BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) for a Permit to Construct Electrical Facilities With Voltages Between 50 kV and 200 kV: Triton Substation Project	)))))	Application No. _____ (Filed November 21, 2008)

APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A PERMIT TO CONSTRUCT ELECTRICAL FACILITIES WITH VOLTAGES BETWEEN 50 KV AND 200 KV: TRITON SUBSTATION PROJECT

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Dated: November 21, 2008

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I.

INTRODUCTION

Pursuant to California Public Utilities Commission (Commission or CPUC), General Order 131D (GO 131D), Southern California Edison Company (SCE) respectfully submits this application (Application) for a permit to construct (PTC) authorizing SCE to construct the proposed project known as the Triton Substation Project (Project). The Project consists of (1) construction of a 115/12 kilovolt (kV) substation (Triton Substation) on an approximate 10-acre site located at the southeast corner of Nicolas Road and Calle Medusa in the City of Temecula; (2) construction of two new overhead 115 kV subtransmission line segments (each approximately 1,300 feet in length) on approximately seven tubular steel poles to loop the existing 115 kV subtransmission line into the proposed substation; (3) construction of two new underground 12 kV distribution duct banks; and (4) installation of new fiber optic cable and communication equipment to connect the proposed Triton Substation to SCE's existing telecommunication system.

II.

BACKGROUND AND SUMMARY OF REQUEST

The Cities of Temecula and Murrieta as well as adjacent areas of unincorporated southwestern Riverside County (Electrical Needs Area) are currently served by SCE's Canine 33/12 kV Substation, Moraga 115/12 kV Substation, and Auld 115/33/12 kV Substation. These substations provide electrical service to approximately 40,660 metered customers and several rapidly growing developments within the Electrical Needs Area.

Currently, the amount of electrical power that can be delivered into the Electrical Needs Area is limited to the maximum amount of combined electrical power that the Canine, Moraga, and Auld Substations can transmit before their operating capacity limits are exceeded. The combined operating capacity of the three substations is presently limited to 309 megavolt amperes (MVA) under normal operating conditions. Canine Substation is a temporary facility with a designed capacity of 18 MVA, and is currently scheduled to be retired by June 2010. Therefore, when Canine Substation is retired, the capacity of the remaining two substations in 2010 will be limited to 291 MVA.

SCE projects that the normal condition peak demand in the Electrical Needs Area will increase at an average annual growth rate of 3.37 percent over the next 10 years. In 2007, the actual recorded normal condition peak demand for Canine, Moraga, and Auld Substations was collectively 230 MVA. The 2007 peak demand, as adjusted for a 1-in-10-year heat storm, was 245 MVA. By 2010, the peak demand for a 1-in-10-year heat storm is forecasted to be 330 MVA. As discussed above, in 2010, the maximum capacity of substations within the Electrical Needs Area will be limited to 291 MVA. Therefore, the projected peak demand for 2010 exceeds

the operating limits of the Moraga and Auld Substations, and additional electrical facilities are required to serve the Electrical Needs Area.

Construction of the Project will ensure that safe and reliable electric service is available to meet customer electrical demand without overloading the existing electric facilities that supply southwestern Riverside County. This would be accomplished by providing: (1) load relief to the Moraga and Auld 115/12 kV Substations; (2) enhanced system reliability by locating the substation in proximity to the load growth; (3) greater operational flexibility by providing the ability to transfer load between distribution lines and substations; and (4) sufficient capacity to meet long-term projected electrical demand in the area.

A Proponent's Environmental Assessment (PEA) prepared for the Project is attached to this Application. The PEA will be referenced in this Application, where appropriate, as the source of the information required in an Application for a PTC[1] pursuant to GO 131D, Section IX.B. A complete project description is located in Chapter 3 of the PEA. A statement of purpose and need is located in Chapter 1 of the PEA.

Construction of the Project is scheduled to begin in October 2009 and to be completed by June 2010. A schedule for the Project is included in this Application as Appendix C.

Upon completion of its review of this Application and preparation of the initial study, SCE requests that the Commission issue and certify an appropriate environmental document and issue a PTC authorizing SCE to construct the Project set forth in this Application and the attached PEA within the timelines set forth in Section III.H. of this Application.

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[1] Other required information for a PTC application (e.g. Balance Sheet, Articles of Incorporation, etc.) is contained in this Application or its appendices.

III.

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:

Linda Anabtawi
Attorney
Southern California Edison Company
Post Office Box 800
Rosemead, California 91770
Phone: (626) 302-6832
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. 93-06-022[2] 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 as of September 30, 2008, and the statement of income for the period ending September 30, 2008. 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

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[2] Application No. 93-06-22, filed June 15, 1993, regarding approval of a Self-Generation Deferral Agreement between Mobile Oil Corporation Torrance Refinery and Southern California Edison Company.

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, Tuolumne[3], 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.

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

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

Almost all of the information required to be included in a PTC application pursuant to GO 131D, Section IX.B is found in the PEA.

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

- Descriptions of the Project are found in the Executive Summary, Chapter 2, Chapter 3, and throughout Chapter 4.

- The substation site is described and illustrated in Section 2.5.1 and Figures 2.5-1 through 2.5-3. The alternative substation sites are described and illustrated in Sections 2.5.2 and 2.5.3 and Figures 2.5-1, 2.5-2, 2.5-4, and 2.5-5.

- The physical characteristics of the substation and equipment are described and illustrated in Section 3.3.1 and Figure 3.3-1. The physical characteristics of the 115 kV subtransmission line loop-ins are described and illustrated in Section 3.3.3 and Figures 2.5-3 and 3.3-2. The physical characteristics of the 12 kV distribution line getaways are described in Section 3.3.2.

- 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 (Figure 1.1-1) and Project area (Figures 1.1-2, 2.4-1, and 2.5-2) maps are provided in the PEA.

- Maps of current land use including designation of parks, recreational, and scenic areas are provided as Figures 4.9-1 through 4.9-3.

- Maps of the power line loop-in showing its proximity to existing electrical transmission and power lines are provided as Figures 2.5-1 and 2.5-2.

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 Section 2.5.

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.*

- SCE met with various representatives for the City of Temecula on March 31, October 13, and October 17, 2008. These representatives include: Mike Naggar, Mayor; Jeff Comerchero, City Councilman; Shawn Nelson, City Manager; Aaron Adams, Assistant City Manager; Debbie Ubnoske, Planning Director; and Bob Johnson, Assistant City Manager. Project information was presented and sites were discussed. A written statement from the City of Temecula, dated October 29, 2008, is attached to the PEA in Appendix D.

- On April 16, 2008, SCE met with Stevie Field, the Field Deputy for Riverside County Supervisor Jeff Stone, to discuss the Project and the alternative sites. Ms. Field did not express any concerns at this time. Follow-up information was sent to the Supervisor's office and to the County of Riverside Planning Department regarding new project information on October 14, 2008. A letter and project information was also submitted to Ron Goldman, the Planning Director, on November 6, 2008.

- In April 2008, SCE initiated contact with the City of Murrieta; however, the City of Murrieta did not respond to SCE's invitation to meet regarding the Project.

- On April 26, 2007, a request was made (by facsimile) to the Native American Heritage Commission (NAHC) to conduct a records search of the Sacred Lands File for cultural resources that may be affected by the Project. The Commission responded on May 3, 2007, stating that a search of the Sacred Lands File failed to indicate the presence of Native American cultural resources in the immediate project area. A list of Native American individuals and organizations that may have knowledge of cultural resources in the project area was enclosed in the

response from NAHC. SCE will contact these individuals and organizations if, during archaeological monitoring, human remains are encountered.

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.*

- A PEA is attached to this Application

G. Compliance With GO 131D, Section X

GO 131D, 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 F 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 131D; and (2) issuance of a PTC authorizing SCE to construct the Project.

SCE suggests the following proposed schedule for this Application:

November 21, 2008	Application filed.
December 22, 2008	Application accepted as complete.
January 2009	Initial Study issued.
June 2009	Draft CEQA document (Negative Declaration, Mitigated Negative Declaration or EIR) issued for comment.
August 2009	Draft decision issued.
September 2009	Final Commission decision issued. Final CEQA document approved.

I. Statutory Authority

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

J. Public Notice

Pursuant to GO 131D, 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 131D. A copy of the Notice of Application for a Permit to Construct and 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 and a service list are contained in Appendix E.

K. Supporting Appendices And Attachment

Appendices A through E and the attached PEA listed below are made a part of this Application:

- Appendix A: Balance Sheet and Statement of Income as of September 30, 2008
- Appendix B: List of Counties and Municipalities Served by SCE
- Appendix C: Triton Substation Project Schedule
- Appendix D: Notice of Application for a Permit to Construct
- Appendix E: Certificate of Service of Notice of Application for a Permit to Construct
- Appendix F: Field Management Plan
- Attachment: Proponent's Environmental Assessment

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 prepare a negative declaration or an environmental impact report for this Project.

M. Request For Ex Parte Relief

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

Moreover, as addressed in the same subsection of GO 131D, SCE requests that the Commission refrain from assigning an ALJ to this proceeding, unless a valid protest is received by the Commission, and in the absence of any valid protest allow the Energy Division to process this Application.[4/]

4/ D.95-08-038, Appendix A, p. 25.

IV.

CONCLUSION

SCE respectfully requests the Commission to issue a PTC authorizing SCE to construct the Triton Substation Project described in this Application and the attached PEA. 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

By: Les Starck
Vice President

By: Linda Anabtawi
Attorney for
SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-6832
Facsimile: (626) 302-1926

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 4th day of November 2008, at Rosemead, California.

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

Appendix A

BALANCE SHEET AND STATEMENT OF INCOME

AS OF SEPTEMBER 30, 2008

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET

SEPTEMBER 30, 2008

A S S E T S

(Unaudited)

(Millions of Dollars)

UTILITY PLANT:	
Utility plant, at original cost	$21,596
Less - Accumulated depreciation and decommissioning	(5,526)
	16,070
Construction work in progress	1,970
Nuclear fuel, at amortized cost	246
	18,286
OTHER PROPERTY AND INVESTMENTS:	
Nonutility property - less accumulated provision for depreciation of $748	967
Nuclear decommissioning trusts	2,855
Other Investments	86
	3,908
CURRENT ASSETS:	
Cash and equivalents	1,256
Short-term investments	3
Margin and collateral deposits	10
Receivables, including unbilled revenues, less reserves of $33 for uncollectible accounts	1,030
Accrued unbilled revenue	518
Inventory	352
Accumulated deferred income taxes - net	215
Derivative assets	125
Regulatory assets	454
Other current assets	84
	4,047
DEFERRED CHARGES:	
Regulatory assets	2,880
Derivative assets	13
Other long-term assets	658
	3,551
	$29,792

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET

SEPTEMBER 30, 2008

CAPITALIZATION AND LIABILITIES

(Unaudited)

(Millions of Dollars)

CAPITALIZATION:	
Common stock	$2,168
Additional paid-in capital	529
Accumulated other comprehensive loss	(17)
Retained Earnings	3,788
Common shareholder's equity	6,468
Preferred and preference stock not subject to redemption requirements	920
Long-term debt	5,714
	13,102
CURRENT LIABILITIES:	
Short-term debt	1,558
Long-term debt due within one year	150
Accounts payable	838
Accrued taxes	128
Accrued interest	105
Counterparty collateral	9
Customer deposits	226
Book overdrafts	298
Derivative liabilities	132
Regulatory liabilities	1,179
Other current liabilities	682
	5,305
DEFERRED CREDITS:	
Accumulated deferred income taxes - net	2,816
Accumulated deferred investment tax credits	100
Customer advances	134
Derivative liabilities	30
Power purchase contracts	21
Accumulated provision for pensions and benefits	857
Asset retirement obligations	2,966
Regulatory liabilities	2,889
Other deferred credits and other long-term liabilities	1,121
	10,934
Minority interest	451
	$29,792

SOUTHERN CALIFORNIA EDISON COMPANY

STATEMENT OF INCOME

NINE MONTHS ENDED SEPTEMBER 30, 2008

(Unaudited)

(Millions of Dollars)

OPERATING REVENUE	$8,390
OPERATING EXPENSES:	
Fuel	1,161
Purchased power	3,111
Provisions for regulatory adjustment clauses - net	(286)
Other operation and maintenance expenses	2,145
Depreciation, decommissioning and amortization	750
Property and other taxes	179
Gain on sale of assets	(9)
Total operating expenses	7,051
OPERATING INCOME	1,339
Interest income	12
Other nonoperating income	69
Interest expense - net of amounts capitalized	(297)
Other nonoperating deductions	(114)
INCOME BEFORE INCOME TAX AND MINORITY INTEREST	1,009
INCOME TAX EXPENSE	268
MINORITY INTEREST	161
NET INCOME	580
DIVIDENDS ON PREFERRED AND PREFERENCE STOCK - NOT SUBJECT TO MANDATORY REDEMPTION	38
NET INCOME AVAILABLE FOR COMMON STOCK	$542

Appendix B

LIST OF COUNTIES AND MUNICIPALITIES

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

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

Appendix C

TRITON SUBSTATION PROJECT SCHEDULE

Proposed Triton Substation Project Schedule

Date	Event
November 21, 2008	Application filed.
December 22, 2008	Application accepted as complete.
January 2009	Initial Study issued.
June 2009	Draft CEQA document (Negative Declaration, Mitigated Negative Declaration or EIR) issued for comment.
August 2009	Draft decision issued.
September 2009	Final Commission decision issued. Final CEQA document approved.
October 2009	Commence construction.
June 2010	Construction complete. Commence operation.

Appendix D

NOTICE OF APPLICATION FOR A PERMIT TO CONSTRUCT

NOTICE OF APPLICATION FOR A PERMIT TO CONSTRUCT

TRITON 115 KV SUBTRANSMISSION LINE PROJECT
Date: November 21, 2008

Proposed Project: Southern California Edison Company (SCE) has filed an application with the California Public Utilities Commission (CPUC) for a permit to construct (PTC) the Triton Substation Project (Proposed Project). The Proposed Project includes the following elements.

- Construction of a new 115/12 kilovolt (kV) substation (Triton Substation). The Triton Substation would be an unmanned, automated, low-profile, 56 mega volt-ampere (MVA) 115/12 kV substation.
- Installation of approximately seven engineered tubular steel poles to support two new 115 kV subtransmission line segments, each approximately 1,300 feet long, connecting the Triton 115/12 kV substation to the existing Valley-Auld-Pauba 115 kV subtransmission line.
- Construction of two new underground 12 kV distribution duct banks to accommodate six circuits.
- Installation of new fiber optic cable and communication equipment to connect the Triton Substation to SCE's existing telecommunication system.

The Proposed Project would be located on approximately a 10 acre parcel located within the City of Temecula, in the County of Riverside.

The purpose of the Proposed Project is to maintain system reliability and to serve projected electrical demand in the City of Temecula, Murrieta, and adjacent areas of Southwest Riverside County.

Construction is scheduled to begin in the third quarter of 2009. The proposed project is planned to be operational by June 2010.

Environmental Assessment: SCE has prepared a Proponent's Environmental Assessment (PEA), which includes an analysis of potential environmental impacts created by the construction and operation of the proposed project. The PEA concludes that the proposed project would not result in any significant environmental impacts.

EMF Compliance: The California Public Utilities Commission (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 electric equipment (such as transformers) away from the existing substation property lines;
2. Using pole heights that meet or exceed the "preferred"115 kV design criteria as specified in SCE's EMF Design Guidelines;
3. Using "double-circuit" pole-head configurations for the looped 115 kV subtransmission lines; and
4. Phasing the looped 115 kV subtransmission lines into the Proposed Substation for reducing magnetic fields.

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 may, within 30 days of the date on this notice, (i.e., no later than December 22, 2008), 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 who is 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 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
Docket Office, Room 2001
505 Van Ness Avenue
San Francisco, CA 94102

AND

Southern California Edison Co.
Law Dept. - Exception Mail
2244 Walnut Grove Avenue
Rosemead, CA 91770
Attention: Cheryl Lawson

AND

California Public Utilities Commission
Director, Energy Division
505 Van Ness Avenue, 4th Floor
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.

To review a copy of SCE's Application, or to request further information, please contact:

Viet Tran
SCE San Jacinto Valley Service Center
26100 Menifee Rd., Romoland CA. 92585
Phone: (951) 928-8352
Fax: (951) 928-8308
viet.tran@sce.com

LIST OF NEWSPAPER(S)
PUBLISHING THE NOTICE OF APPLICATION
FOR A PERMIT TO CONSTRUCT

The Riverside County Press Enterprise
3450 Fourteenth Street
Riverside, CA 92501

North County Times – The Californian
28765 Single Oak Drive, Suite 100
Temecula, CA 92590

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 **Southern California Edison Company's (U-338-E) Notice of Application for a Permit** 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 21st day of November, 2008, at Rosemead, California.

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Project Analyst
SOUTHERN CALIFORNIA EDISON COMPANY

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Celeste Cantu, Director
1001 "I" Street
Sacramento, CA 95814

Department of Fish and Game Headquarters
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1416 Ninth Street
Sacramento, CA 95814

South Coast Air Quality
Management District
21865 Copley Drive
Diamond Bar, CA 91765

California Department of Transportation
District 8
464 W. 4th Street
San Bernardino, CA 92401

California Air Resources Board
Attn: Stationary Source
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Sacramento, CA 95812

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Quality Control Board
Santa Ana Region 8
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Riverside, CA 92501

California Department of Transportation
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Mary Frederick, Division of Aeronautics
Acting Chief
PO Box 942874
Sacramento. CA 94274-0001

Triton
Preferred
300' Ownership Listing

APN	OWNER NAME	MAILING ADDRESS	MAILING CITY	MAILING STATE	MAILING ZIP	SITUS ADDRESS	SITUS CITY/STATE/ZIP	SITUS COUNTY
957-080-014	SERAPHINA DEV	2010 W 65TH AVE NO 100	FIRCREST	WA	98466	N/A	TEMECULA, CA 92591	RIVERSIDE
957-080-016	LASAGNA, LAWRENCE T. & HELEN N.	P O BOX 1136	TEMECULA	CA	92593	30885 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-080-017	LASAGNA, LAWRENCE T. & HELEN N.	P O BOX 1136	TEMECULA	CA	92593	N/A	TEMECULA, CA 92591	RIVERSIDE
957-090-018	INTERNATIONAL CHURCH FOURSQUARE GOSPEL	42111 AVENIDA ALVARADO	TEMECULA	CA	92590	31276 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-090-019	EDWARDS, CECIL E.	31250 NICOLAS RD	TEMECULA	CA	92591	31250 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-090-020	BAILLARGEAT, REINE	1100 IRVINE BLV NO 225	TUSTIN	CA	92780	31220 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-090-021	RANCHO CALIF WATER DISTRICT	P O BOX 9017	TEMECULA	CA	92589	N/A	TEMECULA, CA 92591	RIVERSIDE
957-090-022	NGO, LAM	13341 WILSON ST	GARDEN GROVE	CA	92844	31249 INDIAN SUMMER RD.	TEMECULA, CA 92591	RIVERSIDE
957-090-023	NAVEJAR, ISAAC G. & ISABEL L.	29622 LIEFER RD	TEMECULA	CA	92591	39622 LEIFER RD.	TEMECULA, CA 92591	RIVERSIDE
957-140-004	ROTELL, JOSEPH & ANGELA KATHLEEN	39633 LIEFER RD	TEMECULA	CA	92591	39633 LEIFER RD.	TEMECULA, CA 92591	RIVERSIDE
957-140-005	DELVAL, JUAN P. & ILLANA	31050 NICHOLAS RD	TEMECULA.	CA	92591	31050 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-140-006	MERCER, TRELLJ. & JANET M.	31041 NICOLAS RD	TEMECULA	CA	92591	31041 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-140-009	CALVARY BAPTIST CHURCH OF RANCHO CALIF	31087 NICOLAS ROAD	TEMECULA	CA	92591	31087 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-140-010	GRACE PRESBYTERIAN CHURCH OF TEMECULA	31143 NICOLAS RD	TEMECULA	CA	92592	31143 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-140-011	ISLAMIC CENTER OF TEMECULA VALLEY	42188 RIO NEDO STE 80	TEMECULA	CA	92590	N/A	TEMECULA, CA 92591	RIVERSIDE
957-150-001	DSE TEMECULA 1 LTD PARTNERSHIP	2010 W 65TH AVE NO 100	FIRCREST	WA	98466	31225 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-150-002	DSE TEMECULA 1 LTD PARTNERSHIP	2010 W 65TH AVE NO 100	FIRCREST	WA	98466	31205 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-150-003	DSE TEMECULA 1 LTD PARTNERSHIP	2010 W 65TH AVE NO 100	FIRCREST	WA	98466	31253 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-150-005	BRANNIGAN, MICHAEL K. & ELAINE	30960 CALLE PINA COLADA	TEMECULA	CA	92591	31270 TOMMY LN.	TEMECULA, CA 92591	RIVERSIDE
957-150-006	BRANNIGAN, MICHAEL K. & ELAINE	30960 CALLE PINA COLADA	TEMECULA	CA	92591	31280 TOMMY LN.	TEMECULA, CA 92591	RIVERSIDE
957-150-013	CERNOSEK, PETER & MARTA	39930 CALLE MEDUSA	TEMECULA	CA	92591	39930 CALLE MEDUSA	TEMECULA, CA 92591	RIVERSIDE
957-150-016	DSE TEMECULA 1 LTD PARTNERSHIP	2010 W 65TH AVE NO 100	FIRCREST	WA	98466	31255 NICOLAS RD.	TEMECULA, CA 92591	RIVERSIDE
957-150-017	VO,THANH M	32615 FAVARA DR.	TEMECULA	CA	92592	31291 TOMMY LN.	TEMECULA, CA 92591	RIVERSIDE
957-150-018	CASSATT ACADEMY	39691 MILLBROOK WAY A	MURRIETA	CA	92563	39960 CALLE GIRASOL	TEMECULA, CA 92591	RIVERSIDE
957-150-019	NGUYEN, DAVE VAN & VAN THI	40205 WHITELEAF LN	MURIETTA	CA	92562	31744 CALLE GIRASOL	TEMECULA, CA 92591	RIVERSIDE
957-150-020	CERNOSEK, PETER & MARTA	39930 CALLE MEDUSA	TEMECULA	CA	92591	N/A	TEMECULA, CA 92591	RIVERSIDE
957-150-023	ATILANO, FAUSTO	39865 CALLE MEDUSA	TEMECULA	CA	92591	39865 CALLE MEDUSA	TEMECULA, CA 92591	RIVERSIDE
957-150-024	NATIONAL CITY BANK	N/A	TEMECULA	CA	92592	N/A	TEMECULA, CA 92591	RIVERSIDE
957-170-002	MCKERNON, MICHAEL J & LISA	40045 CALLE MEDUSA	TEMECULA	CA	92591	40045 CALLE MEDUSA	TEMECULA, CA 92591	RIVERSIDE

SOURCE: Riverside County Appraisers Office
DATA LAST UPDATED: (07-01-2008)
Path: P:\GISData\Projects\2008Proj\2008LE200154026\Documentation\Triton 300ft Ownership List v2.xls

Appendix F

FIELD MANAGEMENT PLAN

FOR TRITON SUBSTATION PROJECT

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I. EXECUTIVE SUMMARY

This document is Southern California Edison Company's (SCE) Field Management Plan (FMP) for the Proposed Triton Substation Project (Proposed Project). The Proposed Project includes a new 56 megavolt ampere (MVA) 115/12 kilovolt (kV) substation (Triton Substation, Proposed Substation), one 115 kV loop-in from the existing subtransmission line into the Proposed Substation, two new underground 12 kV distribution duct banks, and a telecommunications system. The Project would meet forecasted electrical demands of the cities of Temecula and Murrieta, as well as adjacent areas of unincorporated Southwestern Riverside County and would maintain system reliability and enhance operational flexibility in the Electrical Needs Area.

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[1] electric and magnetic fields (EMF). This FMP also provides background on the current status of scientific research related to possible health effects of EMF, and a description of the CPUC's EMF policy.

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

- Placing major substation electric equipment (such as transformers) away from the existing substation property lines;
- Using pole heights that meet or exceed the "preferred"115 kV design criteria as specified in SCE's EMF Design Guidelines;

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1 The extreme low frequency is defined as the frequency range from 3 Hz to 3,000 Hz.

- Using "double-circuit" pole-head configurations for the looped 115 kV subtransmission lines; and
- Phasing the looped 115 kV subtransmission lines into the Proposed Substation for reducing magnetic fields.

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 Guidelines[2], and with applicable national and state safety standards for new electric facilities.

2 EMF Design Guidelines, August 2006.

II. BACKGROUND REGARDING EMF AND PUBLIC HEALTH RESEARCH ON EMF

There are many sources of power frequency[3] 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.[4]

Many of the questions about possible connections between EMF exposures and specific diseases have been successfully resolved due to an aggressive international research program. However, potentially important public health questions remain about whether there is a link between EMF exposures and certain diseases, including childhood leukemia and a variety of adult diseases (e.g., adult cancers and miscarriages). As a result, some health authorities have identified magnetic field exposures as a possible human carcinogen. As summarized in greater detail below, these conclusions are consistent with the following published reports: the National Institute of Environmental Health Sciences (NIEHS) 1999[5], the National Radiation Protection Board (NRPB) 2001[6], the International Commission on non-Ionizing Radiation Protection (ICNIRP) 2001, the California Department of Health Services (CDHS) 2002[7], the International Agency for Research on Cancer (IARC) 2002[8].

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

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

5 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.

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

7 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.

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

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."[9]
- "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."[10]
- "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."[11]

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

> "After a wide-ranging and thorough review of scientific research, an independent Advisory Group to the Board of NRPB has concluded that the power frequency electromagnetic fields that exist in the vast majority of homes are not a cause of cancer in general. However, some epidemiological studies do indicate a possible small risk of childhood leukemia associated with exposures to unusually high levels of power frequency magnetic fields."[12]

In 2002, three scientists for CDHS concluded:

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9 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

10 *ibid.*, p. iii

11 *ibid.*, p. 37 - 38

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

"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."[13]

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

"ELF magnetic fields are possibly carcinogenic to humans"[14], 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."[15]

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

"Scientific evidence suggesting that everyday, chronic low-intensity (above 0.3-0.4 μT [3-4 mG]) power-frequency magnetic field exposure poses a health risk is based on epidemiological

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13 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

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

15 *ibid.*, p. 332 - 334

studies demonstrating a consistent pattern of increased risk for childhood leukaemia."[16]

"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."[17]

"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 leukaemia 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"[18]

"Furthermore, given both the weakness of the evidence for a link between exposure to ELF magnetic fields and childhood leukaemia, 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."[19]

III. 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 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

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16 WHO, Environmental Health Criteria 238, EXTREMELY LOW FREQUENCY FIELDS, p. 11 - 12, 2007

17 *ibid.*, p. 12

18 *ibid.*, p. 12

19 *ibid.*, p. 13

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,[20] and the policy direction that (1) use of numeric exposure limits was not appropriate in setting utility design guidelines to address EMF,[21] 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.[22]

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.

"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

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20 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.").

21 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.").

22 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.").

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]..."[23]

The CPUC Decision stated,

> "We direct the utilities to use 4 percent as a benchmark in developing their EMF mitigation guidelines. We will not establish 4 percent as an absolute cap at this time because we do not want to arbitrarily eliminate a potential measure that might be available but costs

[23] CPUC Decision 06-01-042, p. 10

more than the 4 percent figure. Conversely, the utilities are encouraged to use effective measures that cost less than 4 percent."[24]

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."[25] 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.

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[24] CPUC Decision 93-11-013, § 3.3.2, p.10.
[25] 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."[26]

IV. PROJECT DESCRIPTION

SCE proposes to construct the Proposed Project on an approximately 10-acre property in the City of Temecula, in Riverside County. Primary components of the Proposed Project are:

Triton Substation (Proposed Substation)

- 115 kV operating/transfer bus with five circuit breakers
- Two 28 megavolt ampere (MVA) 115/12 kV transformer banks with associated high and low side disconnecting switches
- 12 kV operating/transfer bus equipped for six new 12 kV circuits
- Two 4.8 megavolt ampere reactive (MVAR) capacitor banks
- Station Automation 2 (SA-2) System

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

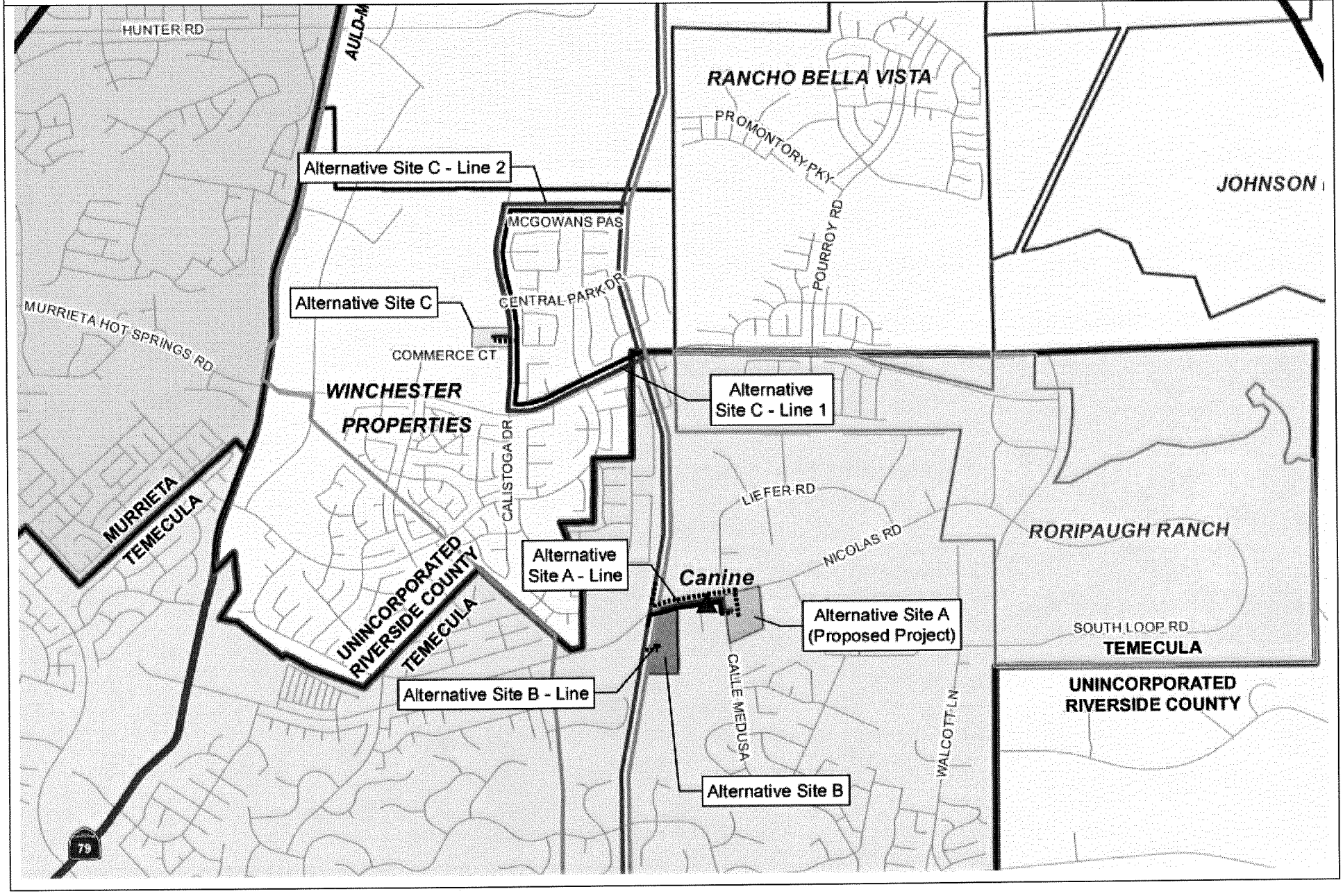
- Prefabricated Mechanical Electrical Equipment Room (MEER)

115 kV Subtransmission Line Loop-Ins

- One existing 115 kV subtransmission line located within an existing right-of-way west of the Proposed Substation site looped into the substation, resulting in the creation of two parallel 115 kV subtransmission line segments (each approximately 1,300 feet in length)
- Seven tubular steel poles (TSPs) to support the new 115 kV subtransmission line segments

Figure 1 below shows the overall project areas. SCE's preferred substation site is labeled as "Alternative Site A" on Figure 1. Currently, there are no schools along the "Alternative Site A – Line" (Preferred Route) as shown on Figure 1. The Preferred Route runs adjacent to few scattered homes and two churches along Nicolas Road and Calle Medusa Road.

Figure 1. Project Area Showing Preferred Site and Preferred Route



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

For the purpose of evaluating "no-cost and low-cost" magnetic field reduction design options, the Proposed Project is divided into two parts:

- Part 1: Proposed Triton 115 kV Substation
- Part 2: Proposed 115 kV Subtransmission Lines

Part 1: Proposed Triton 115 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;
- Subtransmission lines and distribution lines entering and exiting the substation.

The Substation Checklist, as shown on Table 1, 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.

Table 1. 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	Measures Adopted? (Yes/No)	Reason(s) if not Adopted
1	Are 115 kV rated transformer(s) 15 feet from the substation	Yes	

Table 1. Substation Checklist for Examining No-cost and Low-cost Magnetic Field Reduction Design Options			
	property line?		
2	Are 115 kV rated switch-racks, capacitor banks & bus 8 feet (or more) from the substation property line?	Yes	
3	Are 12 kV distribution underground cable duct banks 12 feet (or more) from the side property line?	Yes	
4	Are 115 kV rated transfer & operating buses configured with the transfer bus facing the nearest property line?	Yes	

Part 2: Proposed 115 kV Subtransmission Lines

The Proposed Substation would be served by the existing Valley-Auld-Pauba 115 kV subtransmission line by forming a subtransmission line loop into the Proposed Substation; thus forming Valley-Auld-Triton 115 kV and Pauba-Triton 115 kV subtransmission lines. The SCE's Preferred Route is approximately 1300 ft long.

The applicable no-cost and low-cost magnetic field reduction design options for the proposed double-circuit subtransmission line design are as follows:

1. Using pole heights that meet or exceed the "preferred"115 kV design criteria as specified in SCE's EMF Design Guidelines;
2. Selecting pole-head configurations with less phase-to-phase distance and/or circuit-to-circuit distance; and
3. Phasing the looped 115 kV subtransmission lines with respect to each other.

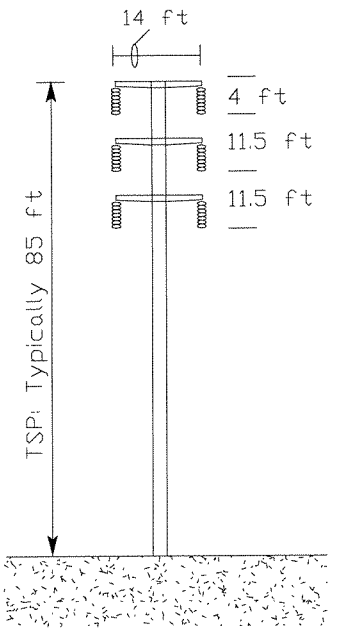
After ten years of evaluating and implementing no-cost and low-cost magnetic field reduction design options for subtransmission line designs, SCE established preferred overhead 66 kV and 115 kV subtransmission line designs in 2004. These preferred designs incorporate the most effective no-cost and low-cost magnetic field reduction design options (such as pole-head

configurations and taller poles). For overhead 115 kV subtransmission lines, SCE's preferred designs[27] are as follows:

Table 2. Preferred Overhead 115 kV Subtransmission Line Designs with Most Effective Magnetic Field Reduction Design Options Incorporated		
	115 kV Overhead Construction	
	Single Circuit Design	Double Circuit Design
Base Pole Height	70 feet	75 feet
Base Pole-head Configuration	"Triangle" or equivalent	"Double-Circuit"
Minimum Clearance	35 feet	35 feet

The typical proposed double-circuit 115 kV overhead subtransmission design (Proposed Design) with no-cost and low-cost magnetic field reduction design options is shown on Figure 2 below.

Figure 2. Proposed 115 kV Subtransmission Line Design



[27] Exceptions to the "preferred design" are recommended by the primary designer based on engineering & safety requirements.

This design meets or exceeds the preferred double-circuit design as listed on Table 2 above. This design, therefore, would be applied uniformly to the Preferred Route as shown on Figure 1 above. The Proposed Design reflects SCE's consideration of using 5 to 10 ft taller poles. As Table 3 and Figure 3 illustrate below that the Proposed Design (with an added phasing option for reducing magnetic fields) would bring more than 15% magnetic field reduction at edges of ROW compared with the Base Design (using 5 foot shorter poles). Therefore, using 5 to 10 ft taller poles would be applied uniformly to the Preferred Route as a low-cost magnetic field reduction measure.

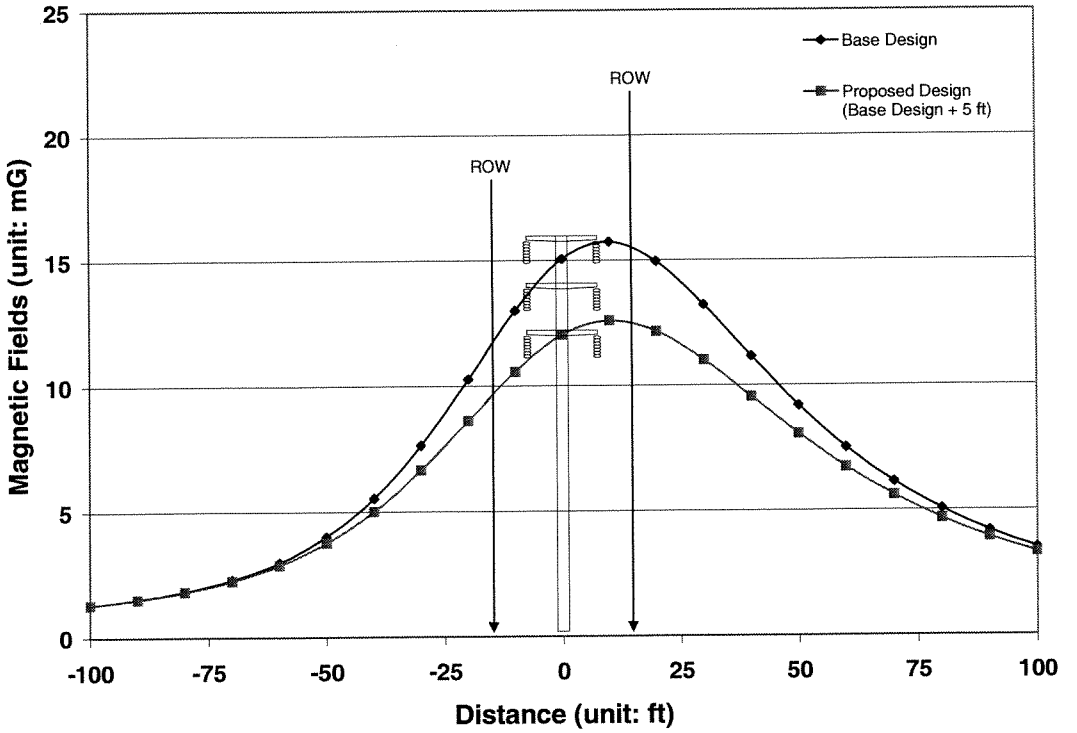
Please note that following magnetic field models and the calculated results of magnetic field levels are intended only for purposes of identifying the relative differences in calculated magnetic field levels among various subtransmission line design alternatives under a specific set of modeling assumptions (see §VII-Appendix A for more detailed information about the calculation assumptions and loading conditions) and determining whether particular subtransmission 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 project is constructed.

Table 3. A Comparison of Calculated Magnetic Fields[28] at Edges of ROW

Design Options	Left ROW (mG)	% Reduction	Right ROW (mG)	% Reduction
Base Design	11.7	Base	15.5	Base
Proposed Design (Base Design + 5 ft)	9.6	17.9	12.5	19.4

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

Figure 3. A Design Comparison of Calculated Magnetic Field Levels[29]



<Looking West Along Nicolas Road or Looking North Along Calle Medusa Road>

Currently, there are only distribution lines exist along parts of Preferred Route. Therefore, no existing scenario was modeled.

Table 4 on page 21 summarizes "no-cost and low-cost" magnetic field reduction design options that SCE considered for the Proposed Project:

29 This graph depicts calculated magnetic field levels for design comparison only and is not meant to predict actual magnetic field levels. The "Base Design" reflects a design option of using 5 ft shorter poles (i.e. not using taller poles).

Table 4 Summary of "No-cost and Low-cost" Magnetic Field Reduction Design Options

Area No.	Location[30]	Adjacent Land Use[31]	MF Reduction Design Options Considered	Estimated Cost to Adopt	Measure(s) Adopted? (Yes/No)	Reason(s) if not adopted
Preferred Route	From Proposed Substation to Calle Medusa Road and turn west at the Nicolas Road; approximately 1300 ft	2, 3, 6	• "Double-Circuit" pole-head Configuration • Taller poles • Phasing	• No-Cost • Low-Cost • No-Cost	• Yes • Yes • Yes	
Triton Substation	Proposed Substation Site	2, 3	• Placing major substation electric equipment (such as transformers) away from the existing substation property lines	• No-Cost	• Yes	

[30] This column shows the major cross streets, existing subtransmission lines, or substation name as reference points.

[31] 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.

This FMP includes only "no-cost and low-cost" magnetic field reduction design options for SCE's Preferred Route. SCE's Proponent's Environmental Assessment (PEA) contains various alternative line route(s) and project alternative(s). Comparable "no-cost and low-cost" magnetic field reduction options for the Preferred Route can be applied to all alternative subtransmission line route(s).

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

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

For Proposed Triton 115 kV Substation:

- Placing major substation electric equipment (such as transformers) away from the existing substation property lines

For Preferred 115 kV Subtransmission Line Route:

- Using pole heights that meet or exceed the "preferred"115 kV design criteria as specified in SCE's EMF Design Guidelines (typically 85 ft above ground);
- Using "double-circuit" type pole-head configurations; and
- Phasing[32] the looped 115 kV subtransmission lines into the Proposed Substation as follows.

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32 A comparable phasing can be applied during the construction phase. The comparable phasing, in this case, is having the same phasing arrangements (from top-to-bottom) for both 115 kV subtransmission lines.

- Valley-Auld-Triton 115 kV (C-A-B: top-to-bottom)
- Pauba-Triton 115 kV (C-A-B: top-to-bottom)

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, however, 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 supplemental 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. National Institute of Environmental Health Sciences. Furthermore, the recommendations above meet the CPUC approved EMF Design Guidelines as well as all applicable national and state safety standards for new electric facilities.

VII. APPENDIX A: TWO-DIMENTIONAL MODEL ASSUMPTIONS AND YEAR 2010 FORECASTED LOADING CONDITIONS

Magnetic Field Assumptions:

SCE' uses a computer program titled "MFields"[33] to model the magnetic field characteristics of various subtransmission 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 subtransmission line design alternatives under a specific set of modeling assumptions and determining whether particular subtransmission 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 subtransmission lines would be considered operating at forecasted loads (see Table 5 below) and all conductors are straight and infinitely long;
- A 5 ft sagging for all subtransmission designs;
- Magnetic field strength is calculated at a height of three feet above ground;
- Resultant magnetic fields are being used;
- All line currents are balanced (i.e. neutral or ground currents are not considered);
- Terrain is flat; and
- Dominant power flow directions are being used.

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33 Kim, C, MFields for Excel, Version 2.0, 2007.

Table 5 Year 2010 Forecasted Loading Conditions for Proposed 115 kV Subtransmission Lines	
Circuit Name	**Current (Amp)**
Valley-Auld-Triton 115 kV	429
Pauba-Triton 115 kV	659

Note:

1. The power flow directions of above 115 kV subtransmission lines are in opposite direction from each other.
2. Forecasted loading data is based upon scenarios representing load forecasts for the year 2010. The forecasting data is subject to change depending upon availability of generations, load increase, changes in load demand, and by many other factors.

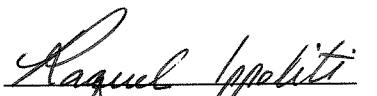
CERTIFICATE OF SERVICE

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-E) FOR A PERMIT TO CONSTRUCT ELECTRICAL FACILITIES WITH VOLTAGES BETWEEN 50 KV AND 200 KV: TRITON SUBSTATION PROJECT** on the parties identified below. Service was effected by placing copies in properly addressed sealed envelopes and depositing such envelopes in the United States mail with first-class postage prepaid (Vial First Class Mail).

Angela K. Minkin
Chief Administrative Law Judge
California Public Utilities Office
505 Van Ness Avenue
San Francisco, CA 94102

Ms. Melissa Jones
Executive Director
California Energy Commission
1516 9th Street, MS3-39
Sacramento, CA 95814-5512

Executed this 21st day of November, 2008, at Rosemead, California.



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