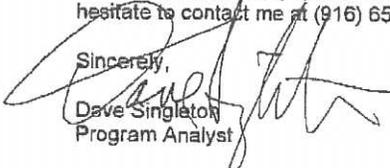
Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery.

Although tribal consultation under the California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177) is 'advisory' rather than mandated, the NAHC does request 'lead agencies' to work with tribes and interested Native American individuals as 'consulting parties.' However, the 2006 SB 1059 the state enabling legislation to the Federal Energy Policy Act of 2005, does mandate tribal consultation for the 'electric transmission corridors. This is codified in the California Public Resources Code, Chapter 4.3, and §25330 to Division 15, requires consultation with California Native American tribes, and identifies both federally recognized and non-federally recognized on a list maintained by the NAHC. Consultation on specific projects must be the result of an on-going relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

The response to this search for Native American cultural resources is conducted in the NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10) although Native Americans on the attached contact list may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance" may also be protected the under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,


Dave Singleton
Program Analyst

Attachment: Native American Contacts

Native American Contacts
April 30, 2010
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This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA.

TSan Juan Capistrano Town Center (Number 1859); located in the City of San Juan Capistrano; Orange County, California for Desert Sunlight Solar Farm Project; located near Desert Center, 60 miles west of the City of Blythe; Riverside County, California for which a Sacred Lands File search and Native American Contacts list were requested.

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This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 105 and federal NAGPRA.

TSan Juan Capistrano Town Center (Number 1958); located in the City of San Juan Capistrano; Orange County, California for Desert Sunlight Solar Farm Project; located near Desert Center, 50 miles west of the City of Blythe; Riverside County, California for which a Sacred Lands File search and Native American Contacts list were requested.

PUBLIC INVOLVEMENT

SCE encourages communication and outreach to local communities, local businesses, elected and appointed officials, and other interested parties. SCE's goal is to ensure that it understands and addresses, where possible, issues of interest or potential concern regarding its proposed projects.

Below is a detailed description of the public involvement activities that SCE conducted for the project.

Stakeholder Briefings

SCE project team members provided briefings to elected and appointed officials, and staff for Riverside County, California, including a briefing to Riverside County Supervisor John Benoit and his staff. SCE project team members also provided briefings and/or presentations to the Coachella Valley Association of Governments, Coachella Valley Economic Partnership, and local environmental groups.

First Solar Open House

SCE project team members participated in a community open house hosted by First Solar for the Desert Sunlight Solar Farm Project (DSSF) on January 11, 2010 from 3:00 to 5:00 pm at the Community Service Area #51 Hall in the Lake Tamarisk community. SCE project team members provided information on Red Bluff Substation, answered questions, and received input from the public.

BLM Public Meetings

SCE project team members participated in the BLM Scoping Meeting for the DSSF Project on January 28, 2010 at the University of Riverside Palm Desert Graduate Center in Palm Desert. SCE project team members provided a presentation and hosted a booth during the breakout session to provide information on Red Bluff Substation and answer questions.

SCE project team members also participated in the BLM public comment meetings for the Draft Environmental Impact Statement (EIS) on the DSSF Project. The meetings were held at the Community Service Area #51 Hall in the Lake Tamarisk community on October 20, 2010, at the University of Riverside Palm Desert Graduate Center in Palm Desert on October 21, 2010, and at the Joshua Tree Community Center in Joshua Tree on November 4, 2010. SCE project team members provided a presentation and hosted a booth during the breakout session to provide information on Red Bluff Substation and answer questions.

Project Website

SCE created a Project Website (www.sce.com/redbluff). The website provides current information about the project and links to documents such as the BLM's Draft EIS for the Desert Sunlight Solar Farm Project.

Appendix G
FIELD MANAGEMENT PLAN
FOR RED BLUFF SUBSTATION PROJECT

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List of Terms

ACSR	Aluminum Conductor Steel Reinforced
CDHS	California Department of Health Services
CPCN	Certificate of Public Convenience and Necessity
CPUC	California Public Utilities Commission
DCR	Devers-Colorado River
DPV	Devers Palo Verde
ELF	Extremely Low Frequency
EMF	electric and magnetic fields
FMP	field management plan
FPL	Florida Power & Light
gen-tie	generation tie line
GO	General Order
IARC	International Agency for Research on Cancer
kV	kilovolt
kVA	kilovolt-ampere
LWS	light weight steel
mG	milliGauss
MVA	megavolt-ampere
NIEHS	National Institute of Environmental Health Sciences
NRPB	National Radiation Protection Board
RAPID	Research and Public Information Dissemination
ROW	right-of-way
SCE	Southern California Edison Company
T/L	transmission line
TSP	tubular steel pole
VAR	volt ampere reactive
WHO	World Health Organization

EXECUTIVE SUMMARY

This document is Southern California Edison Company's (SCE) Field Management Plan (FMP) for the proposed Red Bluff Substation Project (Proposed Project). SCE proposes to construct the Red Bluff Substation near Desert Center in Riverside County, California to allow for interconnection of generation development projects in the Desert Center area of the Mohave Desert to SCE's existing Devers-Palo Verde (DPV) Transmission Line (T/L) and creating the Colorado River - Red Bluff and Devers - Red Bluff 500 kilovolt (kV) T/Ls. The proposed substation would include the following electrical components:

1. **Red Bluff Substation:** Construct a new 500/220 kV substation enclosing approximately 75 acres of land.
2. **Transmission Lines:** Loop the existing DPV 500 kV T/L (referred to as DPV#1 in the DPV2 CPCN) into the Red Bluff Substation by adding a total of approximately 5,000 to 7,000 feet of new T/L segments (two parallel lines ranging between 2,500 to 3,500 feet long each within a corridor approximately 1,000 feet wide), creating the Colorado River-Red Bluff No.1 and Devers-Red Bluff No.1 500 kV T/Ls.
3. **Transmission Lines:** Loop the proposed Devers-Colorado River (DCR) 500 kV T/L (referred to as DPV2 in the DPV2 CPCN) into the Red Bluff Substation by adding a total of approximately 5,000 to 7,000 feet of new T/L segments (two parallel lines ranging between 2,500 to 3,500 feet long each within a corridor approximately 1,000 feet wide), creating the Colorado River-Red Bluff No.2 and Devers-Red Bluff No.2 500 kV T/Ls.

4. **Generation Tie Line Connections:** Connect the customer-constructed and owned 220kV generation tie lines (gen-ties) into the Red Bluff Substation.
5. **Modification of existing 220 kV structures:** The necessary crossing of the existing Florida Power & Light (FPL) Buck-Julian Hinds 220 kV T/L by the proposed SCE 500 kV loop-in lines may require modifications. New tubular steel poles (TSPs) (details to be determined during detailed engineering phase) to modify the construction at the crossing location may be needed to replace or supplement the existing poles.
6. **Distribution Line for Substation Light and Power:** Rebuild the Desert Center 12 kV circuit overhead along the south frontage of the I-10 freeway for approximately 20,000 feet to upgrade the circuit from single-phase to three-phase construction and then construct a new line extension for approximately 1,000 feet underground (south) into the substation. This rebuild would require approximately 100 poles to be replaced, assuming an average span of 200 feet.

Construction of the Proposed Project is expected to start in the third quarter of 2011 and would proceed for approximately two years. The projected substation operating date is in the third quarter of 2013.

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 this project, and SCE’s proposed plan to apply these design options to this project. 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)⁷ 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 Proposed Project are as follows:

- Placing major substation electrical equipment (such as transformers, switchracks, buses and underground duct banks) away from the substation property lines
- Arranging conductors of proposed T/L segments for magnetic field reduction along adjacent transmission corridors

Table 1 on page 8 summarizes “no-cost and low-cost” magnetic field reduction design options that SCE considered for the Proposed Project.

SCE's plan for applying the above “no-cost and low-cost” magnetic field reduction design options for the Proposed Project is consistent with CPUC's EMF policy and with the direction of leading national and international health agencies. Furthermore, the plan complies with SCE's EMF Design Guidelines⁸, and with applicable national and state safety standards for new electrical facilities.

⁷ The extremely low frequency is defined as the frequency range from 3 Hz to 3,000 Hz.

⁸ EMF Design Guidelines, August 2006.

Table 1. Summary of “No-cost and Low-cost” Magnetic Field Reduction Design Options

Area No.	Location²	Adjacent Land Use¹⁰	MF Reduction Design Options Considered	Estimated Cost to Adopt	Design Option(s) Adopted? (Yes/No)	Reason(s) if not adopted
Red Bluff Substation	Located approximately 5 miles east of California State Highway 177, south of Interstate 10, in the County of Riverside. The substation will be constructed on federal land.	6	<ul style="list-style-type: none"> Placing major substation electrical equipment (such as transformers, switchracks, buses and underground duct banks) away from the substation property lines. 	<ul style="list-style-type: none"> No-Cost 	<ul style="list-style-type: none"> Yes 	
Red Bluff Loop-In Transmission Line Segments	South-east portion of Red Bluff Substation to the DPV2 T/Ls	6	<ul style="list-style-type: none"> Arranging conductors of proposed T/L segments for magnetic field reduction along adjacent transmission corridors 	<ul style="list-style-type: none"> Low-Cost 	<ul style="list-style-type: none"> Yes 	

² This column shows the major cross streets, existing transmission or subtransmission lines, or substation name as reference points.

¹⁰ Land usage codes are as follows: 1) schools, licensed day-cares, and hospitals, 2) residential, 3) commercial/industrial, 4) recreational, 5) agricultural, and 6) undeveloped land.

BACKGROUND REGARDING EMF AND PUBLIC HEALTH RESEARCH ON EMF

There are many sources of power frequency¹¹ 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.¹²

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) 1999¹³, the National Radiation Protection Board (NRPB) 2001¹⁴, the International Commission on non-Ionizing Radiation Protection (ICNIRP) 2001, the California Department of Health Services (CDHS) 2002¹⁵, the International

¹¹ In U.S., it is 60 Hertz (Hz).

¹² CPUC Decision 06-01-042, p. 6, footnote 10

¹³ 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.

¹⁴ National Radiological Protection Board, Electromagnetic Fields and the Risk of Cancer, Report of an Advisory Group on Non-ionizing Radiation, Chilton, U.K. 2001

¹⁵ 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.

Agency for Research on Cancer (IARC) 2002¹⁶ and the World Health Organization (WHO) 2007¹⁷.

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.”¹⁸
- “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.”¹⁹
- “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.”²⁰

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

¹⁶ 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, IARC Press, Lyon, France: International Agency for Research on Cancer, Monograph, vol. 80, p. 338, 2002

¹⁷ WHO, Environmental Health Criteria 238, EXTREMELY LOW FREQUENCY FIELDS, p. 11 - 13, 2007

¹⁸ 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

¹⁹ *ibid.*, p. iii

²⁰ *ibid.*, p. 37 - 38

small risk of childhood leukemia associated with exposures to unusually high levels of power frequency magnetic fields.”²¹

In 2002, three scientists for CDHS concluded:

“To one degree or another, all three of the [C]DHS 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, or

For adult leukemia, two of the scientists are ‘close to the dividing line between believing or not believing’ and one was ‘prone to believe’ that EMFs cause some degree of increased risk.”²²

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

“ELF magnetic fields are possibly carcinogenic to humans”²³, 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) 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.”²⁴

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:

²¹ NRPB, NRPB Advisory Group on Non-ionizing Radiation Power Frequency Electromagnetic Fields and the Risk of Cancer, NRPB Press Release May 2001

²² 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

²³ IARC, Monographs, Part I, Vol. 80, p. 338

²⁴ *ibid.*, p. 332 - 334

“Scientific evidence suggesting that everyday, chronic low-intensity (above 0.3-0.4 μ T [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 leukaemia.”²⁵

“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.”²⁶

“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”²⁷

“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 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.”²⁸

APPLICATION OF THE CPUC’S “NO-COST AND LOW-COST” EMF POLICY TO THIS 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

²⁵ WHO, Environmental Health Criteria 238, EXTREMELY LOW FREQUENCY FIELDS, p. 11 - 13, 2007

²⁶ *ibid.*, p. 12

²⁷ *ibid.*, p. 12

²⁸ *ibid.*, p. 13

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,²⁹ and the policy direction that (1) use of numeric exposure limits was not appropriate in setting utility design guidelines to address EMF,³⁰ 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.³¹

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 transmission line and transmission substation projects. SCE filed its revised EMF Design Guidelines with the CPUC on July 26, 2006.

²⁹ CPUC Decision 06-01-042, Conclusion of Law 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.”).

³⁰ 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.”).

³¹ CPUC Decision 06-01-042, Conclusion of Law No. 2, (“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.”).

“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:

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:
 - 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 ROW [right-of-way]...”³²

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

³² CPUC Decision 06-01-042, p. 10

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.”³³

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.”³⁴ 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. 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.

³³ CPUC Decision 93-11-013, § 3.3.2, p.10.

³⁴ CPUC Decision 06-01-042, p. 10

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 transmission line construction methods, but does not measure actual environmental magnetic fields.”³⁵

PROJECT DESCRIPTION

Southern California Edison (SCE) proposes to construct the Red Bluff Substation Project (Project) near Desert Center in Riverside County, California (Eastern Site on Figure 1) to allow for interconnection of generation development projects in the Desert Center area of the Mohave Desert to SCE's existing Devers - Palo Verde (DPV) Transmission Line (T/L) and creating the Colorado River - Red Bluff and Devers - Red Bluff 500 kV T/Ls.

This project description is based on planning level assumptions. Exact details would be determined following completion of preliminary and final engineering, identification of field

conditions, availability of labor, material, and equipment, and compliance with applicable environmental and permitting requirements.

The following is a summary of the Red Bluff Project electrical components:

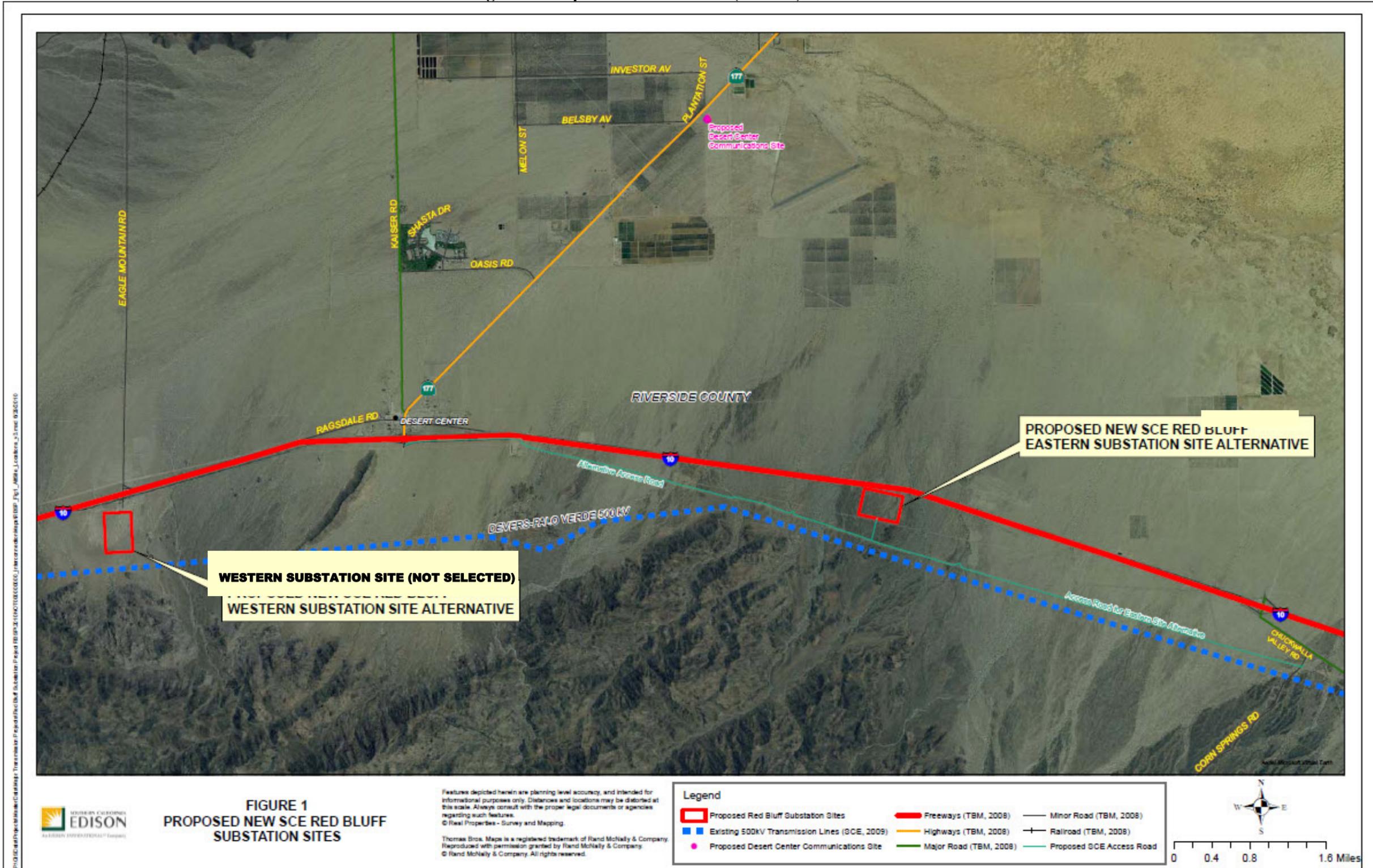
- **Red Bluff Substation:** Construct a new 500/220 kV substation enclosing approximately 75 acres of land.
- **Transmission Lines:** Loop the existing DPV 500 kV T/L (referred to as DPV#1 in the DPV2 CPCN) into the Red Bluff Substation by adding a total of approximately 5,000 to 7,000 feet of new T/L segments (two parallel lines ranging between 2,500 to 3,500 feet long each within a corridor approximately 1,000 feet wide), creating the Colorado River-Red Bluff No.1 and Devers-Red Bluff No.1 500 kV T/Ls.
- **Transmission Lines:** Loop the proposed Devers-Colorado River (DCR) 500 kV T/L (referred to as DPV2 in the DPV2 CPCN) into the Red Bluff Substation by adding a total of approximately 5,000 to 7,000 feet of new T/L segments (two parallel lines ranging between 2,500 to 3,500 feet long each within a corridor approximately 1,000 feet wide), creating the Colorado River-Red Bluff No.2 and Devers-Red Bluff No.2 500 kV T/Ls.
- **Generation Tie Line Connections:** Connect the customer-constructed and owned 220kV generation tie lines (gen-ties) into the Red Bluff Substation.
- **Modification of existing 220 kV structures:** The necessary crossing of the existing Florida Power & Light (FPL) Buck-Julian Hinds 220 kV T/L by the proposed SCE 500 kV loop-in lines may require modifications. New tubular steel poles (TSPs) (details to be

Continued from the previous page
³⁵ CPUC Decision 06-01-042, p. 11

determined during detailed engineering phase) to modify the construction at the crossing location may be needed to replace or supplement the existing poles.

- **Distribution Line for Substation Light and Power:** Rebuild the Desert Center 12 kV circuit overhead along the south frontage of the I-10 freeway for approximately 20,000 feet to upgrade the circuit from single-phase to three-phase construction and then construct a new line extension for approximately 1,000 feet underground (south) into the substation. This rebuild would require approximately 100 poles to be replaced, assuming an average span of 200 feet.

Figure 1. Proposed SCE Red Bluff (Eastern) Substation



Site

The proposed Red Bluff Substation would be connected to the existing DPV (No.1) 500 kV transmission source line via a loop-in line. The loop-in line would dissect the existing line and change it into two line segments: The Colorado River-Red Bluff No. 1 and the Devers-Red Bluff No.1 500 kV T/Ls. In addition, the proposed Red Bluff Substation would be connected to the approved DCR 500 kV T/L (referred to as DPV2 in the DPV2 CPCN) via another loop-in line (two line segments). The loop-in line would create Colorado River - Red Bluff No.2 and Devers - Red Bluff No.2 500 kV T/Ls. The new piece of each line segment into the Red Bluff Substation would be ranging between 2,500 and 3,500 feet long.

The new 500 kV T/L segments would each be constructed using approximately four transmission structures - two of which are expected to be single-circuit lattice steel tower (LST) or tubular steel pole (TSP) and two of which are expected to be modified double-circuit LSTs.

The 500 kV double-circuit structures would be utilized just outside of the substation wall (but within the SCE-controlled Red Bluff Substation Site). The purpose of the double-circuit tower is two-fold in that it requires a smaller 'footprint' in the substation vicinity, and it places the conductors in a vertical arrangement facilitating proper phasing at the substation racks. To achieve this, these towers would be approximately 40 feet taller than the single circuit towers. The conductor utilized would be 2B-2156 kcmil "Bluebird" Aluminum Conductor Steel Reinforced (ACSR) conductor.

Some of the new transmission structures may require a new right of way along that portion of the loop-in T/Ls between SCE's existing ROW and the new Red Bluff Substation Site. Other transmission structures would be within SCE's existing ROW. Three dead-end structures would be required for each line segment to reach the edge of the Red Bluff Substation Site.

The proposed routes for the 500 kV transmission loop-in line require crossing over the recently constructed FPL's Buck-Julian Hinds 220 kV T/L. Since there is no magnetic field interaction between T/Ls that cross each other in right angles, the proposed modification to the above mentioned 220 kV T/Ls is not evaluated in this FMP.

The 500 kV switchrack would initially have a total of six positions. Four positions would be utilized in the initial design: one position on a breaker and a half configuration would be to loop the existing DPV 500 kV T/L to create the Colorado River-Red Bluff No. 1 and Devers-Red Bluff No. 1 500 kV T/Ls. Two positions would be used to loop the Colorado River – Red Bluff No. 2 and Colorado River-Devers No. 2 500 kV T/Ls, and one position would be for a AA (500/220 kV)-bank position for generation interconnection. The remaining two positions will be available for future expansion.

The 220kV switchrack would initially have a total of four positions: one position for the AA-bank, and a gen-tie on a breaker and a half configuration, one position for the initial project gen-tie and the remaining two positions for future expansion.

The Red Bluff Substation would be initially equipped with:

- Two (2) 500 kV Operating buses covering six positions
- Twenty-seven (27) single-phase 500 kV circuit breakers
- Fifty-four (54) single-phase 500 kV disconnect switches
- Four (4) single-phase, 373 MVA, 500/220 kV transformers
- Two (2) 220 kV Operating buses covering four positions
- Five (5) three-phase 220 kV circuit breakers
- Ten (10) 220 kV group operated disconnect switches
- One (1) 200 kV motor operated disconnect switch

- A Mechanical Electrical Equipment Room (MEER)
- Station light and power transformers
- Station lighting
- 750 kilovolt-ampere (kVA) emergency generator

EVALUATION OF “NO-COST AND LOW-COST” MAGNETIC FIELD REDUCTION DESIGN OPTIONS

Please note that 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 transmission line 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 Proposed Project is divided into three parts:

- Part 1: Proposed Red Bluff Loop-In 500 kV T/L segments
- Part 2: Proposed Red Bluff 500 kV Substation
- Part 3: Project Alternatives

Part 1: Proposed Red Bluff Loop-In 500 kV T/L Segments

The proposed structure design used for the proposed Red Bluff loop-in T/L segments mid-span is shown in Figure 2. The loop-in T/L segments will be located in undeveloped area.

No-Cost Field Reduction Measures: The pending Colorado River Substation Project that was approved as part of SCE’s DPV2 Project and now known as DCR requires a specific phase arrangement for DCR No.1 and DCR No.2 T/Ls for field reduction. In

order to maintain this phase arrangement, arranging the phases for the Red Bluff loop-in T/L segments (typically no cost), would require low cost engineering measures.

Low-Cost Field Reduction Options: Conductor phase requirements for other projects in the area would lead to the need for low-cost engineering to arrange phase conductors and reduce magnetic field in the adjacent transmission corridors.

Magnetic Field Calculations: Figure 3 and Table 2 show the calculated magnetic field levels for proposed design. These calculations were made using the typical proposed structure height of 150 feet.

Figure 2. Proposed Red Bluff Loop-In T/L Segments

(Facing Red Bluff Substation and Looking North)

Devers- Red Bluff
No.2 500 kV T/L

Devers- Red Bluff
No.1 500 kV T/L

Colorado River –
Red Bluff No. 1
500 kV T/L

Colorado River –
Red Bluff No. 2
500 kV T/L

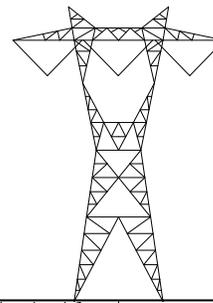
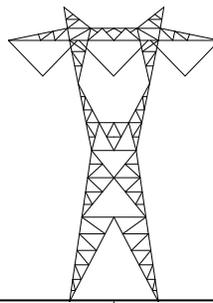
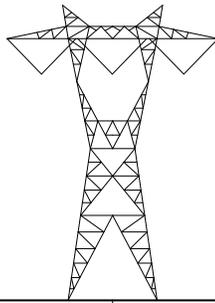
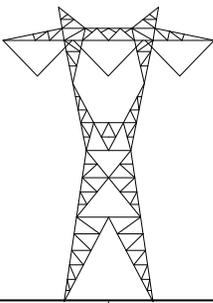


Figure 3. Calculated Magnetic Field Levels³⁶ for the Proposed Red Bluff Loop-In T/L Segments (Looking North)

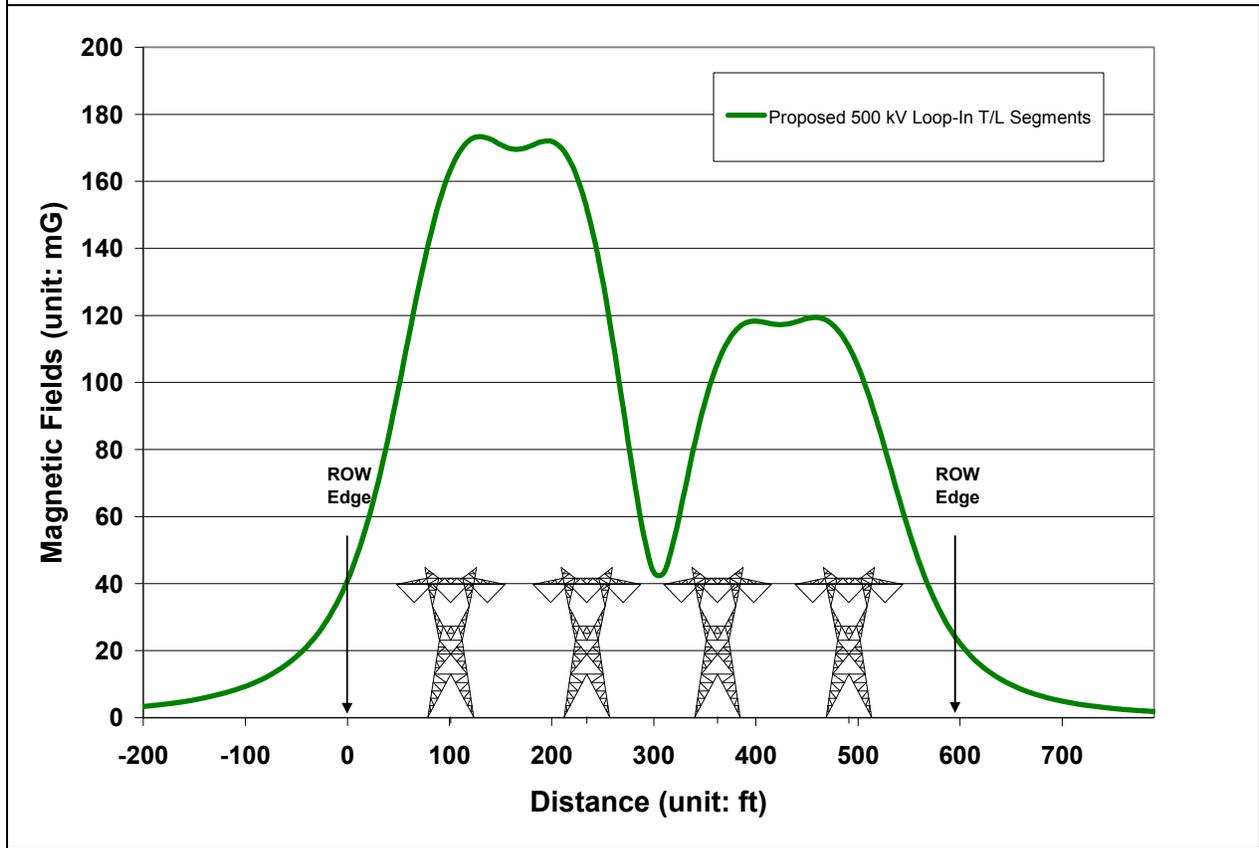


Table 2. Calculated Magnetic Field Levels³⁷ for Loop-In T/L Segments

Design Options	Left ROW Edge (mG)	% Reduction	Right ROW Edge (mG)	% Reduction
Proposed Red Bluff Loop-In T/L Segments	40.9	N/A	26.5	N/A

Recommendations for proposed loop-in T/L segments: *The proposed T/L segments will be located in undeveloped areas. Therefore, low-cost magnetic field reduction measure such as*

³⁶ This table lists calculated magnetic field levels for design comparison only and is not meant to predict actual magnetic field levels.

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

utilizing taller structures is not recommended. However, it is recommended to arrange the conductors of the loop-in T/L segments in a way to reduce magnetic field levels in the nearby transmission corridor.

Part 2: Proposed Red Bluff 500 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 design options 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;
- Field reduction for transmission lines and subtransmission lines entering and exiting the substation.

The Substation Checklist, as shown in Table 3, is used for evaluating the no-cost and low-cost design options considered for the substation project, the design options adopted, and reasons that certain design options were not adopted if applicable.

Table 3. Substation Checklist for Examining No-cost and Low-cost Magnetic Field Reduction Design Options

No.	No-Cost and Low-Cost Magnetic Field Reduction Design Options Evaluated for a Substation Project	Design Options Adopted? (Yes/No)	Reason(s) if not Adopted
1	Are 500 kV rated transformer(s) 50 feet or more from the substation property line?	Yes	
2	Are 220 kV rated transformer(s) 50 feet or more from the substation property line?	N/A	
3	Are 500 kV rated switch-racks, capacitor banks & bus 40 feet or more from the substation property line?	Yes	
4	Are 220 kV rated switch-racks, capacitor banks & bus 40 feet or more from the substation property line?	Yes	

Part 3: Project Alternatives

This FMP includes only “no-cost and low-cost” magnetic field reduction design options for SCE’s Proposed Routes and Proposed Substation site. SCE’s Red Bluff Substation Project Description contains various alternative line routes and substation site(s). Comparable “no-cost and low-cost” magnetic field reduction options for the Proposed Project can be applied to all alternative transmission routes and substation sites. A Final FMP will be prepared should an alternative route be approved.

FINAL RECOMMENDATIONS FOR IMPLEMENTING “NO-COST AND LOW-COST” MAGNETIC FIELD REDUCTION DESIGN OPTIONS

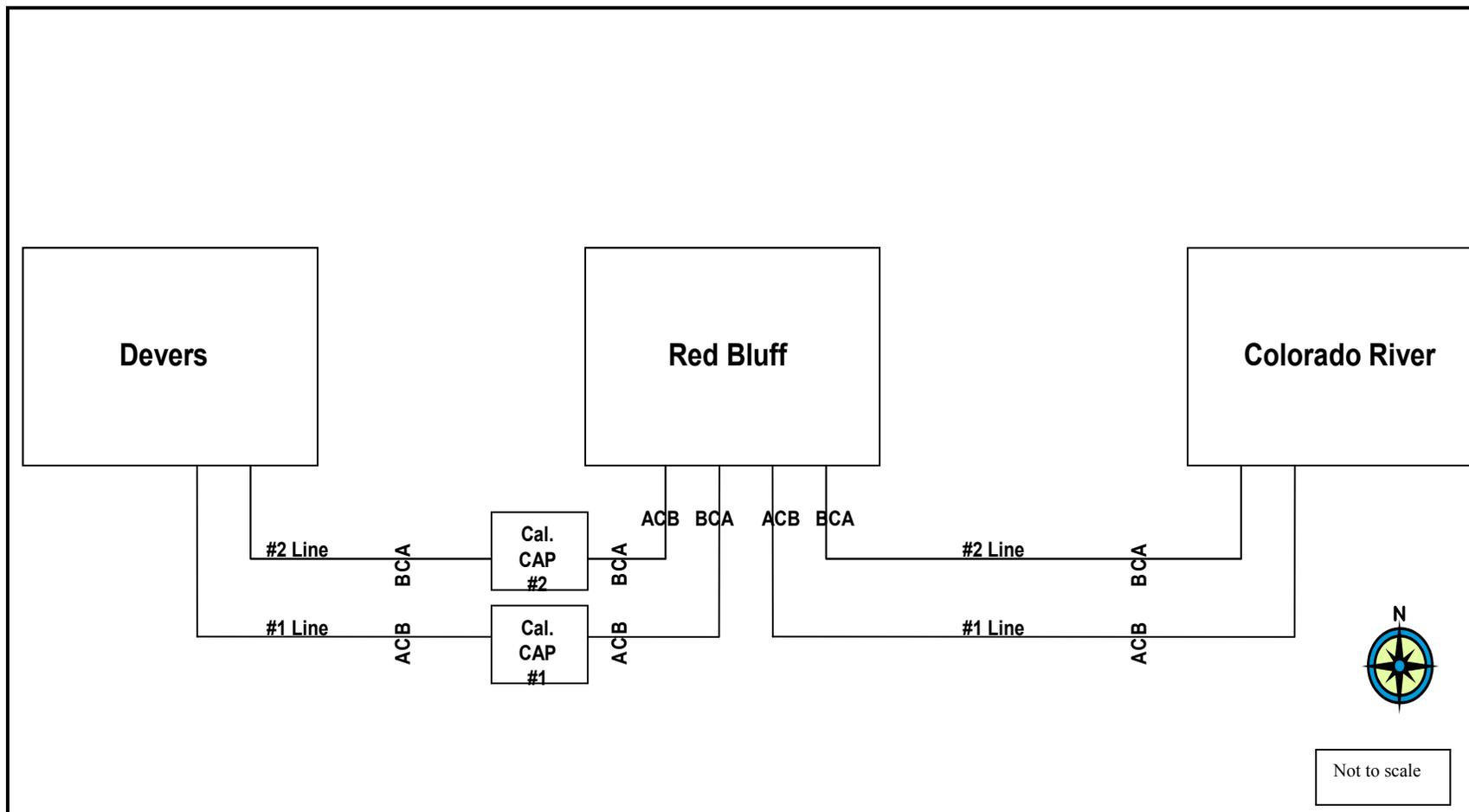
In accordance with the “EMF Design Guidelines”, filed with the CPUC in compliance with CPUC Decisions 93-11-013 and 06-01-042, SCE would implement the following “no-cost and low-cost” magnetic field reduction design options for Proposed Project:

For Proposed Red Bluff 500 kV Loop-In T/L Segments:

- Arrange conductors of proposed transmission line for magnetic field reduction according to the Colorado River Substation Expansion Project and DPV2, now known as DCR, Project phasing requirement:
 - Devers – Red Bluff No. 2 T/L Segment: A-C-B (west to east)
 - Devers – Red Bluff No. 1 T/L Segment: B-C-A (west to east)
 - Colorado River – Red Bluff No. 1 T/L Segment: A-C-B (west to east)
 - Colorado River – Red Bluff No.2 T/L Segment: B-C-A (west to east)

Figure 4 shows the recommended phasing arrangement only. It does not depict the exact locations where the T/Ls will be connected at each substation.

Figure 4. Recommended 500 kV Phasing Diagram



For Proposed Red Bluff 500 kV Substation:

- Placing major substation electrical equipment (such as transformers, switchracks, buses and underground duct banks) away from the substation property lines

The recommended “no-cost and low-cost” magnetic field reduction design options listed above are based upon preliminary engineering designs, and therefore, they are subject to change during the final engineering designs. If the final engineering designs are different than preliminary engineering designs, SCE would implement comparable “no-cost and low-cost” magnetic field reduction design options. If the final engineering designs are significantly different (in the context of evaluating and implementing CPUC’s “no-cost and low-cost” EMF Policy) than the preliminary designs, a Final FMP will be prepared.

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, and also with recommendations made by the U.S. NIEHS. 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.

**APPENDIX A: TWO-DIMENSIONAL MODEL ASSUMPTIONS AND YEAR 2013
FORECASTED LOADING CONDITIONS**

Magnetic Field Assumptions:

SCE uses a computer program titled “MFields”³⁸ 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 T/L 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.

Typical two-dimensional magnetic field modeling assumptions include:

- All transmission lines were modeled using forecasted peak loads (see Table 4 below)
- All conductors were assumed to be straight and infinitely long
- Average conductor heights accounted for line sag were used in the calculation for the 500 kV loop-in T/L segments
- 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 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 were used.

³⁸ SCE, MFields for Excel, Version 2.0, 2007.

Table 4. Year 2013 Forecasted Loading Conditions for Proposed Red Bluff Loop-In T/L Segments	
Circuit Name	Current (Amp)
Colorado River – Red Bluff No.1 500 kV T/L	1200
Colorado River – Red Bluff No.2 500 kV T/L	1200
Devers – Red Bluff No. 1 500 kV T/L	1800
Devers – Red Bluff No. 2 500 kV T/L	1800

Notes:

1. Forecasted loading data is based upon scenarios representing load forecasts for the third quarter of 2013. The forecasting data is subject to change depending upon availability of generations, load increase, changes in load demand, and by many other factors.
2. All existing line loading data is derived from historical data.
3. Load flows for Table 4 are assumed in the opposite directions

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 **APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U-338-3) FOR A PERMIT TO CONSTRUCT ELECTRICAL FACILITIES: RED BLUFF SUBSTATION PROJECT** on the parties identified below. Service was effected by placing the copies in properly addressed sealed envelopes and causing such envelopes to be delivered via overnight courier to the offices of the following individuals:

Karen Clopton Chief Administrative Law Judge California Public Utilities Office 505 Van Ness Avenue San Francisco, CA 94102	Melissa Jones Executive Director California Energy Commission 1516 9 th Street, MS3-39 Sacramento, CA 95814-5512
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Executed this 17th day of November 2010, at Rosemead, California.

/s/Melissa Schary
Project Analyst
SOUTHERN CALIFORNIA EDISON COMPANY

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Post Office Box 800
Rosemead, California 91770