[redacted]

WDAT 1107

WDAT
System Impact and Facility Study

July 25, 2014

SOUTHERN CALIFORNIA
EDISON
An *EDISON INTERNATIONAL*℠ Company

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SOUTHERN CALIFORNIA EDISON COMPANY

EXECUTIVE SUMMARY

Southern California Edison Company ("SCE") performed a combined System Impact and Facilities Study as requested by the [redacted] for a 12kV interconnection and distribution service [redacted] pursuant to SCE's Wholesale Distribution Access Tariff ("WDAT"). The interconnection is to be located at [redacted] The request is for a WDAT load of [redacted] The initial request for service commencement is July 1, 2014.

The load WDAT would receive distribution service from an SCE switch via the [redacted] The power would be delivered by the CAISO grid from the 220kV bus at [redacted] The power would continue to flow through the 220/66kV transformer banks at [redacted] through the [redacted] and ultimately delivered to the [redacted] through the [redacted]

The purpose of this combined study is to determine the impact of the proposed load addition on the SCE distribution system, identify what modification and/or additions would be necessary to accommodate the request while maintaining system reliability, and determine the estimated costs to complete those modifications and/or additions.

The SCE distribution system and sub-transmission network will not be significantly impacted by the interconnection of this [redacted]

The estimated installed cost for the required Interconnection Facilities is approximately $0 including ITCC. Additionally, the applicant will be responsible for the installation and costs of all underground facilities (ducts, structures, etc.) on the property if required. The construction of the underground facilities must be constructed per SCE's design.

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INTRODUCTION

Southern California Edison Company ("SCE") performed a combined System Impact and Facilities Study as requested by the [redacted] for a 12kV interconnection and distribution service [redacted] pursuant to SCE's Wholesale Distribution Access Tariff ("WDAT"). The interconnection is to be located at [redacted] The request is for a WDAT load of [redacted] The initial request for service commencement is July 1, 2014.

The load WDAT would receive distribution service from an SCE switch via the [redacted] The power would be delivered by the CAISO grid from the 220kV bus at [redacted] The power would continue to flow through the 220/66kV transformer banks at [redacted] through the [redacted] transmission network (affecting flows at 4 lines), through the [redacted] and ultimately delivered to [redacted]

The purpose of this combined study is to determine the impact of the proposed load addition on the SCE distribution system, identify what modification and/or additions would be necessary to accommodate the request while maintaining system reliability, and determine the estimated costs to complete those modifications and/or additions.

The purpose of the Facility Study is to detail the equipment required to be installed, based on the results of the System Impact Study, and to provide preliminary and scheduling estimates for the installation of that equipment.

This report describes the conditions and assumptions of each study and presents the results of the assessment. The report presents conclusions for the impact of the [redacted] MW of load connected to the SCE distribution system at the [redacted]

SYSTEM IMPACT STUDY CONDITIONS & METHODOLOGY

Planning Criteria

The thermal rating of any conductor, connector, or apparatus should not exceed 100% of its normal rated capacity as a result of the added load.

The thermal rating of any conductor, connector, or apparatus should not exceed 100% of its emergency rating under N-1 conditions.

Operational flexibility and reliability of the distribution system shall be maintained.

Circuit voltage profiles should be maintained to comply within CPUC's Rule 2 requirements.

System Conditions
The power factor for the new load was assumed to be improved to within WDAT requirements of 0.95 lagging or leading, except as otherwise stated.

Expected loading on the distribution system as projected by SCE's 2014 - 2024 plan was used.

Distributed Generation resources connected to the distribution system are deemed to be offline, unless they have been deemed "reliable generation." The largest unit of reliable generation affecting a given loading scenario will be deemed offline.

Upgrades previously identified as required by earlier projects are assumed to be in service.

Load Conditions
Load analysis consists of modeling SCE's [redacted] 12kV distribution system to evaluate the impact of the added load on the 12kV circuits, 66/12kV substation banks, and the upstream sub-transmission system back to the CAISO 220kV bus at SCE's [redacted] Substation.

SYSTEM IMPACT STUDY RESULTS

Identification of System Constraints
With the addition of [redacted] of load during the study period, no overloads were identified on:

- SCE's 12kV distribution system
- [redacted]
- 66kV sub-transmission network

Protection Review
Since this project is an existing load with existing panel and Protection settings, Protection Review will not be required.

Distribution System Upgrades
Distribution Upgrades are not required for this project.

FACILITIES STUDY CONDITIONS & METHODOLOGY

Customer Equipment

The existing 12kV switchgear is assumed to have adequate Protection and complies with SCE's Electrical Service Requirements.

FACILITIES STUDY RESULTS

Interconnection Facilities

Interconnection Facilities	$0 K
Total non-binding order of magnitude cost estimate	$0 K

CONCLUSIONS

1. This study assumes that [redacted] has been cancelled. The cancellation of GFID2644 will include the decommissioning of all generators in the facility, removal of an existing [redacted]

2. Existing customer account [redacted] for [redacted] must be terminated and a new account must be opened for the [redacted]

3. Customer name must be changed from [redacted]

4. Signs of erosion were found on the customer structure near the existing Ground Bank. If remediation is required, the customer is responsible for mitigating this problem prior to the commencement of WDAT service for the [redacted]

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

Interconnection Facilities/Automation	$ 0.0 K
12kV Distribution Upgrades	$ 0.0 K
Total non-binding order of magnitude cost estimate	$ 0.0 K

6. This combined System Impact and Facilities Study is based on various technical data previously provided by the [redacted] for the [redacted] If any of that information changes significantly, as determined by SCE, the results of this study may no longer be appropriate and may necessitate a new study.

7. This combined System Impact and Facilities Study does not include the cost associated with environmental studies, which may be required for the licensing or permitting for the proposed [redacted]

8. This combined System Impact and Facilities Study also does not include the ongoing operating and maintenance charges associated with any required existing Interconnection Facilities required to accommodate WDAT service for the [redacted] Such charges will be included in the interconnection facilities agreement for this project.