

SOUTHERN CALIFORNIA EDISON COMPANY

FACILITIES STUDY



AUGUST 31, 2007

Prepared by:

Edgardo A. Romero

Approved by:

Charles E. Nieto

Table of Contents

Description	Page
I. Executive Summary.....	3
II. Transmission System Impact Study Results.....	3
III. Sub-Transmission System Impact Study Results.....	5
IV. Facilities Study Assumptions.....	5
V. Facilities Study Scope and Cost Estimate.....	6
V – A. Facilities Study Scope.....	6
V – B. Facilities Study Cost Estimate.....	7
VI. Project Timeline.....	8
VII. Conclusions.....	8
VIII. ADDENDUM – Operational Studies Results	
IX. Exhibits	
Exhibit A [REDACTED] 66kV Gen. Transformer Bank Leads and Telecommunications Channels for SPS	
Exhibit B Transmission SIS Executive Summary	
Exhibit C Sub-Transmission SIS Executive Summary	
Exhibit D CAISO Letter to SCE (Robert Lugo) dated 01/26/07	
Exhibit E Earlier Interconnections – Application Queue	
Exhibit F Facilities Study Scope – Additional Details	
Exhibit G Cost Summary	

I. Executive Summary

[REDACTED] applied to Southern California Edison (SCE) for the interconnection of 45MW 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 [REDACTED] 13.8kV [REDACTED] maximum Operating Output of 47.21MW, and one 45MVA 66/13.8kV step-up Transformer Bank to interconnect the generation to the SCE 66kV System.

The [REDACTED] will be installed at the South / East corner of [REDACTED] and will be connected to a dedicated 66kV Line Position via new 66kV Generation Transformer Bank Leads.

However, only a portion of the facility would fit inside the existing station perimeter fence and [REDACTED] will be responsible for the acquisition of any additional land required outside the station perimeter fence as well as all site preparation and relocation of the station access road.

At this time, without the benefit of final Engineering and Design of the Project, it is anticipated that the installation of the Peaker would require relocation of the following [REDACTED] 66kV Lines:

[REDACTED]

[REDACTED] requested an interconnection date of July 2, 2007 for either the [REDACTED]. At this time SCE is presently working on the Engineering and Design of the [REDACTED] and the [REDACTED] is considered an alternative to be used only if the [REDACTED] is rendered unfeasible. For this reason, if it turns out that the [REDACTED] is required, it is expected it would be completed by September 1, 2008.

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 [REDACTED] on a letter to SCE (Robert Lugo) dated January 26, 2007.

- **SEE EXHIBIT A: [REDACTED] 66kV GEN. TR. BK. LEADS and TELECOMMUNICATIONS CHANNELS FOR SPS.**
- **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 overloads.
2. The Project aggravates two pre-existing N – 1 and two pre-existing 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 increases the [REDACTED] – Phase and / or Single Phase to Ground Short Circuit Duties by 0.1kA or more at the following [REDACTED] 220kV locations:

[REDACTED]

The Tr [REDACTED] at the following pre-project contingency overloads which are aggravated

1.

-
-

2.

PLEASE NOTE:

Although this Project aggravates a pre-project overload, the earlier overloads would be eliminated by the upgrades of substation terminal equipment addressed as Item 1 of the Proposed Solution.

However, the additional need for the SPS addressed as Item 2 of the Proposed Solutions is due to the fact that the Project increased the N – 1 loading from 3704A, which is lower than the Conductor N – 1 Rating of 3710A, to 3752 A, which is higher than 3710A.

For this reason, the need for the SPS is triggered by the Project.

The Transmission SIS considered a total of one hundred and fifty nine 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 Transmission SIS concluded that a Facilities Study would be required to determine the scope of work and cost estimates for the required system upgrades.

III. Sub-Transmission System Impact Study Results

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 increases the Three – Phase and / or Single Phase to Ground Short Circuit Duties by 0.1kA or more at the following thirteen 66kV locations:

[REDACTED]

The Sub-Transmission SIS concluded that a Facilities Study would be required to determine the scope of work and cost estimates for the required interconnection facilities.

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.
 - [REDACTED] Line Current Differential Relay.
- D. The following SPS Relays and corresponding Telecommunications terminal equipment, to be installed at Sylmar Substation, presently owned, operated and maintained by LADWP, will be specified by SCE and provided by [REDACTED] and are not included in the Facilities Study.
 - [REDACTED] Relays.
- E. Any required replacements or upgrades of line termination equipment that may be needed at [REDACTED] presently owned, operated and maintained by LADWP are not included in the Facilities Study.
- F. The required [REDACTED] Terminal Equipment to be installed at [REDACTED] presently owned, operated and maintained by LADWP will be installed by SCE and it is included in the Facilities Study.
- G. All required site preparation outside the [REDACTED] perimeter fence will be performed by [REDACTED] and is not included in the Facilities Study.

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:

- [REDACTED] Equip the existing Switchyard Position 23 as a Double – Breaker 66kV Line Position to terminate the [REDACTED] 66kV Generation Transformer Bank Leads.
- [REDACTED] Relocate the existing 66kV No.2 Capacitor Bank from its existing location at the east end of the south 66kV Bus to a new location at the west end of the north 66kV Bus. Also relocate the existing Pilot Wire Terminal Rack north of its existing location, remove the existing oil tanks presently at the east side of the 66kV Switchyard and relocate the existing driveway along the east side of the 66kV Switchyard to the west of its existing location.
- [REDACTED] Install SPS Relays and associated Telecommunications equipment.
- [REDACTED] Install SPS Relays and associated Telecommunications equipment.
- [REDACTED] Install [REDACTED] Circuit Ft. of new 66kV Line with 336.4KCMIL, ACSR Conductors from the [REDACTED] [REDACTED] to the [REDACTED] 66kV Switchyard Pos.23.
- [REDACTED] lines Relocate [REDACTED] 66kV Lines presently running along the south side of the station away from the proposed [REDACTED]

- Telecommunications

Install [REDACTED] channels on diverse paths from the [REDACTED] Substation to support new 66kV [REDACTED] Transformer Bank Leads protection scheme and the RTU.

Relocate existing overhead pilot wire circuits presently running along the east side of the station away from the proposed [REDACTED]

Also relocate the existing underground segments of pilot wire circuits presently running to the pilot wire terminal cabinet to the relocated terminal location.

Also install dual digital channels from Pardee to [REDACTED] and related terminal equipment to support SPS requirements.

- Power System Control

Install new RTU at the Generating Facility and modify the existing RTU at [REDACTED]

CASE B:

- Pardee Substation

Replace [REDACTED] 2000A 220kV Circuit Breakers on the Sylmar No.1 Line Position with 3000 Rated units and the [REDACTED] 3000A 220kV Wave Trap [REDACTED] and No.2 Line Positions with 4000A Rated units.

Circuit Breakers Evaluation

The Facilities Study evaluated 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 total of [REDACTED] 220kV CB's [REDACTED] locations and [REDACTED] 66kV CB's at [REDACTED] locations.

The circuit breaker evaluation determined that all circuit breakers are adequate and no replacements or upgrades are required.

- **SEE EXHIBIT F: 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 in the Facilities Study Scope is as follows:

CASE A:	\$7,828,000
CASE B (May be added to Case A):	<u>\$1,166,000</u>
POSSIBLE MAXIMUM COST EXPOSURE:	\$8,994,000

- **SEE EXHIBIT G: COST SUMMARY.**

VI. Project Timeline

1. At this time there is no final Project Schedule for this interconnection due to the fact that, at this time the [REDACTED] is considered and alternative to be used only if the [REDACTED] is rendered unfeasible. For this reason, if it turns out that the [REDACTED] Interconnection is required, it is expected it would be completed by September 1, 2008.
2. For the purpose of this Facilities Study all system upgrades are also shown in 2008 Dollars but they may be postponed beyond 2008 if the System does not require them until later.
3. 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 system upgrades will actually be required.

VII. Conclusions

- A. The estimated cost for the Interconnection is approximately \$7,828,000 for Case A with the potential additional cost of \$1,166,000 for Case B for a total Maximum Exposure of \$8,994,000.
- B. The costs indicated in the Cost Summary are shown 2008 Dollars and are not firm. All costs have been estimated without the benefit of final engineering and they 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 and all the necessary billing adjustments will be made at that time.

EXHIBIT A

[REDACTED]

[REDACTED]

TRANSFORMER BANK LEADS

and

TELECOMMUNICATIONS CHANNELS

FOR SPS

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CEII REGULATIONS

EXHIBIT B

TRANSMISSION SYSTEM IMPACT STUDY EXECUTIVE SUMMARY

[REDACTED]

WHOLESALE DISTRIBUTION ACCESS TARIFF

SYSTEM IMPACT STUDY
TRANSMISSION ASSESSMENT

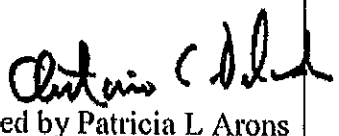
December 18, 2006



SOUTHERN CALIFORNIA
EDISON[®]
An EDISON INTERNATIONAL[®] Company

Prepared by
Yan Zou

Southern California Edison Company


Approved by Patricia L. Arons
for

[REDACTED]

SYSTEM IMPACT STUDY - TRANSMISSION ASSESSMENT

EXECUTIVE SUMMARY

[REDACTED] proposed to install 5 peaking generating stations on its distribution or sub-transmission grid. The installation of up to 250 MW peaking generation was directed by California Public Utilities Commission (CPUC) to meet the reliability requirement for summer 2007. [REDACTED] is one of the five peaking generating stations. The Project will consist of a [REDACTED] simple cycle gas turbine, with a maximum operating output of 47.21 MW. The interconnection point is [REDACTED]. The delivery point to the ISO Grid is a [REDACTED]. The in-service date proposed by [REDACTED] is [REDACTED].

SCE has performed a System Impact Study to determine the adequacy of SCE's transmission system to accommodate the Project. The study found the following:

- The system is adequate to accommodate the Project under 2007 [REDACTED] conditions per the operational queue.
- The system is adequate to accommodate the Project under [REDACTED] conditions per the application queue.
- The system is not adequate to accommodate the Project under Of [REDACTED] conditions without modification per the application queue.

A facilities study will be required for the Project.

The results of the System Impact Study will be used as the basis to determine project cost allocation for facility upgrades in the Facilities Study. *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].* Any changes from the attached data could void the study results. SCE's Field Engineering department has performed a System Impact Study on the SCE affected distribution network.

STUDY RESULTS

A. Power Flow Study Conclusions

1) Operational Queue Study

There were no overloads identified.

2) Application Queue Study

Base case

Under both [REDACTED] conditions, there was no base case overload identified.



B. Short Circuit Study Conclusions

1) Operational Queue Study

The 3-phase short circuit duty is increased by 0.1 kA or more at three 230 kV substations. The 1-phase short circuit duty is increased by 0.1 kA or more at three 230 kV substations. Engineering concluded that no CB replacements or upgrades are triggered by the Project on the [REDACTED]

2) Application Queue Study

The 3-phase short circuit duty is increased by 0.1 kA or more at four 230 kV substations. The 1-phase short circuit duty is increased by 0.1 kA at four 230 kV substations. Engineering concluded that no CB replacements or upgrades are triggered by the Project on the [REDACTED]

SCOPE OF WORK FOR FACILITIES STUDY

A. Interconnection Facilities:
Refer to Field engineering System Impact Study Report.

B. Transmission Upgrades (Case A: Triggered Cost)
There are no transmission upgrades triggered by the Project.

C. Transmission Upgrades (Case B: All Cost)
There are other transmission upgrades to fix the overloads triggered by the projects in queue ahead of the Project. There upgrades will accommodate the Project. These upgrades include the following:

- 1) Upgrade Pardee-Sylmar No.1 and 2 lines.
 - Replace [REDACTED] wave traps with new 4000A rated at SCE Pardee end at a cost of \$172,000 total (not subject to ITCC tax).
 - Replace [REDACTED] wave traps [REDACTED] circuit breakers and [REDACTED] disconnect switches with new 4000A rated at LADWP Sylmar end, cost to be determined by LADWP.
- 2) The following Circuit Breakers need to be replaced or upgraded:
 - Application Queue: [REDACTED] CB at Vincent 220 kV at a total cost of \$288,000 (not subject to ITCC tax).

Note:

- a. The above cost estimates are order of magnitude estimates subject to change based on results of the Facilities Study.
- b. Study results may change due to other projects ahead of the queue in the area. A new study may be required if projects ahead of the queue are changed.

COST ESTIMATE

The nonbinding cost Estimates associated with the transmission upgrades identified to be triggered by the Project is \$0.

The nonbinding cost estimates associated with the transmission upgrades identified to be triggered by prior projects in the queue is \$460,000 (excluding ITCC tax) as specified in Item 3 under "Scope of Work for Facilities Study".

EXHIBIT C

SUB-TRANSMISSION SYSTEM IMPACT STUDY EXECUTIVE SUMMARY

[REDACTED]
[REDACTED]
[REDACTED]

WDT 235

SYSTEM IMPACT STUDY

December 22, 2006

Prepared by:

Audel De La Torre – Distribution Engineering



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Approved by:

Alicia Lopez
Engineering Manager

EXECUTIVE SUMMARY

[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 47.2 MW generating facility [REDACTED] to be interconnected at the 66kV bus at [REDACTED]. Distribution service pursuant to the WDAT is proposed to be from [REDACTED] to the California Independent System Operator (ISO) grid at SCE's 66kV [REDACTED]. The proposed in-service date of the [REDACTED] is June 1, 2007.

The [REDACTED] is a generation system consisting of [REDACTED] 13.8 kV, 71.2 KVA General [REDACTED] package which will include: Selective Catalytic Reduction, Gas Compressor, Water Injection, Black Start Capability, and Continuous Emissions Monitoring System, with a net generation export of 47.2 MW. The generation facility will utilize [REDACTED] 45 MVA, 13.8 kV/66 kV step-up transformer to interconnect to the generator to SCE's system. As requested by [REDACTED] SCE performed a System Impact Study to identify the general electrical system impacts of the [REDACTED] possible 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 System Impact Study consisted of a power flow analysis, three-phase analysis and single-line-to-ground short circuit duty analysis to determine whether the energy associated with the [REDACTED] can be transmitted through SCE's system to the ISO grid at [REDACTED], without creating the need for modifications to SCE's system and/or the ISO grid. The study showed that, with the [REDACTED] Plant on-line:

- Thermal loadings on the SCE subtransmission facilities used to provide the requested WDAT service were all within criteria limits.
- No 66 kV circuit breakers and no 230 kV circuit breakers will need to be upgraded due to the [REDACTED]
- Appendix B details study results for the ISO-controlled transmission grid.

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

Interconnection (Substation and 66kV interconnection tie)	\$ 1.08 M
RTU installed at [REDACTED]	\$ 0.05 M
Circuit breaker replacements (66 kV, 230 kV)	\$ 0.00 M
35%ITCC	\$ 0.39 M
Total non-binding order of magnitude cost estimate	\$1.52 M

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 D

**CAISO LETTER TO SCE
(ROBERT LUGO) DATED 01/26/07**

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CEII REGULATIONS**

EXHIBIT E

EARLIER INTERCONNECTIONS – APPLICATION QUEUE

Application Queue

Project Name	Project Size (MW)
TOT005	830
WDT011	9
WDT034	2.1
WDT016	11.57
TOT022	16.5
WDT028	2.5
TOT023	3.71
1114	2.8
TOT015	45
TOT004	1000
TOT010	450
TOT018	750
WDT044	49.9
WDT014	5.6
WDT038	110
WDT040	17.1
WDT041	34
WDT042	40
TOT019	44.4
TOT021	22.2
TOT051	22.44
TOT032	850
TOT040	110
TOT041	280
WDT054	16.5

WDT072	10.5
TOT048	45.3
TOT056	90.6
WDT073	80
WDT075	39.6
WDT082	19.8
WDT080	28.5
TOT005	20
7019	1.5
WDT086	8
WDT085	2.4
WDT053	42.6
TOT067	330
WDT092	66
7033	6
7030	6
7044	2.25
2495	1.28
2502	2.7
7045	7.3
7034	2
7042	1
7068	47
WDT109	4.2
WDT110	5.6
WDT111	3.93
7056	2.12
WDT098	40

7057	1.3
2530	1.21
7075	2
7071	1.13
7036	3.8
2535	1
2521	10.6
EAK049	134
2529	2.28
2522	1.06
7070	5.74
2538	14.66
2540	1.1
7088	8
WDT118	9
WDT112	16.54
7084	2.4
TOT095	185
WDT019	45.5
TOT100	63
7094	1.4
7010	3.3
7100	1.5
7101	1.77
WDT133	48.3
WDT129	2.56
WDT123	8.73
WDT123	3

WDT123	6.75
2531	2.4
2546	4.9
TOT096	50
WDT124	32
WDT082	1.2
2543	1.1
TOT079	520
TOT102	65
TOT108	300
WDT147	45.6
TOT109	72
TOT111	17
TOT112	82
WDT131	8.4
TOT113	201
TOT117	300
TOT116	10
WDT163	5.6
WDT164	80
TOT119	157
WDT165	325
TOT120	100.5
WDT177	96
TOT121	599
WDT176	6.5
TOT037	810
TOT127	65

TOT129	1650
WDT179	49.9
TOT135	500.5
WDT182	507
TOT138	424.8
TOT131	850
TOT132	500
WDT190	49.9
TOT148	250
WDT205	99
TOT146	51
TOT149	610
TOT150	60
WDT213	49
TOT151	400
TOT152	120
TOT155	33
TOT156	34
TOT166	613.5
TOT160	570
TOT153	51
TOT154	570
TOT161	220
TOT164	180
TOT162	550
TOT163	600
TOT165	160
TOT167	120


TOT149	304
WDT221	8.5
TOT159	635
TOT157	600
TOT158	1400
CSDLA Puente Hills Project A	8
TOT171	150
TOT169	50
TOT170	150
WDT223	49.9
TOT172	550
TOT173	500
TOT174	1200
WDT227	102
WDT228	63
TOT175	300
WDT230	44.55
WDT233	47.21
WDT231	45.03
WDT229	47.13
WDT236	47.9
 WDT235	47.21

EXHIBIT F

FACILITES STUDY SCOPE – ADDITIONAL DETAILS

[REDACTED]

FACILITIES STUDY SCOPE – ADDITIONAL DETAIL

CASE A

A. Substations:

1. [REDACTED]

Equip existing 66kV [REDACTED] to terminate the new [REDACTED] Transformer Bank Leads in a double breaker configuration.

The work requires installation of the following equipment:

- [REDACTED] High by 22 Ft. Wide 66kV Line Dead End Structure
- [REDACTED] 200A 31.5kA circuit breakers and foundations.
- [REDACTED] group operated – vertically mounted disconnect switches mounted on the Line Dead End Structure – One of them equipped with grounding attachments.
- [REDACTED] group operated – horizontally mounted disconnect switches with support structures and foundations.
- [REDACTED] bus supports with individual support pedestals and foundations.
- [REDACTED] Voltage Transformers with support pedestals and foundations.
- 1590KCMIL ACSR conductors throughout the position.

Also install the following relays in the existing Relay Room:

- [REDACTED] Line Current Differential Relay with redundant Fiber Optic Communication Channels to the [REDACTED]
- [REDACTED] Directional Phase and Ground Over-current Relay.
- [REDACTED] LBFB Relays (One for each CB at 66kV Pos.23)
- [REDACTED] Communications Processor.

Also install approximately 500Ft. of 5-In. Dia. PVC Conduit for fiber optic communications wire between the [REDACTED] Room and the [REDACTED]

2. Goleta Substation – Relocations and Removals

- Relocate the existing No.2 66kV Capacitor Bank presently connected to the East end of the South 66kV Bus to the West end of the North 66kV Bus.
- Remove the [REDACTED] Oil Tanks presently placed to the east of the 66kV Switchyard
- Relocate the existing Pilot Wire Terminal Rack from its existing location South of the Microwave Tower to a new location just West of the same tower.

3. [REDACTED]

4. [REDACTED] – SPS

Install [REDACTED] Relays and [REDACTED] Satellite Synchronized Clock to support the required SPS.

B. Sub - Transmission Lines:

1. 66kV Generation Transformer Bank Leads

Install approximately 400 Circuit Ft. of single circuit line using 336.4KCMIL ACSR Conductors from the [REDACTED] Dead-End Rack to the existing Dead-End Structure at the [REDACTED] Position 23.

This construction requires the installation of two new 66kV Tubular Steel Poles and eighteen dead-end insulator / hardware assemblies with polymer insulators.

[REDACTED]
Relocate all four lines to the south of their present alignments to provide adequate clearances to the [REDACTED]

Preliminary estimates without the benefit of final engineering indicate that this work will require the installation of eight Tubular and [REDACTED] Light Weight Steel Poles.

C. Telecommunications:

1. 66kV Generation Transformer Bank Leads – Line Protection

Install approximately 1,000Ft. of underground fiber optic cables to form two diverse paths between the [REDACTED] Communications Room and the [REDACTED] Facility to support the Line Current Differential Relays and the RTU.

2. Relocation of Pilot Wires

Relocate the existing Pilot Wires to the new Pilot Wire Terminal Rack and also relocate the existing Pilot Wire presently running along the East side of the station away from the [REDACTED]

3. Special Protection Scheme

Install dual digital channels from [REDACTED] to Pardee and Sylmar and all required terminal equipment to support the installation of the SPS.

This installation requires the construction of approximately 25 Miles of new overhead fiber optic cable between Carpinteria and Santa Clara.

Existing facilities presently interconnecting [REDACTED] and Eagle Rock plus the Rincon Peak and South Mountain Communication Sites will be used for all the remaining required channels.

It also requires the installation of new [REDACTED] Optical Multiplexer Terminals at [REDACTED] Santa Clara, Pardee and Eagle Rock Substations and Digital Channel Banks at [REDACTED] Pardee and Sylmar Substations.

D. Power System Controls:

1. Main RTU at Generating Facility.

Install a new full size real-time Remote Terminal Unit (RTU) at the [REDACTED] Facility to monitor the following elements:

- Net and Gross MW
- MVAR
- Amps on each phase
- Voltage at the Generator Bus
- Unit Status
- Unit Circuit Breaker Status

The RTU will be connected to the [REDACTED] Supervisory Control System (SCS) to collect the data described above. This information will be transmitted to [REDACTED] and from there to the Moorpark Regional Control Center (RCC). The RTU will use Distributed Network Protocol (DNP) to communicate with the RCC.

2. Existing RTU at [REDACTED]

Upgrade the RTU at [REDACTED] to add points as needed to monitor and control all new elements required for the 66kV Generation Transformer Bank Leads at 66kV [REDACTED]

[REDACTED]

FACILITIES STUDY SCOPE – ADDITIONAL DETAIL
ADDITIONAL ELEMENTS FOR CASE B

A. Substations:

1. [REDACTED]

Replace [REDACTED] 2500A Rated Circuit Breakers on the Sylmar No.1 220kV line Position with new 3000A Rated units.

Replace [REDACTED] 3000A Wave Trap on the Sylmar No.1 220kV line Position with a new 4000A Rated unit.

Replace [REDACTED] 3000A Wave Trap on the Sylmar No.2 220kV line Position with a new 4000A Rated unit.

NOTE:

All line termination equipment at [REDACTED] is owned, operated and maintained by the Los Angeles Department of Water and Power (LADWP) and any replacements or upgrades that may be required at this facility are not included in this SCE Facilities Study.

E. A. ROMERO
08/31/07

EXHIBIT G

COST SUMMARY

Additional Elements for Case A

Cost Estimate Summary (2008 Dollars)

Scope:

Interconnect 47.21 MW of Net Generation to the [REDACTED] 66kV Bus.

ELEMENT	INTERCONNECTION FACILITIES	DISTRIBUTION SYSTEM UPGRADES	RELIABILITY UPGRADES	Income Tax Component of Contribution *	ONE TIME PAYMENT
[REDACTED]	\$ 150,000	\$ 1,230,000	\$ -	\$ 483,000	\$ 1,863,000
- Relocations and Removals	\$ -	\$ 1,072,000	\$ -	\$ 375,000	\$ 1,447,000
- SPS Relays	\$ -	\$ -	\$ 193,000	\$ -	\$ 193,000
- SPS Relays	\$ -	\$ -	\$ 193,000	\$ -	\$ 193,000
Sub-Transmission - 66kV Gen. Transformer Bank Leads	\$ 193,000	\$ -	\$ -	\$ 68,000	\$ 261,000
Sub-Transmission - Relocation of four 66kV Lines	\$ -	\$ 1,500,000	\$ -	\$ 525,000	\$ 2,025,000
Telecommunications - Line Protection	\$ 376,000	\$ -	\$ -	\$ 132,000	\$ 508,000
Telecommunications - Relocation of Pilot Wires	\$ -	\$ 25,000	\$ -	\$ 9,000	\$ 34,000
Telecommunications - SPS	\$ -	\$ -	\$ 1,250,000	\$ -	\$ 1,250,000
Power Systems Control - RTU	\$ 34,000	\$ -	\$ -	\$ 12,000	\$ 46,000
Power Systems Control - Upgrades	\$ -	\$ 6,000	\$ -	\$ 2,000	\$ 8,000
TOTAL	\$ 753,000	\$ 3,833,000	\$ 1,636,000	\$ 1,606,000	\$ 7,828,000

Additional Elements for Case B

Cost Estimate Summary (2008 Dollars)

Scope:

Upgrade terminal equipment on the Sylmar No.1 and No.2 220kV T/L's at [REDACTED]

ELEMENT	INTERCONNECTION FACILITIES	DISTRIBUTION SYSTEM UPGRADES	RELIABILITY UPGRADES	Income Tax Component of Contribution *	ONE TIME PAYMENT
Pardee Sub. - Replace CB's and Wave Traps	\$ -	\$ -	\$ 1,166,000	\$ -	\$ 1,166,000
TOTAL	\$ -	\$ -	\$ 1,166,000	\$ -	\$ 1,166,000

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 you [REDACTED] in connection with its evaluation of this Facility Study Proposal.

* 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.

ADDENDUM

OPERATIONAL STUDIES RESULTS

SOUTHERN CALIFORNIA EDISON

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.

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

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.

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.

There are no Operational Studies prepared for an interconnection date in the year 2008.

The Operational Studies will need to be re-evaluated if the Project would be scheduled to go on line in 2008.

Operational Queue

Project Name	Project Size (MW)
WDT038	110
WDT044	49.9
WDT041	34
WDT040	17.1
TOT040	110
WDT075	39.6
WDT072	10.5
WDT086	8
WDT080	28.5
TOT010	450
TOT048	45.3
TOT056	90.6
WDT082	19.8
7068	47
WDT098	40
2538	14.66
TOT005	830
TOT005	20
WDT019	45.5
TOT102	65
WDT073	80
WDT131	8.4
WDT124	32
WDT133	48.3
TOT111	17

TOT112	82
TOT095	185
TOT018	750
TOT067	330
EAK049	134
WDT177	96
TOT004	1000
TOT109	72
WDT164	80
TOT127	65
WDT179	49.9
WDT190	49.9
WDT 223	49.9
WDT230	44.55
WDT233	47.21
WDT231	45.03
WDT229	47.13
WDT236	47.9
 WDT235	47.21