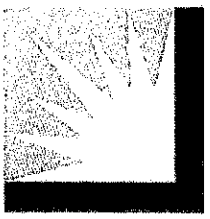
[redacted]

Facilities Re-Study

July 1, 2013



SOUTHERN CALIFORNIA
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[redacted]

Southern California Edison

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[redacted]

FACILITIES RE-STUDY

I. Executive Summary

[redacted] applied to Southern California Edison ("SCE") for distribution service under the terms of SCE's Wholesale Distribution Access Tariff ("WDAT"). [redacted] will own and operate a 20 MW photovoltaic solar power project, [redacted] to be constructed by [redacted]. The [redacted] power plant is to be located in Mojave, CA, with the project site located [redacted] of SCE's Windhub 66 kV Substation. [redacted] proposes to interconnect to Windhub 66 kV Substation. The requested in-service date for the project is [redacted]

A Subtransmission System Technical Assessment dated March 19, 2013 was prepared to address the new plan of service to interconnect the [redacted] Project to the Windhub 66 kV bus via new infrastructure provided by EKWRA.

FOR ADDITIONAL DETAIL REFER TO THE FOLLOWING EXHIBIT:

- **EXHIBIT A: SUBTRANSMISSION SYSTEM TECHNICAL ASSESSMENT**

II. Subtransmission System Technical Assessment Conclusion

New facilities provided by EKWRA can be used to interconnect queued generation projects in the area including the [redacted] Project. Though some interconnection facilities costs may be shared with a queued ahead project, the total cost responsibility of these facilities may fall on [redacted] if the queued ahead project ultimately does not move forward. The Second Circuit will initially be used as a radial interconnection but eventually will be extended all the way to Goldtown Substation. Therefore, SCE must own the line and tap substation used to interconnect the [redacted] Project.

III. Facilities Re-Study Assumptions

A. The [redacted] Project is [redacted] of Windhub Substation.
B. Any required upgrades at facilities not owned by SCE are not included in the Facilities Re-Study.
C. The schedule for the Environmental Impact Statement and/or Environmental Impact Report and all other regulatory filings required for the Project are not included in the Facilities Re-Study.

IV. Facilities Re-Study Scope and Cost Estimate

IV – A Facilities Re-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 in the Application Queue, and are expected to be implemented by them.

However, in the event that any of these earlier Projects withdraws or modifies their application in accordance with applicable tariff allowances, [redacted] may become responsible for any or all of these additional facilities.

NOTE: There are no CASE B facilities for the Project.

CASE A:

SCE will own, operate, construct, and maintain a new 66 kV single circuit breaker interconnection substation, a new 66 kV position at Windhub Substation, and the WDT435 – Windhub 66 kV line [redacted]. This line will be strung on existing double circuit structures. (Vacant side of the Goldtown – Windhub 66 kV double circuit structures with the exception of approximately 0.10 mile that will be underground.)

A SCD analysis was performed and found no circuit breaker upgrades are required to interconnect this project.

Substation:
WDT435 Substation
Install one new 66 kV interconnection facility with one 66 kV circuit breaker and one 66 kV overhead feed to the point of change of ownership.

Windhub Substation
Equip a 66 kV position with two circuit breakers, four sets of disconnect switches, dead-end structure, and protection relays.

Sub-Transmission:
Gen Tie Line
Install one engineered steel pole, one 66 kV remote controlled switch, and 200 circuit feet of conductor from the WDT435 Substation dead-end structure to the customer owned structure.

Tap Line
Install two tubular steel poles, three 66 kV remote controlled switches, and 400 circuit feet of conductor from the WDT435 Substation to the Q349/TOT314 – Windhub 66 kV line.

WDT435 – Windhub 66 kV Line
Install 4.5 circuit miles of 954 SAC on the vacant side of the existing Goldtown – Windhub 66 kV line from WDT435 Substation to Windhub Substation.

Information Technology:
Install lightwave, channel banks, cross connects and associated equipment at WDT435 Substation, Goldtown, and Windhub Substation communication room and extend diverse fiber optic cables from WDT435 to taps of the new fiber optic cables on the new Windhub – Goldtown 66 kV line.

Also, install fiber optic cables from Goldtown to Windhub Substations on the new Windhub – Goldtown 66 kV pole line.

Corporate Environmental, Health & Safety and Licensing:
Review and approve environmental study methodologies, resulting environmental documents, and draft environmental permit applications provided by [redacted]; obtain licensing and permits; and perform other required environmental activities related to WDT435 Substation, WDT435 – Windhub 66 kV line, tap line, gen-tie line, and telecommunication requirements. (See Exhibit B for detailed assumptions.)

Real Properties:
Provide mapping, survey, title work, land acquisition labor, and other activities related to WDT435 Substation, WDT435 – Windhub 66 kV line, tap line, and telecommunication requirements.

Power Systems Control:
Install one Remote Terminal Unit (RTU) at the customer's generating facilities to monitor generation data, weather data, and relay protection status alarms.

Add points to the RTU at Windhub Substation to monitor the new tie line data and associated circuit breakers, and relay protection status alarms.

Metering Services Organization:
Install, program, and test a revenue meter required to meter the retail load at the generating facility.

IV – 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.

NOTE: There are no CASE B facilities for the Project.

The total estimated cost, including ITCC, of all elements of the interconnection as identified above in the Facilities Re-Study Scope is as follows:

CASE A:	$	19,859,000
CASE B:	$	0
TOTAL MAXIMUM COST EXPOSURE:	$	19,859,000

SEE EXHIBIT C: COST SUMMARY

V. Conclusions

A. The estimated cost for the Interconnection is approximately $19,859,000 for Case A with the potential additional cost of $0 for Case B for a total Maximum Cost Exposure of $19,859,000.

B. The time required to complete the proposed project will be 24 months after receiving project authorization and funding. This time includes engineering, material procurement and construction. This timeframe is subject to final verification by SCE of available resources at the time of the Project construction. The 24 month period does not include the time required for the preparation of the Environmental Impact Statement and/or Environmental Impact Report as required per CEQA and NEPA as well as any other approvals and permits to be provided by the CPUC or other regulatory agencies.
A detailed Project Schedule will be provided during the Engineering and Design Phase of the Project.

C. The costs indicated in the attached tables are shown 2014 Dollars and are not firm. These are only preliminary estimates based on conceptual engineering and system unit costs, and are subject to change based on the final design and actual material costs. This Facilities Re-Study and cost estimates as presented are valid for a period of 90 days.

D. 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.

E. 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.

F. Although study results reflect no adverse impact on the high-voltage CAISO controlled transmission system with the addition of the [redacted] Project, the Interconnection Customer will still be required to adhere to all applicable WECC policies including, but not limited to, the WECC Generating Unit Model Validation Policy. For example, the Interconnecting Customer will be required to provide validated dynamic models for the proposed project within the timelines identified in the WECC policy. The latest policy is available on the WECC website at www.wecc.biz .

EXHIBIT A

SUBTRANSMISSION SYSTEM
TECHNICAL ASSESSMENT

[redacted]

Plan of Service Evaluation

Subtransmission System Technical Assessment

March 19, 2013

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Prepared by

Lionel Olivares

Southern California Edison Company

WDT435 – [redacted] Plan of Service Evaluation
Subtransmission System Technical Assessment
March 19, 2013

The East Kern Wind Resource Area ("EKWRA") 66 kV reconfiguration project was proposed by SCE in the CAISO 2010 Transmission Plan as a reliability project to address numerous reliability criteria violations in the existing Antelope-Bailey 66 kV network. This project was presented and recommended for approval by CAISO at the February 16, 2010 CAISO transmission plan stakeholder meeting with a proposed in-service date of December 2013. The proposed in-service date was recently updated to June 2014. The EKWRA project was approved by CAISO on April 8, 2010.

A portion of EKWRA scope included building a new 66 kV line directly north of Windhub substation toward Morwind substation to tap the Goldtown-Monolith-Windlands 66 kV line. During the engineering phase of the EKWRA project, this route was changed due to potential licensing challenges. The resulting scope would build a 66 kV line east toward the Goldtown substation along Oak Creek Road in order to tap the line. Several queued generation projects requesting interconnection to either the Windhub 66 kV Bus or 66 kV lines out of Goldtown substation are located in close proximity to the line route along Oak Creek Road and Goldtown substation. SCE Transmission Planning recognized this and requested that the 66 kV line design be double circuit construction with one side strung initially. Such design would provide the possibility of utilizing these facilities to accommodate queued generation projects in the area at minimal additional cost. Interconnection Customers (IC's) in this area, including WDT435, have recently inquired about utilizing these facilities to interconnect their projects.

The purpose of this technical assessment is to evaluate a new plan of service to interconnect WDT435 – [redacted] ("Project") to the Windhub 66 kV Bus via new infrastructure provided by EKWRA.

QUEUED AHEAD GENERATION PROJECTS

There are a number of active queued generation projects that are requesting interconnection to the Windhub 66 kV Bus. These projects are summarized below in Table 1..

Table 1.
Active Queued Generation Projects in the Windhub 66 kV System

CAISO/SCE ID	POI	MWs
Q079*	Windhub 66 kV Bus	51
Q091*	Windhub 66 kV Bus	51
Q348	Windhub 66 kV Bus	40
Q349	Windhub 66 kV Bus	100
WDT435	Windhub 66 kV Bus	20

* Project currently in-service

EKWRA AND THE PROPOSED PLAN OF SERVICE

The line to be built by EKWRA is a 66 kV line featuring double-circuit design that will travel from Windhub substation, east to Goldtown substation along Oak Creek Road. It will initially be built with only one circuit strung on one side of the double circuit structures. Figure 1 illustrates these facilities.

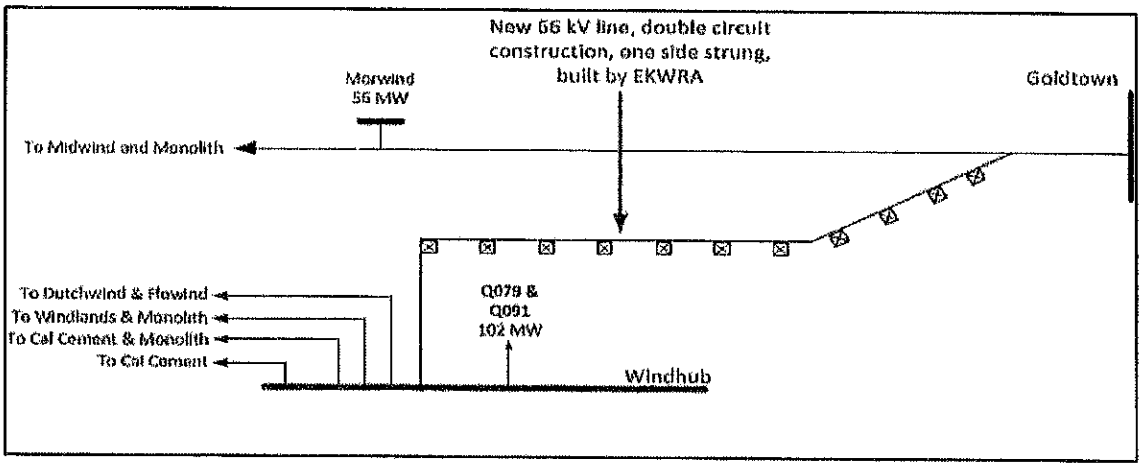

Figure 1. New Facilities Built By EKWRA

A new plan of service was developed that would utilize the unstrung side of the double circuit design infrastructure built by EKWRA to accommodate a new circuit (Second Circuit). Two projects requesting direct interconnection to the Windhub 66 kV bus (including [redacted] have inquired about utilizing this line to provide for the necessary gen-tie into the Windhub 66 kV Substation. If the project queued ahead of [redacted] ultimately decides to utilize the line, the cost of all facilities supporting the Second Circuit that are utilized by both projects would be "shared" between the parties. These "shared" costs include equipping a new 66 kV double breaker position at Windhub and the 66 kV conductor of the Second Circuit that is shared between the two projects. Costs directly assigned to the [redacted] Project consist of the cost to build a new substation connecting the [redacted] Project and the cost of the line conductor needed to tap connect the new substation to the shared portion of the Second Circuit. Initially, the Second Circuit would serve as a radial interconnection for the Project(s). However, in order to provide reliable service to the Goldtown substation and adjacent SCE facilities, SCE envisions that the Second Circuit would ultimately be extended to Goldtown substation. Therefore, to support this plan, SCE must not only own the Second Circuit on the new double-circuit design infrastructure being constructed as part of EKWRA but also the tap substation supporting the [redacted] Project. The use of this line as a radial connection solely for the Project would be temporary. If the queued ahead project does not move forward, [redacted] would be responsible for the cost to build the facilities from the Windhub Substation to the [redacted] Substation. Figure 2 shows this design.

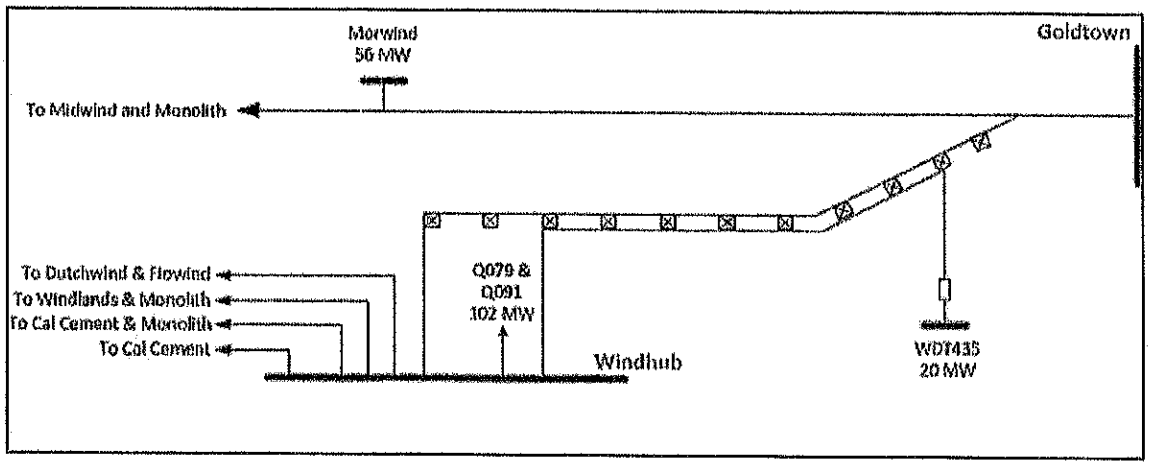

Figure 2. Radial 66 kV Line to WDT435

INTERCONNECTION FACILITIES

WDT435
Scope Assigned Solely to WDT435:

1. **Subtransmission**
   WDT435 Tap Line

2. **Substations**
   WDT435 Tapped Substation
   Install a 66 kV single circuit breaker tap substation to terminate the new WDT903 66 kV generation tie line.

   The distribution upgrade facilities are as follows:
   - Two (2) dead-end structures
   - One (1) 66 kV circuit breaker
   - Two (2) sets of disconnect switches
   - One (1) pair of protection relays
   - MEER

3. **Power System Controls**
   WDT435 Tapped Substation
   Install one (1) RTU at the new tapped substation to monitor typical elements such as MW, MVAR, terminal voltage, and circuit breaker status at each generating unit and the plant auxiliary load and to transmit this information to the SCE grid control center.

4. **Real Properties, Transmission Project Licensing, and Corporate Environmental Services**
   Obtain easements and / or acquire land, obtain licensing and permits and perform all required environmental activities for the installation of the following project elements if applicable:
   - WDAT435 Tap Substation Property
   - Tap and Generation Tie Line
   - Telecommunications requirements

Scope that may be Shared with other Project:

1. **Subtransmission**
   Windhub 66 kV Radial Line Extension
   - Install second 66 kV UG line across Oak Creek Road utilizing empty ducts installed as part of EKWRA
   - Install portion of second 66 kV OH circuit along Oak Creek Road on new double-circuit design infrastructure being installed as part of EKWRA to location of tap connection for WDT435

2. **Substations**
   Windhub Substation
   Equip one (1) 66 kV double –breaker position at Windhub Substation to terminate the Windhub 66 kV Radial Line Extension
   - Two (2) 66 kV circuit breakers
   - Four (4) sets of 66 kV disconnect switches
   - Protection Relays

3. **Telecommunications**
   Install all the required lightwave, channel, and associated equipment at Windhub and WDAT435 substations which support 66 kV line protection and SCADA.

CONCLUSION

New facilities provided by EKWRA can be used to interconnect queued generation projects in the area including the [redacted] project. Though some interconnection facilities costs may be shared with a queued ahead project, the total cost responsibility for these facilities may fall on the [redacted] project if the queued ahead project ultimately does not move forward,. The Second Circuit will initially be used as a radial interconnection but eventually will be extended all the way to Goldtown substation. Therefore SCE must own the line and tap substation used to interconnect the Project.

EXHIBIT B

CORPORATE ENVIRONMENTAL, HEALTH & SAFETY and LICENSING ASSUMPTIONS

[redacted](WDT435) Facilities Study
Facilities Study Assumptions

SCE is subject to the jurisdiction of the California Public Utilities Commission (CPUC) and must comply with CPUC General Order 131-D (GO 131-D) on the construction, modification, alteration, or addition of all electric transmission facilities (i.e., lines, substations, switchyards, etc.). This includes facilities to be constructed by others and deeded to SCE. In most cases where SCE's electric facilities are under 200 kV and are part of a larger project (e.g., an electric generation plant), GO 131-D exempts SCE from obtaining an approval from the CPUC provided:

- Its planned facilities have been included in the larger project's California Environmental Quality Act (CEQA) review.
- The review has included circulation with the State Clearinghouse.
- The project's lead agency (e.g., Kern County or other city) finds no significant unavoidable environmental impacts.

SCE or the project developer may proceed with construction after SCE has filed the notice with the CPUC and the public for the project's exempt status and the public has had a chance to protest SCE's claim of exemption.

If SCE's facilities are not included in the larger project's CEQA review, or if the project does not qualify for the exemption, SCE may need to seek approval from the CPUC (i.e., Permit to Construct) taking as much as 18 months or more since the CPUC would need to conduct its own environmental evaluation (i.e., Negative Declaration or Environmental Impact Report).

This study, including the associated cost summary and schedule, assumes that the project proponent will include SCE's facilities in its project description and application to the lead agency performing CEQA review on the project. The lead agency must consider the environmental impacts of the electrical interconnection facility, whether built by the developer with the intent to transfer ownership to SCE or to be built and owned by SCE directly. If the lead agency makes a finding of no significant unavoidable environmental impacts from construction of substation or under-200 kV power line facilities, SCE may be able to file an Advice Letter with the CPUC and publish public notice of the proposed construction of the facilities. Since the noticing process takes about 90 days if no protests are filed, it should be done as early as possible so that a protest does not delay construction. SCE has no control over the time it takes the CPUC to respond when issues arise. If the protest is granted, SCE may then need to apply for a formal permit to construct the project (i.e., Permit to Construct). Facilities built under this procedure must also be designed with consideration of electric and magnetic field (EMF) mitigation measures. For projects that are not eligible for the Advice Letter/notice process but have already undergone CEQA review, SCE would likely be able to file an "expedited" PTC application, which takes about 9-12 months to process.

Because SCE is subject to the jurisdiction of the CPUC, it must also comply with Public Utilities Code Section 851. Among other things, this code provision requires SCE to obtain CPUC approval of leases and licenses to use SCE property, including rights-of-way granted to third parties for Interconnection Facilities. Obtaining CPUC approval for a Section 851 application can take several months, and requires compliance with CEQA. SCE recommends that Section

851 issues be identified as early as possible so that the necessary application can be prepared and processed. As with GO 131-D compliance, SCE recommends that the project proponent include all facilities that may be affected by Section 851 in the lead agency's CEQA review so that the CPUC does not need to undertake additional CEQA review in connection with its Section 851 approval.

In addition, this study, including the associated cost summary, assumes that the Interconnection Customer will assume responsibility for performing environmental studies and preparing draft environmental permit applications related to the installation of SCE's facilities. SCE will review, and the Interconnection Customer will obtain SCE's approval of, proposed study methodologies and documents resulting from such studies.

Specifically, the Interconnection Customer will assume responsibility for contacting Native American contacts provided by the Native American Heritage Commission, performing cultural and paleontological resources records searches, performing cultural resources survey and site recording, performing site testing, developing cultural and paleontological study reports, performing a California Natural Diversity Database search, performing habitat assessments, performing protocol or focused surveys for species with the potential of occurring in identified suitable habitat, conducting jurisdictional delineations for wetlands or other regulated waters, preparing draft environmental permit applications related to regulatory programs not administered by the CPUC, and developing other environmental reports or submittals, if required, to support installation of SCE's facilities.

During the environmental study phase, the Interconnection Customer will be in routine contact with SCE, obtaining SCE's approval of proposed study methodologies and resulting documents, and informing SCE of its study findings and progress as the studies are being performed.

The resulting study documents will be incorporated into the CEQA document for the Interconnection Customer's project.

Should the environmental studies not meet the industry standards utilized in the State of California and/or by SCE in accordance with applicable laws and regulations, as determined by SCE, the Interconnection Customer will remedy deficiencies under SCE's direction. Otherwise, SCE will undertake additional environmental studies not identified as part of its scope in this Facilities Study at the sole expense of the Interconnection Customer. SCE will notify the Interconnection Customer of additional costs associated with such activities should they be determined necessary by SCE.

SCE will maintain responsibility for acquiring permits, performing pre-construction biological resource surveys, performing biological resource monitoring during construction, performing cultural and paleontological resource monitoring during construction, and consulting with regulatory agencies related to the installation of SCE's facilities.

EXHIBIT C

COST SUMMARY

WDT 435 [redacted] Re-Study

Cost Estimate Summary (Escalated to 2014 Dollars)

Scope: Interconnection of 20 MW of generation to Windhub Substation

No.	Element	Interconnection Facilities (Subject to ITCC)	IF One Time Cost (Not Subject to ITCC)	Distribution Upgrades (Subject to ITCC)	Distribution One Time Cost (Not Subject to ITCC)	ITCC*** (35%)	2013 Constant Dollars Escalated to OD Year (2014)
	Sub-Transmission						
1	Gen Tie	$ 334,820	$ -	$ -	$ -	$ 117,187	$ 463,000
2	Tap line	$ 658,804	$ -	$ -	$ -	$ 230,581	$ 911,000
3	Tap line, one time cost	$ -	$ 29,256	$ -	$ -	$ -	$ 30,000
4	WDT 435 - Windhub 66kV line (approximately 4.5 miles), on existing structures	$ 2,564,521	$ -	$ -	$ -	$ 897,582	$ 3,548,000
5	WDT 435 - Windhub 66kV line (approximately 4.5 miles)	$ -	$ 14,267	$ -	$ -	$ -	$ 15,000
	Subtotal						$ 4,965,000
	Substation						
1	66 kV Tap Substation - Interconnection	$ 3,663,434	$ -	$ -	$ -	$ 1,282,202	$ 5,069,000
2	Pair of relays for diversity at Tap Substation	$ 190,707	$ -	$ -	$ -	$ 66,747	$ 264,000
3	Equip a 66kV position at Windhub	$ 337,097	$ -	$ -	$ -	$ 117,984	$ 466,000
4	Equip a 66kV position at Windhub	$ -	$ -	$ 1,693,604	$ -	$ 592,761	$ 2,342,000
5	Pair of relays at Windhub for CB protection at Windhub Substation	$ -	$ -	$ 190,707	$ -	$ 66,747	$ 264,000
	Subtotal						$ 8,402,000
	Telecommunication						
1	Install cross connects for link between SCADA RTU and IC's circuit to SCE WDT 435	$ 11,594	$ -	$ -	$ -	$ 4,058	$ 16,000
2	Install fightwave, channel & associated equipment supporting diverse line protection & SCADA & fiber optic cables from Windhub to Goldtown Substations	$ 1,114,679	$ -	$ -	$ -	$ 390,138	$ 1,541,000
	Subtotal						$ 1,557,000
	Corporate Environmental Health and Safety						
1	Activities to support project	$ 2,433,048	$ -	$ -	$ -	$ 851,567	$ 3,284,000
	Subtotal						$ 3,284,000
	Licensing						
1	Activities to support project	$ 848,427	$ -	$ -	$ -	$ 296,949	$ 1,173,000
	Subtotal						$ 1,173,000
	Real Properties						
1	Activities to support project	$ 132,303	$ -	$ -	$ -	$ 46,306	$ 183,000
	Subtotal						$ 183,000
	Metering Services						
1	Install program & test a revenue meter	$ 32,677	$ -	$ -	$ -	$ 11,437	$ 45,000
	Subtotal						$ 45,000
	Power System Control						
1	RTU at generating facility	$ 96,545	$ -	$ -	$ -	$ 33,791	$ 134,000
2	Point additions at Windhub Substation	$ -	$ -	$ -	$ 34,674	$ -	$ 35,000
	Subtotal						$ 170,000
	Total	$ 12,418,656	$ 43,523	$ 1,884,311	$ 34,674	$ 5,806,036	$ 19,859,000

* Pursuant to FERC Order 2003A, ITCC is not collected on Reliability Upgrades and One Time Costs.

** ITCC cost may be satisfied with a letter of credit in accordance with the tax provisions of the LGIA.

*** The ITCC included in this cost estimate was computed using a 35% rate. Because of recent enactment of H.R. 4853, the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010, and upon formal acceptance by the CPUC of SCE's advice letter (filed on December 27, 2010), this rate may change for electric CIAC recorded or received after September 8, 2010 through December 31, 2011.

Cost estimate is only an estimate based on 2013 constant dollars and actual cost is subject to change depending on project construction date, and inflation

[redacted]