



Facilities Study Addendum 2



SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONALSM Company

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FACILITIES STUDY ADDENDUM 2

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I. Executive Summary

[REDACTED] an Interconnection Customer (IC), has submitted a completed Interconnection Request (IR) to the Southern California Edison Company (SCE) for their proposed [REDACTED] under the terms of SCE's Wholesale Distribution Access Tariff (WDAT).

The Project is a [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] The Project will be interconnected to SCE's electric system through the existing 66 kV line via a SCE owned tapped substation.

This report is an addendum to the Addendum issued on June 25, 2012. After its release, a prior queued ahead project withdrew from the interconnection queue now allowing the Project to tap the Little Rock - Wilsona 66 kV line. The IC also requested the use of only one telecommunication line instead of the normal diverse paths. As a result of such a request, the IC understands and agrees that the Project will be tripped off line/de-energized in the event of the loss of the single telecommunication line under any circumstances.

II. Facilities Study Addendum 2 Scope

This Facilities Study Addendum 2 shows the scope of work and the cost estimate for the following work required for the interconnection (all assumptions and scope stated in the May 20, 2011 report and June 25, 2012 Addendum not related to the following remain the same):

1. IC to build a 66 kV tap substation (WDT404 Substation) and gen-tie according to SCE's engineering, design, materials and construction standards.
2. Removal of diverse (underground) telecommunication circuit.
3. Addition of scope at Little Rock and Wilsona Substations.

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:

[REDACTED]

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CASE A Facilities: All facilities required to be paid by the Project

And

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

The facilities included in Case B are those additional facilities required to support line protection requirements and are needed if queued ahead projects do not move forward within the timeframes required to interconnect this project.

CASE A:

Substation:

WDT404 Substation

1. Review the complete engineering and design drawings, and bill of materials submitted by IC to verify compliance with SCE's engineering and design standards;
2. Inspect the site during construction to verify compliance with SCE's materials and construction standards;
3. Test WDT404 Substation prior to energization.

Little Rock Substation

Install a pair of relays and three (3) potential transformers for line protection.

Wilsona Substation

Install SMD-2B fuses and new disconnect switches.

Sub-Transmission:

Install three (3) light weight steel poles, three (3) automated pole switches, and approximately 400 circuit-feet of overhead conductor

Corporate Environmental, Health, and Safety:

Perform environmental studies, obtain environmental permits, and perform other environmental activities related to the tap line and two miles of overhead fiber optic cables. For deed to interconnect facilities and interconnection facilities located on the IC's property, review the IC's environmental documents related to the interconnection facilities to verify compliance with SCE's standards and/or provide support for potential licensing requirements by the California Public Utilities Commission (CPUC).

NOTE:

Environmental activities and the support for potential permits and/or CPUC licensing requirements for the interconnection facilities scope of work are contingent on final Engineering and Design and ultimate licensing requirements of the Project, and therefore are not available for inclusion into this addendum. These costs will be part of the true-up costs of the Project.

Real Properties:

Activities related to the two miles of overhead fiber optic cables and obtaining access easement for the RTU installed in the generation facilities.

[REDACTED]

[REDACTED]

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Telecommunication:

Install lightwave, channel, and associated equipment at Little Rock and WDT404 Substations and approximately two miles of overhead fiber optic cable from Little Rock to WDT404 Substations.

NOTE: Possible pole replacement costs due to the addition of the fiber optic cable are not included.

Power Systems Control:

Install a new smart real-time Remote Terminal Unit at WDT404 Substation to monitor customer's data, monitor necessary alarms, and operate the substation. Relay point additions and line name changes to the existing SAS2 database and displays at Little Rock Substation are required as well as line name changes to the existing database and displays at Wilsona Substation.

Metering Services Organization:

Install revenue metering units and associate metering materials at WDT404 Substation.

NOTE: There are no CASE B elements.

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

CASE A:	\$ 4,428,057
CASE B:	\$ 0
Maximum Cost Exposure:	\$ 4,428,057

See Appendix A for cost breakdown

III. Conclusions

- A. The estimated cost to interconnect the Project is approximately \$4,428,057 for Case A with the potential additional cost of \$0 for Case B for a maximum exposure of \$4,428,057.
- B. The costs indicated in the attached tables are shown in 2013 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 Study Addendum 2 and cost estimates as presented are valid for a period of 90 days.
- C. The estimated Project cost will be reconciled to actual costs upon closure of the associated work orders. The necessary billing adjustments will be made in accordance with the terms of the interconnection agreement.
- D. The time required to complete the Interconnection Facilities and Reliability Network Upgrades is estimated to be 24 months after receiving project authorization and funding.
A detailed Project Schedule will be provided during the Engineering and Design Phase of the Project.
- E. The results provided in this study are based on conceptual engineering and are not sufficient for permitting of facilities.

APPENDIX A

COST SUMMARY

Cost Estimate Summary (2013 Dollars)

Scope: Interconnect 18 MW of generation by tapping the existing Little Rock - Wilsona 66 kV line

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 09 Year (2015)
Sub-Transmission							
1	Tap into Little Rock - Wilsona 66kV line, main line rehab for future	\$ -	\$ -	\$ 306,647	\$ -	\$ -	\$ 306,647
2	Tap into Little Rock - Wilsona 66kV line, main line rehab for future	\$ -	\$ -	\$ -	\$ 26,587	\$ -	\$ 26,587
3	Tap into Little Rock - Wilsona 66kV line, main line rehab for future	\$ 507,366	\$ -	\$ -	\$ -	\$ -	\$ 507,366
4	Construct 400 tap line from main line, one time cost	\$ -	\$ 17,937	\$ -	\$ -	\$ -	\$ 17,937
	Subtotal	\$ 507,366	\$ 17,937	\$ -	\$ -	\$ -	\$ 525,303
1	Change for 10 to 15 ft bus substation	\$ 451,533	\$ -	\$ -	\$ -	\$ -	\$ 451,533
2	Install buses at Wilsona Substation	\$ -	\$ -	\$ 232,258	\$ -	\$ -	\$ 232,258
3	Install buses at Little Rock Substation	\$ -	\$ -	\$ 224,307	\$ -	\$ -	\$ 224,307
	Subtotal	\$ 451,533	\$ -	\$ 456,565	\$ -	\$ -	\$ 908,098
Telecommunication							
1	Install cross connections between WDT/WRK Generation Facility and SCE-WDT 510 Sub to support SCADA and line protection	\$ -	\$ 7,853	\$ -	\$ -	\$ -	\$ 7,853
2	Install fiber optic cables, Agniwave, design, & supplies	\$ -	\$ -	\$ 606,473	\$ -	\$ -	\$ 606,473
	Subtotal	\$ -	\$ 7,853	\$ 606,473	\$ -	\$ -	\$ 614,326
Corporate Environmental Health and Safety							
1	Activities to support the install buses at the Wilsona Substation.	\$ -	\$ -	\$ 24,750	\$ -	\$ -	\$ 24,750
2	Activities to support the tap line on customer property	\$ 294,803	\$ -	\$ -	\$ -	\$ -	\$ 294,803
3	Activities to support the telecom distribution upgrades	\$ -	\$ -	\$ 291,539	\$ -	\$ -	\$ 291,539
	Subtotal	\$ 294,803	\$ -	\$ 536,289	\$ -	\$ -	\$ 831,092
Spawning							
1	Activities to support project - N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rent Properties							
1	Activities to support the Interconnection Facilities	\$ 79,100	\$ -	\$ -	\$ -	\$ -	\$ 79,100
2	Activities to support the Distribution Upgrades	\$ -	\$ -	\$ 13,053	\$ -	\$ -	\$ 13,053
	Subtotal	\$ 79,100	\$ -	\$ 13,053	\$ -	\$ -	\$ 92,153
Metering Services							
1	Retail metering equipment, and retail meters at the Generation Facility	\$ 52,877	\$ -	\$ -	\$ -	\$ -	\$ 52,877
	Subtotal	\$ 52,877	\$ -	\$ -	\$ -	\$ -	\$ 52,877
Power System Control							
1	RPL at generation facility	\$ 58,548	\$ -	\$ -	\$ -	\$ -	\$ 58,548
2	Upgrade point solution at Little Rock	\$ -	\$ -	\$ -	\$ 34,574	\$ -	\$ 34,574
3	Name changes at Wilsona	\$ -	\$ -	\$ -	\$ 3,216	\$ -	\$ 3,216
	Subtotal	\$ 58,548	\$ -	\$ -	\$ 37,790	\$ -	\$ 96,338
	Total	\$ 1,237,207	\$ 17,937	\$ 695,574	\$ 37,790	\$ 37,790	\$ 1,936,705

* Payment to FERC Order 2008, ITCC is not collected on Reliability Upgrades and One Time Costs.
 ** ITCC cost may be assessed with a letter of credit in accordance with the contract of the LSP.
 *** The ITCC included in this cost estimate was computed using a 3.5% rate. Because of recent enactment of P.L.R. 4833, Net Year Nailed, Unemployment/Injury/Health Reauthorization and Job Creation Act of 2010, and upon formal ratification by the CIG of SCE's advice letter filed on December 27, 2010, this rate may change for electric CIGs recorded or received after September 8, 2010 through December 31, 2011. Cost estimates are only an estimate based on 2012 constant dollars and actual cost is subject to change depending on project characteristics, and impact.