

[REDACTED]

SOUTHERN CALIFORNIA EDISON COMPANY

FACILITIES STUDY



APRIL 6, 2007

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I. Executive Summary

[REDACTED] applied to Southern California Edison (SCE) for the interconnection of 47MW of generation from their [REDACTED] to the [REDACTED] 66kV Bus under the terms of SCE's Wholesale Distribution Access Tariff (WDAT).

The [REDACTED] will interconnect to the CAISO Grid at the [REDACTED] 220kV Bus.

The Project consists of one 13.8kV LM6000 Gas Turbine, with a Net Generation Capacity of 47MW, and one 45MVA 66/13.8kV step-up Transformer Bank to interconnect the generation to the SCE 66kV System.

The [REDACTED] will be installed inside the [REDACTED] perimeter fence and it will be connected to a dedicated 66kV Line Position via new 66kV Generation Transformer Bank Leads to be constructed entirely inside the station.

GBU requested an interconnection date of July 1, 2007. SCE is currently performing Engineering and Design activities and ordering the necessary equipment to meet this date.

A Transmission System Impact Study (SIS), dated December 18, 2006, was prepared to address the impact of the new generation to the SCE Transmission System.

A Sub – Transmission System Impact Study (SIS) dated December 22, 2006, was prepared to address the impact of the new generation to the SCE Sub – Transmission System.

CAISO reviewed the SIS's and granted Preliminary Interconnection Approval for the Center Peaker on a letter to SCE (Robert Lugo) dated January 26, 2007.

SEE EXHIBIT A: CENTER SUBSTATION and 66kV GEN. TRANSF. BANK LEADS.

SEE EXHIBIT B: TRANSMISSION SIS – EXECUTIVE SUMMARY.

SEE EXHIBIT C: SUB-TRANSMISSION SIS – EXECUTIVE SUMMARY.

SEE EXHIBIT D: CAISO LETTER TO SCE (ROBERT LUGO) DATED 01/26/07.

II. Transmission System Impact Study Results.

The SIS analyzed the System including all interconnections placed ahead of the Project in the Application Queue on line and concluded that:

1. The Project does not trigger any Base Case, N – 1 or N – 2 overloads.
2. The Project does not aggravate any pre-existing Base Case, N – 1 or N – 2 overloads.
3. The project does not impact the transient stability conditions on the Transmission System.
4. The project does not impact the post – transient conditions on the Transmission System.
5. The Project does increase the Three – Phase and / or Single Phase to Ground Short Circuit Duties by 0.1kA or more at the following four 500kV and twenty 220kV locations:

500kV:	Lugo	Mesa (Future)	Mira Loma	Serrano	
220kV:	Alamitos	Barre	Center	Del Amo	Ellis
	Etiwanda	Hinson	La Fresa	Laguna Bell	Lewis
	Lighthipe	Mesa	Mira Loma	Olinda	Redondo
	Rio Hondo	Santiago	Serrano	Sylmar	Vista

The Transmission SIS considered a total of [REDACTED] potential Generation Projects, presently ahead of the Project on the Interconnection Application Queue, as already interconnected to the SCE System.

SEE EXHIBIT E: EARLIER INTERCONNECTIONS – APPLICATION QUEUE.

The SIS concluded that a Facilities Study would be required to determine the scope of work and cost estimates for the 66kV Interconnection Facilities at Center Substation and any required Circuit Breaker replacements or upgrades within the Transmission System.

III. Sub-Transmission System Impact Study Results

The SIS analyzed the System including all interconnections placed ahead of the Project in the Application Queue on line and concluded that:

1. The Project does not trigger any Base Case, N – 1 or N – 2 overloads.
2. The Project does not aggravate any pre-existing Base Case, N – 1 or N – 2 overloads.
3. The Project does increase the Three – Phase and / or Single Phase to Ground Short Circuit Duties by 0.1kA or more at the following fifteen 66kV locations:

Center	Dugoll	Downeymead	Gallatin	Imperial
Murphy	Nietos	Passons	Pioneer	Powerline
Procal	Santa Fe Springs	Siggen	Sponge	Stewart

The SIS initially concluded that the project requires the replacement of four 66kV CB's at Center Substation. However, changes in the CB Evaluation Process performed during the Facilities Study show different conclusions for both the Facilities and the Operational Studies.

Final results are shown on Section V – A of this Report and on the attached Addendum:

IV. Facilities Study Assumptions

- A. All required ISO metering equipment at the [REDACTED] will be provided by [REDACTED] and is not included in the Facilities Study.
- B. The required RTU to be installed at the [REDACTED] will be installed by SCE and it is included in the Facilities Study.
- C. The following line protection equipment, to be installed at the [REDACTED] termination point of the 66kV Generation Transformer Bank Leads will be specified by SCE and provided by [REDACTED] and is not included in the Facilities Study.
 - One SEL-311L Line Current Differential Relay.

V. Facilities Study Scope and Cost Estimate

V – A Facilities Study Scope

Pursuant to FERC's orders 2006-A (Small Generators) and 2003-A (Large Generators) all Facilities Studies are required to provide the customer with its "maximum possible funding exposure", which shall include the costs of upgrades that are reasonably allocable to the Interconnection Customer at the time the estimate is made, and the costs of any upgrades not yet constructed that were assumed in the interconnection studies for the Interconnection Customer but are, at the time of the estimate, an obligation of an entity other than the Interconnection Customer."

To comply with the FERC orders, the Scope of Work and Cost Estimate for all elements required for the interconnection are presented for the following two cases:

CASE A: All facilities required exclusively by the Project

And

CASE B: All additional facilities that may be required by the Project

The facilities included on Case B are those additional facilities required to remedy situations caused by earlier Projects, placed ahead of the Project in the Application Queue, and are expected to be implemented by them.

However, in the event that any of these earlier Projects withdraws their Application, the Project may become responsible for any or all of these additional facilities.

CASE A:

- Center Substation Install a Double – Breaker 66kV Line Position at the existing Switchrack [REDACTED] to terminate the GBU 66kV Generation Transformer Bank Leads.
- GBU Tr. Bk. Leads Install 1100 Circuit Ft. of new 66kV Line with 336.4KCMIL ACSR Conductors from the [REDACTED] to the Center 66kV Switchyard [REDACTED]
- Telecommunications Install two telecommunication channels on diverse paths from the [REDACTED] to Center Substation to support new 66kV [REDACTED] Tie Line protection scheme and the RTU.
- Power System Control Install new RTU at the [REDACTED] and modify existing Power Management System Data Base at Center Substation.
- Substations Automation Add the new 66kV Line to the existing Human – Machine Interface at Center Substation

CASE B:

- **No facilities required except for the Circuit Breakers addressed below.**

Circuit Breakers Evaluation

- Evaluate circuit breakers (CB's) short circuit capability at all locations where the Three-Phase and/or Single Phase to Ground SCD's were increased by 0.1kA or more as a result of the Project. The evaluation included a [REDACTED] 500kV CB's at three locations, [REDACTED] 220kV CB's [REDACTED] locations and [REDACTED] 66kV CB's at [REDACTED] locations.

The circuit breaker evaluation results are as follows:

CASE A: All circuit breakers are adequate – No replacements or upgrades required.

CASE B: The following replacements and upgrades are required:

Barre Substation	Upgrade [REDACTED] 220kV CB's
Etiwanda Gen. Sta.	Replace [REDACTED] 220kV CB's – See Note 1
Hinson Substation	Replace [REDACTED] and upgrade six 220kV CB's
La Fresa Substation	Upgrade [REDACTED] 220kV CB's
Mesa Substation	Replace [REDACTED] 220kV CB's – See Note 1

Mira Loma Substation	Replace [REDACTED] 220kV CB's -- See Note 1
Redondo Gen. Sta.	Upgrade [REDACTED] 220kV CB's
Center Substation	Replace [REDACTED] 66kV CB's

NOTE 1: The Short Circuit Duties (SCD) at the Etiwanda Gen. Sta. and the Mesa and Mira Loma Substations is higher than the present design standard of 63kA. This increase in SCD requires that, in addition to the CB replacement, the 220kV Switchyard at each location be upgraded to 80kA Rating.

SEE EXHIBIT E: FACILITIES STUDY SCOPE – ADDITIONAL DETAILS.

V – B Facilities Study Cost Estimate

CASE A Identifies the cost of all facilities that are required exclusively by the Project.

CASE B Identifies the cost of all upgrades required that were triggered by earlier Applicants placed ahead of the Project in the Application Queue.

In the event that any Applicant, presently placed ahead of the Project in the Application Queue, withdraws its Application, the system would need to be re-evaluated. The new evaluation may conclude that the Project would now trigger any of these upgrades and would then become responsible for some or all of the upgrades identified on Case B.

The total estimated cost of all elements of the interconnection as identified above in the Facilities Study Scope is as follows:

CASE A:	\$ 2,643,000
CASE B (<u>May</u> be added to Case A):	<u>\$92,715,000</u>
POSSIBLE MAXIMUM COST EXPOSURE:	\$95,358,000

NOTE:

The costs of upgrading the Etiwanda G.S., Mesa and Mira Loma Sub. 220kV Switchyards to 80kA Rating is only an approximate value based on an existing estimate prepared for a similar facility.

SEE EXHIBIT F: COST SUMMARY.

VI. Project Timeline

1. The Project is presently under Engineering and Design and major equipment has already been ordered.
2. The present Project Schedule shows an Interconnection Date of July 1, 2007.
3. At this time there is no definite schedule for the replacement and upgrades of 220kV Circuit Breakers at all locations addressed as Case B.
4. For the purpose of this Facilities Study these upgrades are shown in 2008 Dollars but they may still be postponed beyond 2008 if the System does not require them until later.
5. Future Operational Studies for those interconnections placed ahead of the Project in the Application Queue, but after the Project in the Operational Queue, will determine the actual dates when these upgrades will be required.

VII. Conclusions

- A. The estimated cost for the Interconnection is approximately \$2,643,000 for Case A with the potential additional cost of \$92,715,000 for Case B for a total Maximum Exposure of \$95,358,000.
- B. The costs indicated in the Cost Summary are shown 2007 Dollars, except for the cost of the 220kV Circuit Breaker replacements and upgrades identified under Case B, which are shown in 2008 Dollars due to the time required for these elements of the Project and the uncertainty as to the exact time when the SCE Transmission System would really require these upgrades.
These costs are not firm and are subject to change based on the final design and actual material costs. This Facilities Study and cost estimates as presented are valid for a period of 90 days.
- C. [REDACTED] will pay SCE based on actual costs. The estimated Project Cost will be reconciled to actual costs upon closure of the subject work orders. The necessary billing adjustments will be made at that time.

ADDENDUM

OPERATIONAL STUDIES RESULTS

[REDACTED]
[REDACTED]
[REDACTED]

ADDENDUM TO THE FACILITIES STUDY

OPERATIONAL STUDIES

General Information

In addition to the Transmission and Sub – Transmission System Impact Studies, which are based on the Application Queue, SCE also prepared Operational Studies, which are based on the Operational Queue, for both Systems.

The Operational Queue includes exclusively those prior interconnections which are either already on line or expected to come on line before the Project.

A Transmission Operational Study dated December 21, 2006 was prepared to address the impact of the new generation to the SCE Transmission System.

The results of the Sub – Transmission Operational Study addressing the impact of the new generation to the SCE Sub – Transmission System were included in the Sub – Transmission SIS.

Original Operational Studies Results

Both the Transmission and Sub – Transmission Operational Studies concluded that the Systems are adequate to support the new Project on July 1, 2007 and no upgrades are required prior to the interconnection.

Updated Operational Studies Results

New Circuit Breaker evaluations performed during the Facilities Study show that the replacement of the [REDACTED] 66kV Circuit Breakers at [REDACTED] which were identified as pre-project conditions have changed as follows based on the Operational Queue:

- The replacement of the following [REDACTED] 66kV CB's are triggered by the Project:
[REDACTED] – Approximate Cost: \$1,880,000

NOTE:

Given that:

- a) The replacement of these [REDACTED] Circuit Breakers can't be completed by 07/01/07.
- b) The CB's are over-stressed only when the 66kV Bus Sectionalizing CB's are closed, which would take place during the outage of any of the existing 220/66kV Transformer Banks

SCE will implement an Operating Procedure to take the GBU Generation off the System under the outage of any one of 220/66kV 1A, 3A or 4A Transformer Banks.

- The replacement of the following [REDACTED] 66kV CB's are due to pre-project conditions:
[REDACTED] – Approximate Cost: \$1,692,000

[REDACTED]

WHOLESALE DISTRIBUTION ACCESS TARIFF
LARGE GENERATOR INTERCONNECTION

OPERATIONAL STUDY
TRANSMISSION ASSESSMENT

December 21, 2006



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Transmission & Interconnection Planning

[REDACTED]

OPERATIONAL STUDY

INTRODUCTION

[REDACTED] applied to the Southern California Edison - Transmission and Distribution Business Unit (TDBU) for Interconnection pursuant to Wholesale Distribution Access Tariff (WDAT). [REDACTED] proposed to interconnect a new 47.1 MW generation project [REDACTED] to the 66kV bus at [REDACTED]. The in-service date proposed by [REDACTED] is July 2, 2007. *The study accuracy and the results for the assessment of the system adequacy are contingent on the accuracy of the technical data provided by [REDACTED].*

Southern California Edison's Transmission & Interconnection Planning (SCE - TIP) has already performed a System Impact Study (SIS) dated December 18, 2006. This Operational Study is being performed to determine the adequacy of SCE's Transmission System to accommodate the [REDACTED]. The study indicates that the system is adequate to accommodate the 47.1 MW of generation without Transmission System modifications for the 2007 Heavy Summer scenario. A Facilities Study may still be required for the [REDACTED] to address any Distribution System related operational requirements.

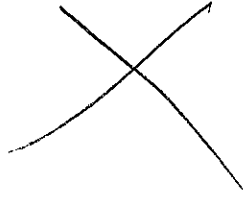
SYSTEM CONDITIONS AND STUDY ASSUMPTIONS

To simulate the SCE Transmission System for analysis, the study selected the databases that were used to conduct the 2007-2016 SCE Expansion Plan. The 2007 Heavy Summer scenario utilized the following assumptions:

Queued Generation included in study for 200

TOT/WDAT #
TOT101
TOT138
TOT037
TOT127
WDT179
WDT190
WDT223
TOT032
WDT230
WDT233
WDT231
WDT229
WDT236
WDT235
TOT135
TOT132

Key Case Factors:



POWER FLOW STUDY RESULTS

The power flow study results show that no overloading problems are found on the transmission lines for base-case, N-1 and N-2 contingencies. Specifically:

Base Case (Summer 2007 Conditions)

There were no base case overloads attributed to [REDACTED]

Single Contingencies (Summer 2007 Conditions)

There were no single contingency overloads attributed to [REDACTED]

Double Contingencies (Summer 2007 Conditions)

There were no double contingency overloads attributed to [REDACTED]

TRANSIENT STABILITY AND POST TRANSIENT STUDIES

SCE used study findings from earlier Interconnection Studies for large projects electrically proximate to this project and concluded that there are no transient stability and post transient impacts to the SCE transmission system from this proposed project.

SHORT CIRCUIT DUTY STUDY

The data provided by [REDACTED] has been used to study the Short Circuit Duty contribution by the project on the affected Transmission System substation circuit breakers. The addition of the Project has impacted multiple 500 kV and 230 kV substations with increases in the Short Circuit Duty.

THREE-PHASE FAULT DUTY

The addition of the project has impacted [REDACTED] 500kV substations and [REDACTED] 230kV substations with short circuit duty increases greater than 0.1kA

Bus No
Serrano
Alamitos
Center
Del Amo
Ellis
Hinson
Hunting Beach
La Fres
Laguna
Lewis
Mesa
Olinda
Padua
Pastoria
Redond
Serrano
Sylmar
Walnut

SINGL

The ad
duty in

Bus Name
Center
Del Amo
El Nido
Hinson
Hunt. Bch. B
Lewis
Sanilago
Serrano
Walnut

Apparatus Engineering has determined that the existing circuit breakers at all of the affected substations, identified above, meet the duty required for the 2007 Heavy Summer operational scenario.

SCOPE OF WORK

The scope of work to accommodate the generation interconnection on the SCE Transmission System for the 2007 Heavy Summer scenario is listed below. This study has not assumed overload or short circuit mitigation requirements for projects ahead of it in the queue.

No SCE Transmission System related components (Circuit Breakers and Transmission Lines) are triggered by the [REDACTED] in the SIS or Operational Study. Distribution related components will be addressed by the Field Engineering Operational Study.

COST OF UPGRADES

There is no cost of upgrades for the Transmission System assigned to the project, at this time. However, the assignment of network upgrade costs could change if the interconnection queue changes.

Note: Study results may be affected by changes in other projects ahead of the queue in the area. A re-study may be required if there are changes in the project queue or the scope of projects ahead in the queue. All cost estimates are rough order of magnitude, and are non-binding cost estimates.

66kV System Operational Study Results

Appendix A

[REDACTED] applied to Southern California Edison ("SCE") Transmission and Distribution Business Units (TDBU) for distribution service under the terms of SCE's Wholesale Distribution Access Tariff ("WDAT"). [REDACTED] will own and operate a 47.13 MW generating facility [REDACTED] to be interconnected to a dedicated position at the Center 66 kV switchrack, Section "B," (Pos #26). Distribution service pursuant to the WDAT is proposed to be from the [REDACTED] to the California Independent System Operator ("ISO") grid at SCE's 230 kV Center Substation. The proposed in-service date of the [REDACTED] is July 2, 2007.

As requested by [REDACTED], SCE performed an Operational Study to identify the general electrical system impacts of the [REDACTED] and the required mitigation measures to maintain conformance with SCE, ISO, or other applicable reliability planning criteria, and non-binding order of magnitude cost estimates for these mitigation measures.

The Study Conditions and Methodology are similar to those in the System Impact Study except that the dataset used for the short-circuit study analysis represented all existing generation and all projects which are expected to be on line by July 2, 2007 (including the [REDACTED]). Substations where the [REDACTED] increased short-circuit duties (three phase or phase to ground) by 0.1 kA or more were flagged, and circuit breaker interrupting capabilities were reviewed at these substations to determine if any circuit breakers required replacement as a result of the [REDACTED].

The Operational Study showed that, with the [REDACTED] plant on-line:

- Four (4) 66 kV circuit breakers will need to be replaced due to the [REDACTED]

Table 1: Short-Circuit Duty Summary

3-Phase SCD	Single-Line-To-Ground
-------------	-----------------------

Non-binding order of magnitude cost estimates for the required interconnection facilities and system upgrades are as follows:

Interconnection (Substation and 66kV interconnection tie)	\$ 1.08M
RTU installed at [REDACTED]	\$ 0.05M
Circuit breaker replacements	\$ 0.75M
35% ITCC Tax	\$ 0.66M
Total non-binding order of magnitude cost estimate	\$ 2.54M

Additional system studies (i.e., transient stability) will not be required unless requested by a third party. Refined cost estimates will be developed in a subsequent Facilities Study if requested [REDACTED]. Non-binding cost estimate does not include any GO 131D costs.

EXHIBIT A



and

**66kV kV GENERATION
TRANSFORMER BANK LEADS**

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EXHIBIT B

**TRANSMISSION
SYSTEM IMPACT STUDY
EXECUTIVE SUMMARY**

[REDACTED]

SYSTEM IMPACT STUDY

December 18, 2006



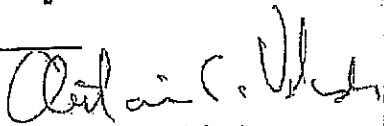
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for

EXECUTIVE SUMMARY

INTRODUCTION

[REDACTED] applied to the Southern California Edison Transmission Distribution Business Unit (TDBU) for Interconnection pursuant to Wholesale Distribution Access Tariff (WDAT). [REDACTED] proposed to interconnect a new 47.1 MW generation project [REDACTED] to the 66kV bus at [REDACTED]. The in-service date proposed by [REDACTED] is July 2, 2007. *The study accuracy and the results for the assessment of the system adequacy are contingent on the accuracy of the technical data provided by [REDACTED]*

Southern California Edison Company (SCE) has performed a System Impact Study (SIS) to determine the adequacy of SCE's transmission system to accommodate the [REDACTED]. The results of the SIS will be used as the basis to determine project cost allocation for facility upgrades in the Facilities Study. The study indicates that the system is adequate to accommodate the 47.1 MW of generation without transmission line modifications. However, Circuit Breaker replacements, for greater capacity, are required. A Facilities Study will be required for the [REDACTED].

RESULTS / CONCLUSION

POWER FLOW STUDY

The power flow study results show that no overloading problems are found on the transmission lines for base-case, N-1 and N-2 contingencies. Specifically:

Base Case (spring and summer Conditions)

There were no base case overloads attributed to [REDACTED]

Single Contingencies (spring and summer Conditions)

There were no single contingency overloads attributed to [REDACTED]

Double Contingencies (spring and summer Conditions)

There were no double contingency overloads attributed to [REDACTED]

TRANSIENT STABILITY AND POST TRANSIENT STUDIES

SCE used study findings from earlier Interconnection Studies for large projects electrically close to this project and concluded that there are no negative transient stability and post-transient impacts to the SCE transmission system from this proposed project.

SHORT CIRCUIT DUTY STUDY

3-PHASE FAULT DUTY

The addition of the project has impacted [REDACTED] 500kV substations and [REDACTED] 230kV substations with short circuit duty increases greater than 0.1kA.

SINGLE - LINE TO GROUND FAULT DUTY

The addition of the project has impacted [REDACTED] 500kV substations and [REDACTED] 230kV substations with short circuit duty increases greater than 0.1kA.

SCOPE OF WORK

No SCE Transmission System related components (Circuit Breakers and Transmission Lines) are triggered by the [REDACTED]. Distribution related components will be addressed by the Field Engineering SIS. [REDACTED] is only exposed to Case B cost triggered by projects ahead of [REDACTED] in the queue.

Power Flow Study Conclusions

BASE CASE (spring and summer conditions)

There were no base case overloads attributed to [REDACTED].

SINGLE CONTINGENCIES (spring and summer conditions)

There were no single contingency overloads attributed to [REDACTED].

DOUBLE CONTINGENCIES (spring and summer conditions)

There were no double contingency overloads attributed to [REDACTED].

Transient Stability and Post Transient Studies

SCE used study findings from earlier Interconnection Studies for large projects electrically close to this project and concluded that there are no negative transient stability and post - transient impacts to the SCE transmission system from this proposed project.

Short Circuit Duty Study Conclusions

3-PHASE FAULT DUTY

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COST OF UPGRADES

No overload problems were identified for [REDACTED]. This project did not increase any existing loading by 1% or more.

Engineering has evaluated the circuit breakers at all substations where the project contributed to the Short Circuit Duty results in an increase of 0.1kA or greater.

Circuit breaker replacements and upgrades to accommodate the generation interconnection on the SCE network are listed below. This study has not assumed overload mitigation requirements for projects ahead of the queue. The total cost of 48,435,000 was not triggered by the [REDACTED] and only shown as maximum exposure in case of changes in the queue.

The following cost are given in Year 2008 Level Dollars and do not include 35% ITCC Tax.

CASE B - Triggered by earlier Projects ahead of [REDACTED] in Application Queue

STATION	SYSTEM	Replace	Upgrade	Sets of TRV's required	Cost of CB	Cost of TRV set of 3	Sub-Total CB	Sub-Total TRV	GRAND TOTAL
Barre	220kV		8	5		\$ 144,000	\$ -	\$ 720,000	\$ 720,000
Etiwanda*	220kV	24			\$ 629,000		\$ 15,096,000	\$ -	\$ 15,096,000
Hinson	220kV	4	6	8	\$ 476,000	\$ 144,000	\$ 1,904,000	\$ 1,152,000	\$ 3,056,000
La Fresa	220kV		4	4		\$ 144,000	\$ -	\$ 576,000	\$ 576,000
Lag. Bell	220kV	2	14	9	\$ 476,000	\$ 144,000	\$ 952,000	\$ 1,296,000	\$ 2,248,000
Mesa *	220kV	23			\$ 629,000		\$ 14,467,000	\$ -	\$ 14,467,000
Mira Loma *	220kV	12			\$ 629,000		\$ 7,548,000	\$ -	\$ 7,548,000
Redondo	220kV		12	8		\$ 144,000	\$ -	\$ 1,152,000	\$ 1,152,000
		65	44				\$ 39,967,000	\$ 4,896,000	\$ 44,863,000

*Additional costs of upgrading the Etiwanda, Mira Loma and Mesa 220kV Switchyards to 83kA is approximately \$15,000,000 at each location.

**Requires SCE's Field Engineering concurrence.

Note: Study results may be affected by changes in other projects ahead of the queue in the area. A re-study may be required if there are changes in the project queue or the scope of projects ahead in the queue. All cost estimates are rough order of magnitude, and are non-binding cost estimates.

[REDACTED] - Elements for Case A

Cost Estimate Summary (2007 Dollars)

Scope:
Interconnect 47.21MW of Net Generation to the SCE Center Substation 66KV Bus.

ELEMENT	INTERCONNECTION FACILITIES	DISTRIBUTION SYSTEM UPGRADES	RELIABILITY UPGRADES	Income Tax Component of Contribution *	ONE TIME PAYMENT
[REDACTED] - 66KV Line Position	\$ 150,000	\$ 1,197,000	\$ -	\$ 471,000	\$ 1,818,000
[REDACTED] - 66KV Gen. Transformer Bank Leads	\$ 272,000	\$ -	\$ -	\$ 96,000	\$ 368,000
Telecommunications - Line Protection	\$ 293,000	\$ -	\$ -	\$ 103,000	\$ 396,000
Power Systems Control - RTU	\$ 33,000	\$ -	\$ -	\$ 12,000	\$ 45,000
Power Systems Control - Upgrades	\$ -	\$ 4,000	\$ -	\$ 1,000	\$ 5,000
Substations Automation - Upgrades	\$ -	\$ 8,000	\$ -	\$ 3,000	\$ 11,000
TOTAL	\$ 748,000	\$ 1,209,000	\$ -	\$ 686,000	\$ 2,643,000

Additional Elements for Case B

Cost Estimate Summary (2008 Dollars)

Scope:
Replace [REDACTED] and upgrade [REDACTED] Circuit Breakers at nine locations and upgrade [REDACTED] 220KV Switchyards to 80kA Rating.

ELEMENT	INTERCONNECTION FACILITIES	DISTRIBUTION SYSTEM UPGRADES	RELIABILITY UPGRADES	Income Tax Component of Contribution *	ONE TIME PAYMENT
Barre Sub. - Upgrade [REDACTED] 220KV CB's	\$ -	\$ -	\$ 720,000	\$ -	\$ 720,000
Eitwanda Gen. Sta. - Replace [REDACTED] 220KV CB's	\$ -	\$ -	\$ 15,096,000	\$ -	\$ 15,096,000
Hinson Sub. - Replace [REDACTED] & Upgrade [REDACTED] 220KV CB's	\$ -	\$ -	\$ 3,056,000	\$ -	\$ 3,056,000
La Fresa Sub. - Upgrade [REDACTED] 220KV CB's	\$ -	\$ -	\$ 576,000	\$ -	\$ 576,000
Laguna Bell Sub. - Replace [REDACTED] & Upgrade [REDACTED] 220KV CB's	\$ -	\$ -	\$ 2,248,000	\$ -	\$ 2,248,000
Mesa Sub. - Replace [REDACTED] 220KV CB's	\$ -	\$ -	\$ 14,467,000	\$ -	\$ 14,467,000
Mira Loma Sub. - Replace [REDACTED] 220KV CB's	\$ -	\$ -	\$ 7,548,000	\$ -	\$ 7,548,000
Redondo Gen. Sta. - Upgrade [REDACTED] 220KV CB's	\$ -	\$ -	\$ 1,152,000	\$ -	\$ 1,152,000
Center Sub. - Replace [REDACTED] 66KV CB's	\$ -	\$ -	\$ 3,572,000	\$ -	\$ 3,572,000
Eitwanda Gen. Sta. - Upgrade 220KV Switchyard to 80kA Rating **	\$ -	\$ -	\$ 15,000,000	\$ -	\$ 15,000,000
Mesa Sub. - Upgrade 220KV Switchyard to 80kA Rating **	\$ -	\$ -	\$ 15,000,000	\$ -	\$ 15,000,000
Mira Loma Sub. - Upgrade 220KV Switchyard to 80kA Rating **	\$ -	\$ -	\$ 15,000,000	\$ -	\$ 15,000,000
TOTAL	\$ -	\$ -	\$ 92,715,000	\$ -	\$ 92,715,000

This document includes confidential trade secrets and proprietary information of Southern California Edison, to be used only by the [REDACTED] in connection with its evaluation of this Facility Study Proposal. Southern California Edison retains all rights to maintain the confidentiality of this information and requests that [REDACTED] its confidentiality.

* ITCC tax (calculated at 35%) is collected via Letter of Credit.
 ** Pursuant to FERC Order 2003A, there will be no ITCC collected on Reliability Upgrades.