

WDT453

*WDAT
Facility Study Report*

July 11, 2011



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SOUTHERN CALIFORNIA EDISON COMPANY

EXECUTIVE SUMMARY

[REDACTED] applied to Southern California Edison (“SCE”) for interconnection and wholesale distribution service for its proposed Solar Project pursuant to SCE’s Wholesale Distribution Access Tariff (“WDAT”) Small Generator Interconnection Procedures. SCE performed a System Impact Study as requested by [REDACTED] for a 12kV interconnection and distribution service from an existing 12 kV distribution line (“Caliber 12 kV”). The interconnection is to be located approximately 4.6 miles from [REDACTED] on the Caliber 12 kV circuit out of SCE’s [REDACTED] 66/12 kV Substation. The request is for a WDAT photovoltaic (“PV”) generation facility with a total capacity of 5 MW. The initial request is for service to commence by [REDACTED]

The new generation, consisting of photovoltaic panels, [REDACTED] inverters, and [REDACTED] transformers, will receive interconnection service from SCE’s existing 12 kV circuitry on the Caliber 12 kV out of [REDACTED] via an underground line extension to the applicant-owned 12kV switchgear. The generated power would be delivered to the California Independent System Operator (“CAISO”) grid at the 66 kV bus of SCE’s [REDACTED] Substation.

The purpose of this Facility Study is to determine:

- The estimated cost for the Distribution Upgrades and Interconnection Facilities which were identified in the System Impact Study¹.
- The estimated time required to complete the design and construction of the Distribution Upgrades and Interconnection Facilities which were identified in the System Impact Study.

Non-binding order of magnitude cost estimates for the required interconnection facilities and 12 kV system upgrades are as follows:

<u>Interconnection Facilities</u>	\$ 151 K
○ Remote Controlled Switch (RCS) PT	
○ 3-way Automated Pad Mounted Gas Switch	
○ Approximately 50 feet of 350 JCN cable	
○ Metering	
Telemetry Requirements	\$ 151 K
○ Remote Terminal Unit	
○ Telecommunication System for RTU	
<u>12 kV Distribution Upgrades</u>	\$ 0 K
○ None	
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Total non-binding order of magnitude cost estimate	\$ 302 K

¹ Copy of the System Impact Study is provided as attachment A.

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Attachment A: System Impact Study		

I. INTRODUCTION

[REDACTED] applied to Southern California Edison ("SCE") for interconnection and wholesale distribution service for its proposed Solar Project pursuant to SCE's Wholesale Distribution Access Tariff ("WDAT") Small Generator Interconnection Procedures. SCE performed a System Impact Study as requested by [REDACTED] for a 12kV interconnection and distribution service from an existing 12 kV distribution line ("Caliber 12 kV"). The interconnection is to be located approximately 4.6 miles from [REDACTED] Substation on the Caliber 12 kV circuit out of SCE's [REDACTED] 56/12 kV Substation. The request is for a WDAT photovoltaic ("PV") generation facility with a total capacity of 5 MW. The initial request is for service to commence by [REDACTED]

The new generation, consisting of photovoltaic panels, [REDACTED] inverters, and [REDACTED] transformers, will receive interconnection service from SCE's existing 12 kV circuitry on the Caliber 12 kV out of [REDACTED] Substation via an underground line extension to the applicant-owned 12kV switchgear. The generated

power would be delivered to the California Independent System Operator (“CAISO”) grid at the 66 kV bus of SCE’s [REDACTED] Substation.

The purpose of this Facility Study is to determine:

- The estimated cost for the Distribution Upgrades and Interconnection Facilities which were identified in the System Impact Study².
- The estimated time required to complete the design and construction of the Distribution Upgrades and Interconnection Facilities which were identified in the System Impact Study.

VI. SUMMARY

1. No Distribution Upgrades are required to interconnect this project.
2. Interconnection facilities include the installation of a new pad-mounted Automated 3-way Gas Switch with a Remote Controlled Switch (RCS), a 12 kV line extension of approximately 50 feet underground between 12 kV line and applicant’s switchgear, and 12 kV metering CTs.
3. Real time telemetry will be required. It will be required to install an RTU and Telecom systems as required to provide watts and vars flow from the generation facility to the SCE distribution system.
4. Non-binding order of magnitude cost estimates for the required interconnection facilities and system upgrades are as follows, these do not include cost any civil construction required by the interconnection.

Interconnection Facilities \$ 151 K

- Remote Controlled Switch (RCS) PT
- 3-way Automated Pad Mounted Gas Switch
- Approximately 50 feet of 350 JCN cable
- Metering

Telemetry Requirements \$ 151 K

- Remote Terminal Unit
- Telecommunication System for RTU

12 kV Distribution Upgrades \$ 0 K

- None

Total non-binding order of magnitude cost estimate \$ 302 K

5. The design of the Interconnection Facilities will take be approximately 60 business days from the execution of the Small Generator Interconnection Agreement (SGIA) and from the time the applicant has provided the following to SCE:
 - *Approved panel drawings which shall comply with SCE ESR. These requirements can be downloaded at :*
<http://www.sce.com/AboutSCE/Regulatory/distributionmanuals/esr.htm>
 - *Customer information sheet.*
 - *Street improvement plans (if available)*
 - *Unique address for point of interconnection*
 - *Public Right away (Street) base maps as required by the interconnection.*
 - *Site plot plan on a 30:1 Scale or Digital file*
 - *Easements/Lease agreement*
 - *Grading plans*
 - *Sewer and storm plot plans*
 - *Landscape, Sprinkler, Pedestal Locations*
 - *Underground civil construction is released by SCE inspectors.*
6. The construction of the Interconnection Facilities will take be approximately 60 business days from the completion of the design and from released of SCE underground inspector of the applicant built ducts and structures needed for the interconnection electrical facilities.
7. Applicant is responsible for the construction of underground facilities needed to for the interconnection facilities. The construction of the underground facilities must be based on SCE design drawings.

Attachment A – System Impact Study