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Facilities Study Report

Revised

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SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONALSM Company

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SOUTHERN CALIFORNIA EDISON COMPANY

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1. Executive Summary

██████████ submitted an application to Southern California Edison (“SCE”), pursuant to SCE’s Wholesale Distribution Access Tariff (WDAT) to interconnect a ██████████ to the ██████████ on SCE’s Vista ██████████ in Colton Ca. ██████████ requested in-service date of the proposed generation project is June 1, 2007.

██████████ consists of the addition of ██████████ that has a maximum plant output ██████████. The generator will be tapped into the ██████████. The net output from the project measured at the ██████████ at ██████████ is expected to ██████████. The tapped line will become the Vista-Colton Cement-Colton ██████████.

The non-binding SCE cost estimates¹ to interconnect the Project are:

Interconnection Facilities ²	<u>\$0</u>
Interconnection Facilities ITCC ³	<u>\$0</u>
Distribution Upgrades	<u>\$0.395 M</u>
Distribution Upgrades ITCC ⁴	<u>\$0.138 M</u>

The estimated costs have been provided in 2014 constant dollars. Section 6 of this report provides the estimated costs.

This Revised Facility Study Report focuses on the distribution impacts triggered by ██████████ beyond the Point of Interconnection (“POI”).

2. Distribution System Impact Study Results

A. Short Circuit Analysis

- Using the short circuit models from the ██████████ it was calculated that the short circuit contribution resulted in an increase of 0.1kA or more, thus, a breaker analysis was required due to this generation project. The circuit breaker analysis concluded that ██████████ replacements are required as part of this project.

B. Thermal Loading

- For both peak load and light load conditions, the addition of ██████████ did not result in any violation of SCE’s thermal loading criteria under base case and N-1 conditions for the SCE distribution system.

¹ These upgrades are not reimbursable.

³ The electrical facilities installed and maintained by SCE necessary to physically and electrically interconnect the Project to the SCE Distribution System from the Point of Change in Ownership to the Point of Interconnection.

⁴ Income Tax Component of Contribution. The ITCC included in this cost estimate was computed using a 35% rate.

3. Facilities Study Assumptions

The following assumptions are only specific to the Project.

A. The following assumptions and SCE Distribution System Design Criteria were included in the Facility Study:

- The design and construction of the electrical facilities will take approximately six to nine (6-9) months⁴. The Interconnection Customer is responsible to perform the underground civil work per SCE's design.
- SCE will approve and release the applicant installed underground infrastructure prior to SCE initiating the construction of the electrical facilities.
- The underground civil work includes but it is not limited to excavation (all necessary trenching, backfilling, and other digging as required), and installation of [REDACTED] for the required Interconnection Facilities.
- Where formal rights of way, easements, land leases, or permits are required by SCE for installation of facilities, on or over Applicant's property, or the property of others, the Applicant shall grant SCE the rights of way and easements for the electrical facilities.
- Current distribution standards are being updated to address generation interconnection systems. The proposed method of service in this report may change according on final design to comply with the updated distribution design standards.
- No transmission facilities are affected.
- All environmental studies for the portion of the Interconnection Facilities work inside the Project's property would be the Project's responsibility, where SCE will be providing oversight support.
- For all other scope of work outside the Project's property, SCE will conduct the environmental studies.
- SCE will construct the underground electrical facilities and overhead scope of work.

4. Facilities Study Scope

The facilities that are triggered by the addition of the Project and are required exclusively by the Project for interconnection and distribution service.

SCE'S INTERCONNECTION FACILITIES

1. **Distribution:**
 - None

DISTRIBUTION UPGRADES

1. **Distribution**
 - Remove [REDACTED]

⁴ The estimated time to complete the Substation Upgrades is not included. It will be negotiated during the Interconnection Agreement.

- Install [REDACTED]
- Install [REDACTED]
- Install [REDACTED]
- Install [REDACTED]

2. Corporate Environmental Services

Provide oversight for documents related to customer’s licensing, permits, and all required environmental activities, as necessary, for the installation of the Distribution Provider’s Distribution Upgrades. Customer is responsible for performing all licensing environmental studies and cultural resource monitoring for the SCE facilities under Distribution Upgrades, as needed. Customer is also responsible for any cost related to satisfying any habitat mitigation requirements.

5. Facility Study Cost Estimates

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

Distribution Upgrades:	<u>\$0.395M</u>
<u>ITCC:</u>	<u>\$0.138 M</u>
TOTAL:	<u>\$0.533 M</u>

6. Facility Study Summary

6.1 Cost Estimates

Non-binding order of magnitude cost estimates for the required interconnection facilities and system upgrades are as follows, these costs do not include the cost for the civil construction which is required to install the interconnection facilities.

SCE’s Interconnection Facilities

Interconnection Facilities

- None

SCE’s Distribution Upgrades

Distribution Upgrades \$0.158 M

- Remove [REDACTED]
- Install [REDACTED]
- Install [REDACTED]
- Install [REDACTED]

- Install [REDACTED]

Corporate Environmental Services

Distribution Upgrades \$0.237 M

- Provide oversight for documents related to customer’s licensing, permits, and all required environmental activities, as necessary, for the installation of the Distribution Provider’s Distribution Upgrades. Customer is responsible for performing all licensing environmental studies and cultural resource monitoring for the SCE facilities under Distribution Upgrades, as needed. Customer is also responsible for any cost related to satisfying any habitat mitigation requirements.
- SCE facilities under Distribution Upgrades.

35% ITCC	\$0.138M
Total non-binding order of magnitude cost estimate	\$0.533 M

6.2 Design Schedule Estimates

Once the GIA is executed, the design of the Interconnection Facilities will take approximately sixty (60) business days from the time the Interconnection Customer has provided the following to SCE:

- *Customer information sheet.*
- *Street improvement plans (if available)*
- *Unique address for point of interconnection*
- *Site plot plan on a 30:1 scale or digital file required*
 - *Easements/Lease Agreement*
 - *Grading plans – if project area is not graded*
 - *Sewer and storm plot plans – if facilities are existing at the project location*
 - *Landscape, sprinkler, pedestal locations – if facilities are existing at the project location.*

6.3 Construction Schedule Estimates

The construction of the Interconnection Facilities will take approximately six (6) months from the time the design is complete and from the time the underground civil construction has been completed by Interconnection customer and released by SCE inspectors. This assumes all transmission network, subtransmission, and distribution upgrades triggered by higher queued projects that required for the Project to interconnect has been constructed and are in place.

6.4 Conceptual Method of Service

The results provided in this study are based on conceptual engineering and a preliminary plan of service and are not sufficient for permitting of facilities. The Plan of Service is subject to change during the actual design and construction of the project

6.5 Relocations and Other Use of SCE Facilities

The Interconnection Customer is responsible for all costs associated with necessary relocation of any SCE facilities as a result of this project and acquiring all property rights necessary for the Interconnection Customer's Interconnection Facilities, including those required to cross SCE facilities and property. The relocation of SCE facilities or use of SCE property rights shall only be permitted upon written agreement between SCE and the Interconnection Customer. Any proposed relocation of SCE facilities or use of SCE property rights may require a separate study and/or evaluation to determine whether such use may be accommodated, and any associated cost would be non-refundable.

6.6 Construction Schedule

The estimated time to construct (ETC) is for a typical project; schedules duration may change due to number of projects approved and release dates. Stacked projects impact resources, system outage availability, and environmental windows of construction.