
Appendix A – WDT1203




Queue Cluster 7 Phase II Report

November 24, 2015

This study has been completed in coordination with the California Independent System Operator Corporation (CAISO) per CAISO Tariff Appendix DD Generator Interconnection and Deliverability Allocation Procedures (GIDAP)

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A. Introduction

██████████ the Interconnection Customer (IC), has submitted a completed Interconnection Request (IR) to Southern California Edison Company (SCE) for their proposed ██████████ (Project). The Project plans to have a total net output of ██████████ at the generating facility. The project requested a Point of Interconnection (POI) at Southern California Edison Company's (SCE) ██████████ located in ██████████. The IC elected Option (A) with Full Capacity Deliverability Status (FCDS) for their Project. The IC desires an In-Service Date (ISD) of December 1, 2017 and a Commercial Operation Date (COD) of June 1, 2018. Such dates are specified in the Project's Attachment B submittal. Actual ISD and COD will depend on detailed design, engineering, and construction requirements to interconnect the Project after the Generator Interconnection Agreement (GIA) has been executed and filed at Federal Energy Regulatory Commission (FERC) for acceptance.

In accordance with FERC approved CAISO Tariff Appendix DD Generator Interconnection and Deliverability Allocation Procedures (GIDAP), the Project was grouped with Queue Cluster 7 (QC7) Phase II projects to determine the impacts of the group as well as impacts of the Project on the CAISO Controlled Grid.

Please note that the discussion related to the combined impacts at the Transmission level of the group resides in the Area Report, which is included in the QC7 PII report package. This report focuses only on the impacts or impact contributions of the Project at the local Distribution System, and it is not intended to supersede any contractual terms or conditions specified in a GIA.

The report provides the following:

1. Distribution System impacts caused by the Project;
2. System reinforcements necessary to mitigate the adverse impacts caused by the Project under various system conditions;
3. A list of required facilities and a good faith estimate of the Project's cost responsibility and time to construct¹ these facilities. Such information is provided in Attachment 1 and Attachment 2 as separate documents in the Appendix A Project report package.

All the equipment and facilities comprising the Project are located in ██████████ as disclosed by the IC in its Interconnection Request (IR), as may have been amended during the Interconnection Study process, which consists of (i) ██████████
██████████ (ii) the associated infrastructure, (iii) meters and metering equipment, and (iv) appurtenant equipment.

¹ It should be noted that construction is only part of the duration of months specified in the study, which includes detailed engineering, licensing, and other activities required to bring such facilities into service. These durations are from the execution of the GIA, receipt of: all required information, funding, and written authorization to proceed from the IC as will be specified in the GIA to commence the work

The Project shall consist of the Generating Facility and the IC's Interconnection Facilities as illustrated below in Figure A.1, as well as, Figure A.2 is a map that illustrates the location of the Project. Similarly, the Project information is summarized in Table A.1 below. The Project shall not exceed the total net output of [REDACTED] at the Point of Change of Ownership (POCO).

Figure A.1: Project One-Line Diagram

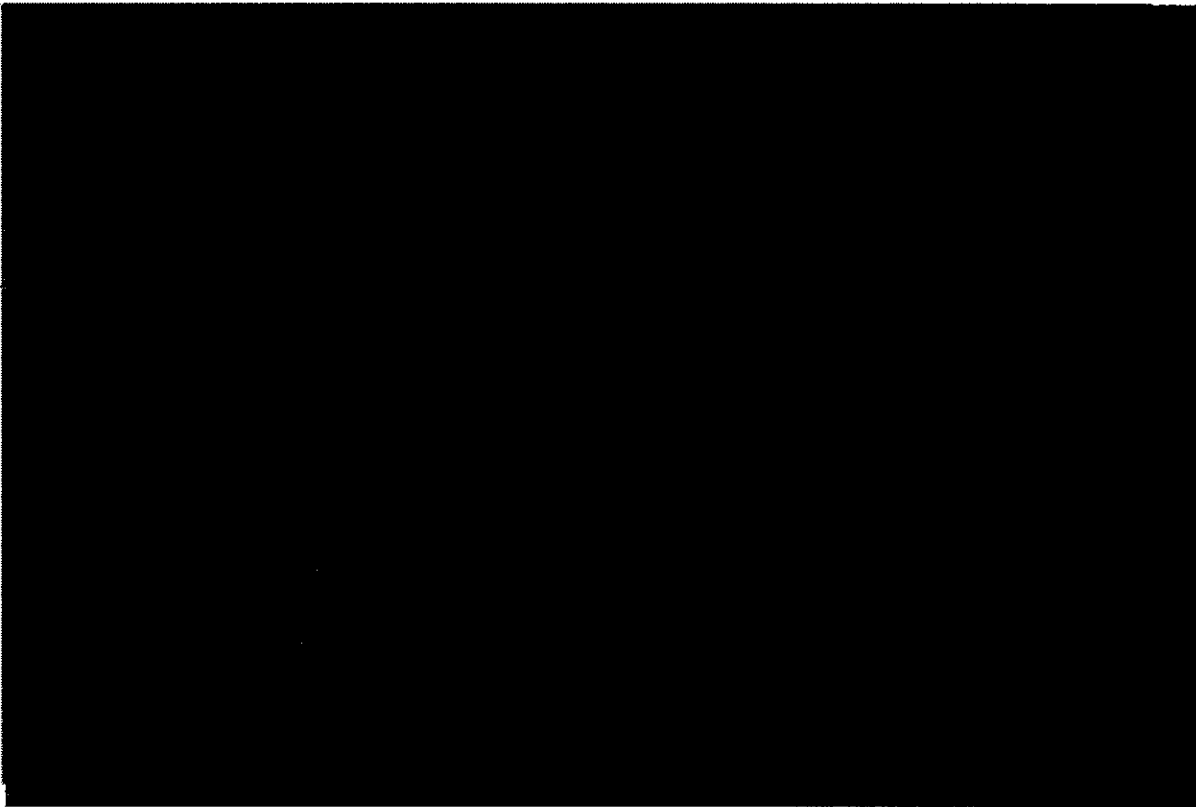


Figure A.2: Project Location Map

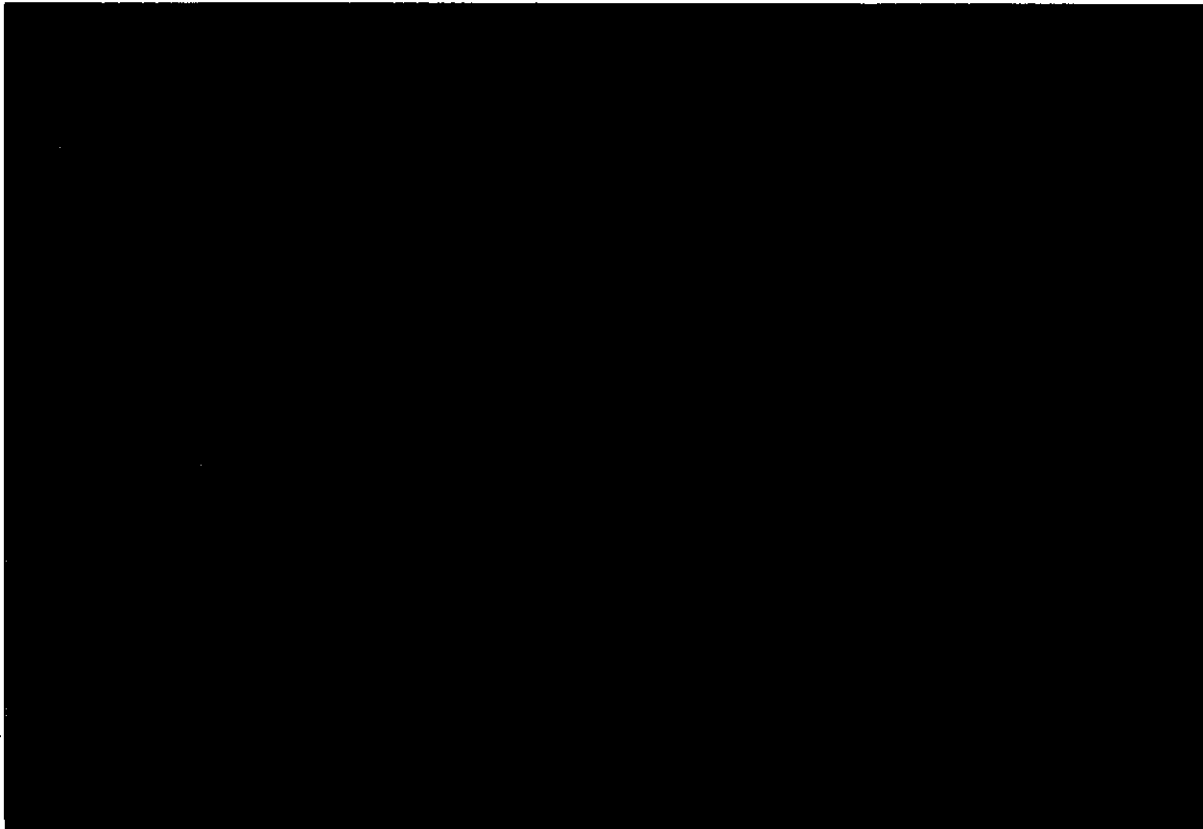


Table A.1 Project General Information

Project Location	[REDACTED]
Distribution Provider's Planning Area	SCE North of Lugo Bulk system
Number and Types of Generators	[REDACTED]
Interconnection Voltage	[REDACTED]
Maximum Generator Output	[REDACTED]
Generator Auxiliary Load	[REDACTED]
Maximum Net Output at Generation Facility	[REDACTED]
Power Factor Range	Lead [REDACTED] at POI per interconnection application
Step-up Transformer(s)	[REDACTED]
POI	Distribution Provider's [REDACTED]
IC Requested COD	June 1, 2018

B. Study Assumptions

For detailed assumptions regarding the group cluster analysis at the transmission level, please refer to the applicable QC7 Phase II Area Report. Below are the assumptions specific to the Project.

1. The following is the Plan of Service (POS) assumed for the Project in the Phase II Study:

The project was modeled as with a net output of [REDACTED] at the Generating Facility with its POI to the SCE Distribution System at the [REDACTED] [REDACTED] at the Point of Change of Ownership (POCO).

2. The following Facilities will be installed by SCE and **are included** in this Phase II Study:

- The required revenue metering cabinet and revenue load meters.

NOTE: SCE installation does not include metering, voltage, and current transformers. The SCE Meters will be connected to the generator – owned voltage and current transformers to be installed for their CAISO metering.

- Two (2) 45 foot poles
- One (1) 33 kV, overhead remote automated recloser (RAR) with load break bypass switch
- Approximately 400 ft. of 336 Aluminum Conductor Steel Reinforced (ACSR) Cable
- 33 kV Primary Metering, Current Transformers (CTs), Potential Transformers (PTs), and Associated Wiring
- Telemetry – Remote Terminal Unit (RTU)
- Substation Automation System Point addition
- Replacement of existing Directional Load Tap Changer (LTC) controllers with Bidirectional

3. The following Facilities will be installed by the IC and **are not included** in this Phase II Study:

- Ducts as required
- Structures as required
- Isolating circuit breaker
- Protection System requirements to comply with the Distribution Provider's Interconnection Handbook
- Transformation as required

- One (1) gang operated, overhead switch
- Metering Equipment compliant with SCE Electrical Service Requirements
- CAISO metering as required

NOTE: SCE will install metering voltage, and CTs to be used for the SCE owned revenue meters. The voltage and CTs can be used for the customer CAISO metering.

4. The following SCE Distribution System Planning Criteria and Conditions were included in the Phase II Study:
- The thermal rating of any conductor, connector, or apparatus shall not exceed 100% of its normal rated capacity with all facilities in service (base case).
 - The thermal rating of any conductor, connector, or apparatus shall not exceed 100% of its emergency rating under loss of one element (N-1) conditions.
 - Operational flexibility and reliability of the Distribution System shall be maintained at all times.
 - Circuit voltage profiles shall be maintained to comply within CPUC's Rule 2 requirements.
 - The power factor for the new generation facility was assumed to be within WDAT Tariff requirements of [REDACTED]
 - Expected loading on the Distribution System as projected by the SCE 2014 - 2023 Distribution system plan was used.
 - Distributed Generation resources connected to the Distribution System are analyzed offline and online during peak load conditions as well as during minimum daytime load conditions as to determine worst case scenario.
 - The short circuit contribution from the inverter systems was determined using inverter manufacturer documents.
 - The Phase II Study assumes the upgrades triggered by previously queued projects, including Rule 21 projects under CPUC jurisdiction as In-Service, are included in the base case for the Phase II projects. If any previously queued projects were to withdraw, then the Phase II projects may be subjected to the cost identified for those previously queued projects.
 - Current Distribution standards are being updated to address generation interconnection systems. The proposed method of service in this report may change according on detailed design to comply with the updated Distribution design standards.
 - This study assumes that the IC's Generating Facility will include all equipment, software, and appropriate controls necessary to maintain the generator output profile per SCE

requirements. The IC will be responsible for maintaining designated voltage levels under all conditions, including but not limited to the conditions identified above. Upon execution of the GIA, SCE will provide the IC with the required ramp rate control parameters. The ramp rate controls will be a function of the generation penetration on the Distribution System, as well as SCE's Distribution System configuration (additional parameters maybe considered, as need). Changes to the ramp rate control scheme may be required as determined by increased generation, changes in the Distribution System topology, or other changes in the Distribution System.

C. Power Flow Reliability Assessment Results

- I. Steady State Power Flow Analysis Results – 220 kV and above
The group study indicated that the Project does not contribute to any overloads/non-convergence problems on the Transmission System of the area. Consequently, the Project did not get allocated costs for any Network Upgrades.
- II. Steady State Power Flow Analysis Results – 66 kV and 115 kV
The group study indicated that the Project does not contribute to any overloads/non-convergence problems on the Subtransmission System of the area. Consequently, the Project did not get allocated costs for any upgrades at the subtransmission level.
- III. Steady State Power Flow Analysis Results – 33 kV and below
 1. Thermal Overloads
The details of the analysis and overload levels are provided in the area study.
 - Category "A" (All facilities in service, N-0)
 - Substation
 - None
 - Circuit
 - The addition of the Project will [REDACTED]
 - Category "B" (loss of a single element, N-1)
 - Substation
 - None
 - Circuit
 - None
 2. Power Flow Non-Convergence

There were no non-convergence issues identified with the inclusion of the Project due to the limited system capacity.

3. Voltage Performance

The Project is required to provide power factor regulation capability ([REDACTED] at POI) to alleviate power flow non-convergence and maintain the Transmission transfer capability. Additionally, the generation system must be designed to accommodate a VAR schedule provided by SCE. SCE will determine if the VAR schedule is necessary based on future re-arrangements of SCE's system.

4. Protection

There were no additional Protection requirements.

5. Required Mitigations

The Project is required to provide [REDACTED] regulation capability at the POI, in addition to the following Distribution Upgrades to mitigate the power flow impacts of the Project described above.

- a. Reconductor approximately 6,000 feet of 1/0 ACSR to 653 ACSR on the [REDACTED]

Refer to Attachment 1 for scope description of these Distribution Upgrade(s).

D. Short Circuit Duty Results

Short circuit studies were performed to determine the fault duty impact of adding the QC7 Phase II projects to the Transmission System and to ensure system coordination. The fault duties were calculated with and without the projects to identify any equipment overstress conditions. Once overstressed circuit breakers are identified, the fault current contribution from each individual project in QC7 Phase II is determined. Each project in the cluster will be responsible for its share of the upgrade cost based on the rules set forth in CAISO Tariff Appendix DD.

1. Short Circuit Duty Study Input Data

The customer provided technical data for the identified inverter (specified in Section 2). If the technical data obtained from the inverter manufacturer by SCE illustrates differences in the Short Circuit Duty (SCD) parameters, then SCE utilized the manufacturer data of the inverter model specified by the IC in the application in the SCD study. SCE did not utilize the parameters provided by the IC.

"Inverter Based Generation" Data for Each generation unit:

Maximum Fault contribution: [REDACTED]

Generation Step up and Pad-Mount Transformers technical details are provided in Table A-1.

2. Short Circuit Duty Study Results

All bus locations where the QC7 Phase II projects increase the short-circuit duty by [REDACTED] or more and where duty was found to be in excess of 60% of the minimum breaker nameplate rating are listed in the QC7 Phase II Area Report (Appendix H). These values have been used to determine if any equipment is overstressed as a result of the inclusion of QC7 Phase II interconnections and corresponding network upgrades, if any.

The responsibility to finance short circuit related Reliability Network Upgrades identified through a Group Study shall be assigned to all IRs in that Group Study pro rata on the basis of SCD contribution of each Generating Facility.

Please refer to the QC7 Phase II Area Report for the QC7 Phase II breaker evaluation identified overstressed circuit breakers at the SCE buses, and Attachment 2 for the pro-rata allocation with corresponding estimated costs (if any) for the Project, based on SCD contribution at each location.

3. SCE Substations with Ground Grid Duty Concerns

The short circuit studies flagged SCE-owned substations beyond the Project's POI with ground grid duty concerns that necessitate a ground grid study. However, the Project does not contribute to the duty concerns at hand, and did not get allocated costs for ground grid studies at the flagged SCE-owned substations.

4. Preliminary Protection Requirements

Protection requirements are designed and intended to protect the Distribution Provider's Distribution System only. The preliminary protection requirements were based upon the interconnection plan as shown in the one-line diagram depicted in line item #7 in Attachment 1.

The IC is responsible for the protection of its own system and equipment and must meet the requirements in the Distribution Provider's Interconnection Handbook provided in Attachment 4.

E. Transient Stability Evaluation

1. Area Study Transient Stability Results – 220 kV and above

Refer to enclosed Area Report in the QC7 PII report package, for the QC7 PII transient stability evaluation criteria, and assessment results, respectively, at the 220 kV and above voltage level.

2. Area Transient Stability Results – 66 kV or 115 kV

Refer to enclosed Subtransmission Assessment Report in the QC7 PII report package for the QC7 PII transient stability evaluation, criteria, and assessment results at the applicable subtransmission voltage level (66 kV or 115 kV).

3. Area Transient Stability Results – 33 kV or below

At the 33 kV and below voltage level this study is not performed.

F. Deliverability Assessment Results

1. On Peak Deliverability Assessment
2. There are no deliverability constraints identified for the QC7 Phase II projects in the North of Lugo Area, Off- Peak Deliverability Assessment

For off-peak condition studies, see Section D.1.1 Table D.2 and Table D.4 in the North of Lugo Area Report.

3. Required Mitigations

G. None. In-Service Date and Commercial Operation Date Assessment

The latest information provided by the IC, confirms a requested ISD of December 1, 2017 and a COD of June 1, 2018. To determine if these dates are feasible, an In-Service Date and Commercial Operation Date Assessment was performed, which considered both the QC7 Phase II process timelines as well as the following facilities needed to provide for reliable Energy-Only interconnection of the Project. Timing of the upgrades required to provide for the requested FCDS are discussed in the section below.

The In-Service Date and Commercial Operation Date Assessment identified that the following facilities are required in order to provide for reliable interconnection for the Project:

1. QC7 Interconnection Process Timelines

To enable physical interconnection, an executed GIA is required. As part of the QC7 interconnection process, a GIA is not scheduled to be tendered until after completion of the CAISO's Reassessment and Transmission Planning Deliverability (TPD) Allocation Study Process which does not commence until late January 2016. The TPD Allocation is scheduled to be completed by April 2016. If the CAISO and SCE can make a determination that the TPD Allocation Study Process outcomes do not change the scope requirements, a letter will be provided at the end of April 2016² informing the IC that there are no changes to Network Upgrade requirements and initiates the GIA negotiation process. Otherwise, further re-assessment will be performed for the Project. Any updates to scope, cost, and schedule are developed and updated reports will be issued by the end of July 2016. The GIA negotiations commences after either the issuance of the letter of no change to Network Upgrade requirements at the end of April 2016 or upon issuance of the updated Reassessment reports at the end of July 2016. Provided the Project does not elect to Park for one (1) year, the letter issued by the CAISO and/or the updated Interconnection Study reports will be used as the basis to proceed with the GIA negotiations. Assuming a three (3) month timeframe for GIA negotiations after the draft GIA has been issued to the IC, an executable GIA is not expected until either early August 2016 or early November 2016 depending on TPD Allocation Study Process results, which required a decision from the IC to Park or proceed or the completion of the CAISO's Reassessment Study.

² The TPD Allocation Study Process is estimated to complete in April 2016. The actual date may vary.

2. System Upgrade Timelines for Reliable Interconnection

The Operational Studies identified that the following facilities are required in order to provide for reliable interconnection:

a. Distribution Provider's Interconnection Facilities

Refer to Section 1.b of Attachment 1 for details.

b. Reliability Network Upgrades

i. Short-Circuit Duty (SCD) Mitigation

SCD operation mitigation was identified taking into account new generation projects, which have executed GIAs, approved transmission system upgrades fully permitted and under construction, and new generation projects including QC7 Phase II Projects, which do not yet have an executed GIA. The study results for these operational studies are provided in Section II of the Generation Sequencing Implementation (GSI) Short Circuit Duty evaluation (Appendix G). Based on the study results, upgrades/mitigation are not required to be in place in order to enable [REDACTED] interconnection of this Project.

In addition to the above mitigation requirements, which already have established ISDs, the following additional SCD mitigation, which have not been initiated since timing need is dependent on development of queued generation projects that have not yet executed a GIA, may be needed in order to enable [REDACTED] interconnection:

- [REDACTED]

It should be noted that the timing for the installation and completion of the additional SCD mitigation identified is contingent on future development of generation projects requesting interconnection. The identification of need was based on the assumption that all queued generation projects actually materialize and are interconnected (as [REDACTED]). Timing to implement this incremental SCD mitigation is currently estimated at 27-months from the date the need is identified. This additional SCD mitigation will be continuously evaluated as part of ongoing GIA negotiations with queued generation projects to properly define the actual trigger of SCD mitigation based on the actual GIA negotiations with corresponding requested ISDs and commence project development.

c. Voltage Support Mitigation

No voltage support upgrades were identified to be required to enable this project to interconnect

- Distribution Upgrades includes line reconductor of approximately 6,000 feet of [REDACTED]

- Installation of bidirectional Load Tap Changing controllers to detect reverse power flow going through the B-banks at [REDACTED]

3. Conclusion

The requested ICs ISD of December 1, 2017 cannot be met due to the following reasons:

- The QC7 Interconnection Process Timelines will not yield an executable GIA until either early August 2016 or early November 2016 depending on TPD Allocation Study Process results. Timelines associated with constructing the Distribution Provider's Interconnection Facilities needed for physical interconnection are estimated at 27- months from the date the GIA is executed, payments are made, and notice to proceed with interconnection is provided. Following the standard process, this would result in a best case ISD of December 2018 or March 2019 depending on TPD Allocation Study Process results. Such dates are beyond the requested ISD and COD timeline for the Project. It should be noted that the ability to meet a best case ISD is tied directly to the IC's timely execution of the GIA, submittal of payments, and notice to proceed.
- Potential need to replace [REDACTED] which requires an estimated 27-months to complete from the day a project is initiated to replace the breakers.

H. Timing of Full Capacity Deliverability Status, Interim Deliverability, Area Constraints, and Operational Information

The IC elected Option (A) with FCDS for their Project. Timing of obtaining the requested FCDS is dependent on the completion of Delivery Network Upgrades. Until such time that the Delivery Network Upgrades are completed and placed into service, the Project may be granted Interim Deliverability Status based on annual system availability. The sections below provide a discussion of the timing of FCDS, Interim Deliverability, Area Constraints, and Operational Information.

1. System Upgrades Required for FCDS

In order to provide FCDS, the following facilities are required in addition to the Reliability Network Upgrades in Section 2(b):

- a. Triggered Delivery Network Upgrades - None
- b. Delivery Network Upgrades Triggered by Earlier Queued Projects - None
- c. Approved Transmission Upgrades
None
- d. Transmission Upgrades outside the CAISO Controlled Grid - None

2. Interim Operational Deliverability Assessment for Information Only

The operational deliverability assessment was performed for study year 2017 and 2019 by modeling the transmission and generation in service in the corresponding study year. SPS's were assumed to be installed before they are needed. For details of the transmission and generation assumption, refer to Section F of the QC7 Phase II Area Study report. There are no deliverability constraints identified and the Project may have FCDS when it starts commercial operation under the year by year transmission and generation assumptions. However, if some or all the transmission upgrades are delayed or more generation is actually in commercial operation than assumed, the interim deliverability of the Project will be impacted.

3. SCE Northern Hemisphere Import Nomogram

As part of the QC7 Phase II studies there were no Delivery Network Upgrades allocated to the Project for its requested FCDS. It is important to note that while no Delivery Network Upgrades were allocated to the Project, this outcome does not mean that the Project will be able to generate at its maximum net Generating Facility output. Congestion management could happen whenever the amount of generating resources exceeds the available Transmission capability. The generating resources' output may be curtailed, regardless of their deliverability status, as the result of congestion management under the CAISO market operation.

As stated in Attachment 7, studies indicate that as high amounts of resources in the [REDACTED] develop and are dispatched, the amount of available Transmission capacity for the Northern Area resources is diminished. Such conclusions point to a potential need for congestion management, and generation resource curtailments. For additional information on potential congestion under expected amounts of renewable generation development in 2021, please see Chapter 5 of the ISO 2013-2014 Transmission Plan report.

http://www.caiso.com/Documents/Board-Approved2013-2014TransmissionPlan_July162014.pdf.

I. Interconnection Facilities, Network Upgrades, and Distribution Upgrades

Please see **Attachment 1** for the Distribution Provider's Interconnection Facilities (DPIF's), Reliability Network Upgrades (RNUs), Delivery Network Upgrades (DNU's), and Distribution Upgrades (DUs) allocated to the Project. Please note that SCE will not "reserve" the identified DPIFs for the proposed POI. The identified scope/facilities will be allocated to the project upon the successful execution of the GIA and SCE has completed the detailed design and engineering of the facilities according to tariff timelines.

J. Cost and Construction Duration Estimates

To determine the cost responsibility of each generation project in QC7 Phase II, the CAISO developed cost allocation factors (Attachment 3) for RNUs, Local Delivery Network Upgrades (LDNUs), and Area Delivery Network Upgrades (ADNUs). Attachment 2 provides the 'constant' 2015 dollars and their escalation to the estimated COD year for DPIFs, RNUs, DNU's, and DUs, which the Project was allocated cost.

For the QC7 Phase II Study, the estimated COD is derived by assuming the duration of the work element will begin in December 2016, which accounts for the CAISO tariff scheduled completion date of the QC7 Phase II study plus: the TP Deliverability (TPD)³ Allocation Study Process, CAISO's Annual Reassessment effort, and the GIA signing period and submittal of required funds by the IC.

The IC should note that any LDNUs and ADNUs allocated to the Project may be assessed 35% Income Tax Component of Contribution (ITCC) pending the results of the TPD Allocation Study Process several months after the Phase II Study Reports are released, [REDACTED]

[REDACTED] For your information, Attachment 2 contains a potential ITCC estimate⁴ based on the Phase II cost in this study. It does not represent the "maximum ITCC exposure" of the Project. Attachment 3 provides an estimated non-reimbursable RNU cost that would be subject to ITCC, taking into account the Network Upgrades maximum cost responsibility. The maximum ITCC warranted by the Project will be addressed, calculated, and included during the GIA development phase once the IC submits the TP Deliverability Allocation Study Process options form confirming the acceptance, waiver (parking), or denial of awarded deliverability assigned to the Project.

K. SCE Technical Requirements

The IC is responsible for the protection of its own system and equipment and must meet the requirements in the Distribution Provider's Interconnection Handbook provided in Attachment 4.

L. Environmental Evaluation, Permitting, and Licensing

Please see Appendix K of the QC7 Phase II Area Report.

M. Affected Systems Coordination

Please see Section H of the QC7 Phase II Area Report.

N. Items not covered in this study

1. Conceptual Plan of Service

The results provided in this study are based on conceptual engineering and a preliminary POS and are not sufficient for permitting of facilities. The POS is subject to change as part of detailed engineering and design.

2. IC's Technical Data

The study accuracy and results for the QC7 Phase II Study are contingent upon the accuracy of the technical data provided by the IC. Any changes from the data provided could void the study results.

³ Transmission Plan Deliverability: Deliverability supported by the CAISO's Transmission Plan

⁴ The maximum ITCC exposure applies ITCC (35%) to assigned IF and DU facilities. Network upgrades that are not subject to transmission credits incremental to a repayment \$/MW cap or an award of 0 MW TPD Allocation, and that SCE will own the facilities in question. The maximum ITCC exposure is calculated by applying the following formula: [REDACTED]

3. Study Impacts on Neighboring Utilities

Results or consequences of this QC7 Phase II Study may require additional studies, facility additions, and/or operating procedures to address impacts to neighboring utilities and/or regional forums. For example, impacts may include but are not limited to WECC Path Ratings, short circuit duties outside of the CAISO Controlled Grid, and sub-synchronous resonance (SSR). Refer to Affected Systems Coordination Section of the QC7 Phase II Area Report for additional information.

4. Use of Distribution Provider Facilities

The IC is responsible for acquiring all property rights necessary for the IC's Interconnection Facilities, including those required to cross Distribution Provider facilities and property. This Interconnection Study does not include the method or estimated cost to the IC of Distribution Provider mitigation measures that may be required to accommodate any proposed crossing of Distribution Provider facilities. The crossing of Distribution Provider property rights shall only be permitted upon written agreement between Distribution Provider and the IC at Distribution Provider's sole determination. Any proposed crossing of Distribution Provider property rights will require a separate study and/or evaluation, at the IC's expense, to determine whether such use may be accommodated.

5. Distribution Provider's Interconnection Handbook

The IC shall be required to adhere to all applicable requirements in the Distribution Provider's Interconnection Handbook. These include, but are not limited to, all applicable protection, voltage regulation, VAR correction, harmonics, switching and tagging, and metering requirements.

6. Western Electricity Coordinating Council (WECC) Policies

The IC shall be required to adhere to all applicable WECC policies including, but not limited to, the WECC Generating Unit Model Validation Policy.

7. System Protection Coordination

Adequate Protection coordination will be required between Distribution Provider-owned protection and IC-owned protection. If adequate protection coordination cannot be achieved, then modifications to the IC-owned facilities (i.e., Generation-tie or Substation modifications) may be required to allow for ample protection coordination.

8. Standby Power and Temporary Construction Power

The QC7 Phase II Study does not address any requirements for standby power or temporary construction power that the Project may require prior to the In-Service Date of the Interconnection Facilities. Should the Project require standby power or temporary construction power from Distribution Provider prior to the ISD of the DPIFs, the IC is responsible to make appropriate arrangements with Distribution Provider to receive and pay for such revenue service.

9. Licensing Cost and Estimated Time to Construct Estimate (Duration)

The estimated licensing cost and durations applied to this Project are based on the Project scope details presented in this study. These estimates are subject to change as Project environmental and real estate elements are further defined. Upon execution of the GIA, additional evaluation including but not limited to preliminary engineering, environmental surveys, and property right checks may enable licensing cost and/or duration updates to be provided.

10. Network/Non-Network Classification of Telecommunication Facilities

The cost for telecommunication facilities that were identified as part of the IC's Interconnection Facilities was based on an assumption that these facilities would be sited, licensed, and constructed by the IC. The IC will own, operate, maintain, and construct diverse telecommunication paths associated with the IC's generation tie line, excluding terminal equipment at both ends. In addition, the telecommunication requirements for SPS were assumed based on tripping of the generator breaker as opposed to tripping the circuit breakers at the Distribution Provider substation. Due to uncertainties related to telecommunication upgrades for the numerous projects in queue ahead of QC7 Phase II, telecommunication upgrades for higher queued projects were not considered in this study. Depending on the outcome of interconnection studies for higher queued projects, the telecommunication upgrades identified for QC7 Phase II may be reduced. Any changes in these assumptions may affect the cost and schedule for the identified telecommunication facilities.

11. Ground Grid Analysis

A detailed ground grid analysis will be required as part of the detailed engineering for the Project at the SCE substations whose ground grids were flagged with duty concerns.

12. Applicability

This document has been prepared to identify the impact(s) contributions of the Project on the SCE electrical system; as well as establish the technical requirements to interconnect the Project to the POI that was evaluated in the QC7 Phase II Study for the Project. Nothing in this report is intended to supersede or establish terms/conditions specified in GIAs agreed to by SCE, CAISO, and the IC.

13. Process for synchronization/trial operations and commercial operations of the Project

The IC is reminded that the CAISO has implemented a New Resource Implementation (NRI) process that ensures that a generation resource meets all requirements before synchronization/trial operations and commercial operations. The NRI uses a bucket system for deliverables from the IC that are required to be approved by the CAISO. The first step of this process is to submit an "ISO Initial Contact Information Request form" at least seven (7) months in advance of the planned initial synchronization. Subsequently an NRI project number will be assigned to the project for all future communications with the CAISO. The Distribution Providers have no involvement in this NRI process except to inform the IC of this process requirement. Further information on the NRI process can be obtained from the CAISO Website using the following links:

New Resource Implementation webpage:

<http://www.caiso.com/participate/Pages/NewResourceImplementation/Default.aspx>

NRI Checklist:

<http://www.caiso.com/Documents/NewResourceImplementationChecklist.xls>

NRI Guide:

<http://www.caiso.com/Documents/NewResourceImplementationGuide.doc>

14. Potential Changes in Cost Responsibility

The IC is hereby placed on notice that interconnection of its proposed Generating Facility may be dependent upon certain Network Upgrades which are currently the cost responsibility of projects ahead of the proposed Generating Facility in the interconnection application queue. Section 14.2.2 of the GIDAP provides that should Network Upgrades required for queued-ahead projects be included in an executed GIA (or unexecuted GIA filed at FERC) at the time of withdrawal of the earlier queued generating facilities, and the upgrades are determined to still be needed by later queued generating facilities, the financial responsibility for such upgrades falls to the Distribution Provider. However, if the Network Upgrades required by earlier queued generating facilities are not subject to an executed GIA (or unexecuted GIA filed at FERC) the financial responsibility for such upgrades may fall to the IC. Section 14.2.2 also discusses how Network Upgrades required by interconnection customers selecting Option (B) might be required to be reapportioned among interconnection customers selecting Option (B) in the case of withdrawals of earlier queued generating facilities. Changes in costs allocated to the IC could also arise as the result of the CAISO's Reassessment Study process described in Section 7.4 of the GIDAP. SCE encourages the IC to review Sections 7.4 and 14.2.2 of the GIDAP for the rules and processes under which the financial responsibility might be reapportioned to the IC. Potential changes in the IC's cost responsibility resulting from application of the provisions of these Sections of GIDAP are not included in this QC7 Phase II study, nor are the potential impacts to the IC's maximum cost responsibility outlined.

15. Additional limitations may be driven by the ISO market and distribution system operations.

16. Please note that SCE has made its best efforts to convey as much information possible based on information provided by the IC about its proposed project. The information contained herein may indicate to ICs that a project of its magnitude may be better suited to interconnect at higher voltage levels, or downsize as to not incur significant amount of restrictions. Any determination to change POIs or downsize is purely at the IC's discretion and would be subject to a SCE material modification review pursuant to the tariff.

Attachment 1
Interconnection Facilities, Network Upgrades, and Distribution Upgrades
Please refer to separate document

Attachment 2
**Escalated Cost and Time to Construct for Interconnection Facilities, Reliability Network
Upgrades, Delivery Network Upgrades, and Distribution Upgrades**
Please refer to separate document

Attachment 3
Allocation of Network Upgrades for Cost Estimates and Maximum Network Upgrade Cost Responsibility

Attachment 4

Distribution Provider's Interconnection Handbook

Preliminary Protection Requirements for Interconnection Facilities are outlined in the Distribution Provider's Interconnection Handbook (separate document)

Attachment 5
Short Circuit Calculation Study Results
Please refer to the Appendix H of the Area Report

Attachment 6
Not Used

Attachment 7
SCE Northern Hemisphere Import Nomogram
Please refer to separate document

Queue Cluster 7 Phase II - Attachment 1
WDT1203 - [REDACTED]
Interconnection Facilities, Network Upgrades, and Distribution Upgrades

Interconnection Facilities, Network Upgrades, and Distribution Upgrades

Distribution Provider's Interconnection Facilities, Network Upgrades, and Distribution Upgrades described below the Distribution Provider's preliminary engineering and design. Such descriptions are subject to modification to reflect the actual facilities that are constructed and installed following the Distribution Provider's detailed engineering and design, identification of field conditions, and compliance with applicable environmental and permitting requirements.¹

1. Distribution Provider's Interconnection Facilities.

- (a) **Interconnection Customer's Interconnection Facilities.** The Interconnection Customer shall:

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

- (viii) Procure and construct underground duct banks and related structures required for Distribution Provider's Interconnection Facilities and Distribution Upgrades ("Civil Construction²") in accordance with specifications and designs provided by the Distribution Provider.
- (ix) Obtain all necessary permits and easements associated with the installation of Civil Construction.
- (x) If applicable, provide the following:
 1. Completed Interconnection Customer information sheet
 2. Street improvement plan(s)
 3. Unique address for Point of Interconnection

¹ Such descriptions are subject to modification to reflect the actual facilities that are constructed and installed following the Distribution Provider's detailed engineering and design, identification of field conditions, and compliance with applicable environmental and permitting requirements.

² The Interconnection Customer understands and acknowledges that the Civil Construction in support of the interconnection for the Project may be classified as the Interconnection Customer-constructed Distribution Provider interconnection facilities and/or Distribution Upgrades and may require transfer of ownership pursuant to Section 3 (1) under Appendix C of the GIA. The Interconnection Customer understands and acknowledges that it shall be responsible for the ITCC and ongoing monthly Interconnection Facilities Charge and/or Distribution Upgrades charge of the portion of Civil Construction and prior to the in-service date of the Civil Construction, Interconnection Customer shall provide to Distribution Provider the final invoiced costs of the portion of Civil Construction transferred to Distribution Provider and shall be an acceptable form to Distribution Provider.

Attachment 1 to QC7 PII Appendix A Report

4. Public right-of-way (street) base map(s) as required by the interconnection
 5. Site plot plan on a 30:1 scale digital file as follows:
 - a. Easements/lease agreement(s)
 - b. Grading plan(s)
 - c. Sewer and storm plot plan(s)
 - d. Landscape, sprinkler, pedestal location(s)
 - e. Complete construction of underground systems for the Distribution Provider's Interconnection Facilities and Distribution Upgrades
- (xi) Acquire an agreement from the property owner at [REDACTED] for the Distribution Provider to have the following:
1. The right to enter property owner's premises for any purpose connected with the Distribution Provider's Interconnection Facilities or interconnection service.
 2. The right for the use of a Distribution Provider approved locking device if Interconnection Customer wants to prevent unauthorized access to Distribution Provider's Interconnection Facilities.
 3. The right for safe and ready access for Distribution Provider's personnel free from unrestrained animals.
 4. The right for unobstructed ready access for Distribution Provider's vehicles and equipment to install, remove, repair, and maintain its Interconnection Facilities.
 5. The right to remove Distribution Provider's Interconnection Facilities after termination of interconnection service.
- (xii) Telemetry.
- In accordance with specifications provided by the Distribution Provider, provide the following in compliance with the telemetry requirements of the Interconnection Handbook:
- a. Allow the Distribution Provider to review and approve the Interconnection Customer's telemetry equipment design and perform inspections to ensure compatibility with the Distribution Provider's telemetry equipment; allow the Distribution Provider to perform acceptance testing of the telemetry equipment and the right to require the correction of installation deficiencies.
 - b. Provide broadband internet service to support communication of the telemetering data to the Distribution Provider's grid control center.
 - c. Provide and install a Distribution Provider approved serial device server ("SDS") in an approved enclosure located in an area with a suitable environment.
 - d. Provide a convenience power source to the SDS enclosure for SDS power.
 - e. Provide and install data communication cabling for the required telemetering data from the Interconnection Customer's data acquisition system to the SDS enclosure.

Attachment 1 to QC7 PII Appendix A Report

- f. Allow the Distribution Provider to terminate the data communication cables inside the Interconnection Customer's SDS enclosure and program the SDS.
- (xiii) Install, in coordination with, and as specified by, the Distribution Provider, a dedicated T1 circuit from the local telephone company to support the Remote Terminal Unit ("RTU") communication to the Distribution Provider's energy management system in accordance with the Distribution Provider's Interconnection Handbook if a RTU is installed locally at the Generating Facility³.
- (xiv) Designate, to the T1 circuit provider, the Distribution Provider as a representative authorized to report trouble to, and to initiate repairs with, the communication circuit provider on the Interconnection Customer's behalf in the event of an interruption of service on the communication circuit if a T1 circuit is required for the support of a RTU installed locally at the Generating Facility.
- (xv) Allow the Distribution Provider to review the Interconnection Customer's telecommunication equipment design and perform inspections to ensure compatibility with the Distribution Provider's RTU, or equipment related to an alternative approved by the Distribution Provider, and related terminal equipment; allow the Distribution Provider to perform acceptance testing of the telecommunication equipment and the right to request and/or to perform correction of installation deficiencies.
- (xvi) Provide required data signals, make available adequate space, facilities, and associated dedicated electrical circuits within a secure building having suitable environmental controls for the installation of the Distribution Provider's RTU, or equipment related to an alternative approved by the Distribution Provider, in accordance with the Distribution Provider's Interconnection Handbook.
- (xvii) Make available adequate space, facilities, and associated electrical circuits within a secure building having suitable environmental controls for the installation of the Distribution Provider's telecommunications terminal equipment in accordance with the Distribution Provider's Interconnection Handbook if a RTU is installed locally at the Generating Facility.
- (xviii) Install all required ISO-approved compliant metering equipment at the Generating Facility, in accordance with Section 10 of the ISO Tariff.
- (xix) Allow the Distribution Provider to install, in the switchgear provided by the Interconnection Customer, revenue meters, potential transformers ("PTs"), and current transformers ("CTs"), to meter retail load at the Generating Facility in accordance with the Distribution Provider's Electrical Service Requirements ("ESR") as described in the Distribution Provider's Interconnection Handbook.

³ The cost and scope of telemetry may significantly increase to include a dedicated RTU, as required by SCE's Interconnection Handbook, in the event that the centralized RTU method is not feasible for this project.

- (xx) Install all equipment necessary to comply with the power factor requirements of Article 9.6 of the GIA, including the ability to regulate power factor to a schedule (VAR schedule) in accordance with the Interconnection Handbook.
 - (xxi) Provide switchboard drawings which shall comply with Distribution Provider's ESR which can be obtained at:
<http://www.sce.com/AboutSCE/Regulatory/distributionmanuals/esr.htm>
 - (xxii) Install disconnect facilities in accordance with the Distribution Provider's Interconnection Handbook to comply with the Distribution Provider's switching and tagging procedures.
 - (xxiii) Install a breaker within the Interconnection Customer's property line in accordance with the ESR to comply with the Distribution Provider's protection requirements.
 - (xxiv) Install all equipment and controls necessary to maintain the Generating Facility's output ramp rate within the parameters set forth, and provided to the Interconnection Customer, by the Distribution Provider.
- (b) **Distribution Providers's Interconnection Facilities.** The Distribution Provider shall:
- (i) [REDACTED]
 - (ii) **Telecommunications.**
Install all required equipment (including terminal equipment) supporting the RTU including the communications interface with the Distribution Provider's energy management system. In accordance with the Distribution Provider's Interconnection Handbook, the Distribution Provider shall provide the required interface equipment at the Generating Facility necessary to connect the RTU to the Interconnecting Customer's T1 circuit if an RTU is installed locally at the Generating Facility. Notwithstanding that certain telecommunication equipment, including the telecommunications terminal equipment, will be located on the Interconnection Customer's side of the Point of Change of Ownership, the Distribution provider shall own, operate and maintain such telecommunication equipment as part of the Distribution Provider's Interconnection Facilities if an RTU is installed locally at the Generating Facility.
 - (iii) **Real Properties, Transmission Project Licensing, and Corporate Environmental Health and Safety.**
Obtain easements and/or acquire land, obtain licensing and permits, and perform all required environmental activities for the installation of the Distribution Provider's Interconnection Facilities, including any associated telecommunication equipment.

- (iv) **Metering.**
Install revenue meters and appurtenant equipment required to meter the retail load at the Generating Facility. Notwithstanding that the meters and appurtenant equipment will be located on the Interconnection Customer's side of the Point of Change of Ownership, the Distribution Provider shall own, operate and maintain such facilities as part of the Distribution Provider's Interconnection Facilities.
- (v) **Power System Control.**
Install [REDACTED] at the Generating Facility to monitor typical generation elements such as MW, MVAR, terminal voltage and circuit breaker status for the Generating Facility and plant auxiliary load, and transmit the information received thereby to the Distribution Provider's grid control center. Notwithstanding that the [REDACTED] will be located on the Interconnection Customer's side of the Point of Change of Ownership, the Distribution Provider shall own, operate and maintain the [REDACTED] as part of the Distribution Provider's Interconnection Facilities.

2. Network Upgrades.

- (a) **Stand Alone Network Upgrades.**
None identified as part of the Phase II study.
- (b) **Other Network Upgrades.**
 - (i) **Distribution Provider's Reliability Network Upgrades.**
None identified as part of the Phase II study.
 - (ii) **Distribution Provider's Delivery Network Upgrades.**
 - 1. **Area Delivery Network Upgrades.**
None identified as part of the Phase II study.
 - 2. **Local Delivery Network Upgrades.**
None identified as part of the Phase II study.

3. Distribution Upgrades.

The Distribution Provider shall:

- (a) [REDACTED]
- (b) [REDACTED] Install a [REDACTED] [REDACTED] at [REDACTED] to monitor the reverse power flow caused by the Project.
- (c) Power Systems Control: Perform associated programming work for the installation of the required [REDACTED]

Attachment 1 to QC7 PII Appendix A Report

(d) Real Properties, Transmission Project Licensing, and Corporate Environmental Health and Safety:

Obtain easements and/or acquire land, obtain licensing and permits; and perform all required environmental activities for the installation of the Distribution Upgrades, including any associated telecommunication equipment.

(e) Reconductor approximately [REDACTED]

4. Affected System Upgrades.

Not Used.

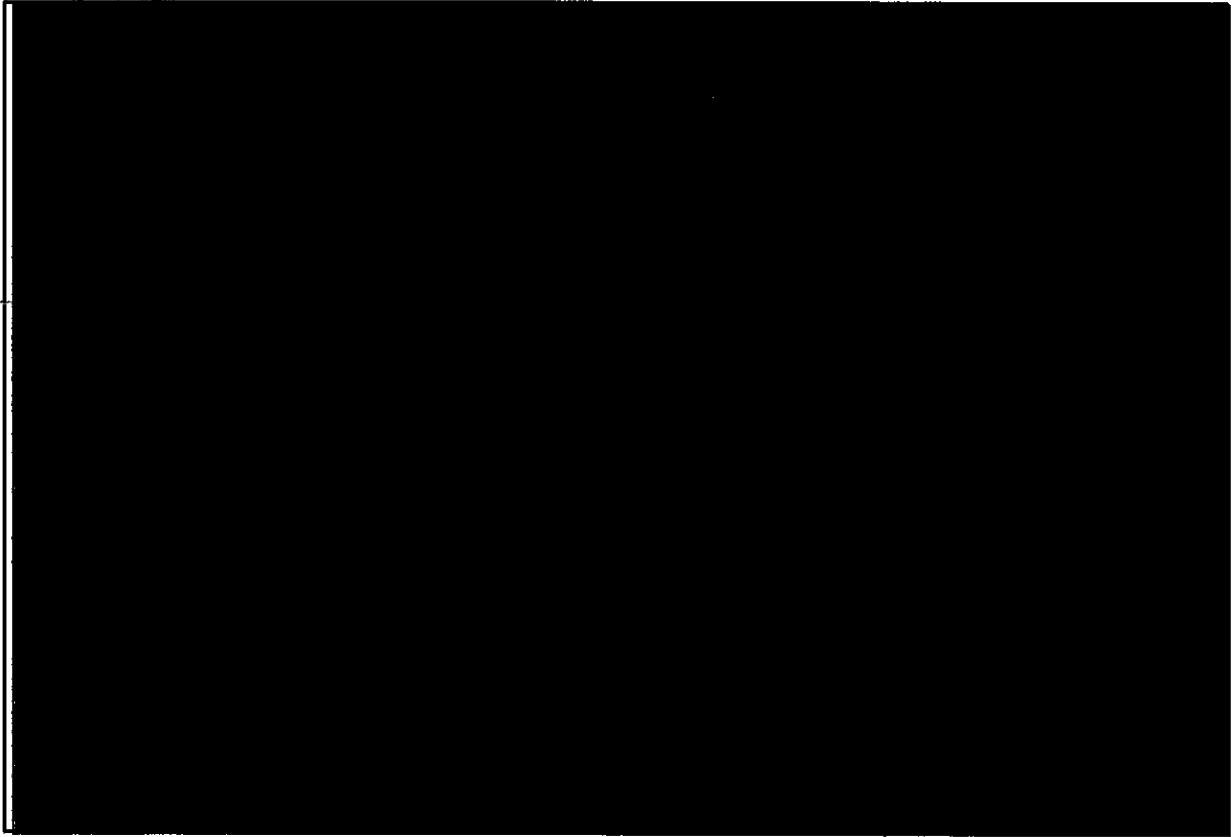
5. Point of Change of Ownership.

The Point of Change of Ownership shall be the point where the conductors of the Distribution Provider's Interconnection Facilities [REDACTED] line are attached to the Interconnection Customer's [REDACTED] at the last structure (location of the group operated disconnect). The Interconnection Customer shall own and maintain the Last Structure, the conductors, insulators and jumper loops from such Last Structure to the Interconnection Customer's Generating Facility. The Distribution Provider will own the insulators that are used to attach the conductors to the last structure.

6. Point of Interconnection.

[REDACTED] on the Distribution Provider's [REDACTED] Substation.

7. One-Line Diagram of Interconnection to [REDACTED]
[REDACTED]



Addendum to Appendix A – WDT1203



Addendum #1

Cluster 7 Phase II Final Report

December 24, 2015

This study has been completed in coordination with the California Independent System Operator Corporation (CAISO) per CAISO Tariff Appendix DD Generator Interconnection and Deliverability Allocation Procedures (GIDAP)

Project No.		No	Date	Document Title	Description of Document
WDT1203	[REDACTED]	2	12/24/2015	Addendum #1 to Queue Cluster 7 Phase II Appendix A Final Report	The purpose of this report is to publish the written comments provided by the IC to SCE in accordance with the timelines stated per Section 4.6.10 in GIP
WDT1203	[REDACTED]	1	11/24/2015	Queue Cluster 7 Phase II Appendix A Final Report	Report to disclose results of QC7 Phase II cluster.

Executive Summary

██████████ an Interconnection Customer (IC), received a Queue Cluster 7 Phase II (QC7 Phase II) study report dated November 24, 2015 for its Interconnection Request (IR) to Southern California Edison (SCE) for their proposed ██████████ (Project), queue position WDT1203.

Subsequent to the distribution of the report, to comply with GIP obligation to IC's written comments on interconnection studies as modified by FERC Order 792, SCE is publishing any written comments submitted by the IC per Section 4.6.10:

- Within ten (10) Business Days of receipt of the QC7 PII report, but in no event less than three (3) Business Days before the Results Meeting conducted to discuss the report; and/or
- Additional comments on the final QC7 Phase II Interconnection Study report up to (3) Business Days following the Results Meeting

This addendum report discloses below the written comments provided by the IC to SCE in accordance with the timelines stated in GIP for QC7 Phase II study report dated November 24, 2015. The Phase II study report is unaffected by this addendum report.

QC7 Phase II – WDT1203 – [REDACTED]

1. Written comments provided by IC within ten (10) Business Days of receipt of the QC7 PII report.

a. **GLOBAL QUESTIONS**

QUESTION #1

As we discussed in prior meetings the POI will now be located closer to the [REDACTED] along the [REDACTED]. The pole number closest to the [REDACTED]. This POI is will be located next to the POI for [REDACTED]. This is to say that WDT 1203 and [REDACTED] will build separate interconnection facilities.

b. **DOCUMENT ID: QC7PI-SCE-NOL-Area Report.pdf**

QUESTION # 1:

We don't appear to have received Appendix G, is it applicable to WDT1203?

QUESTION # 2:

Please confirm whether any of the SPSs in B.4 impact WDT1203

QUESTION # 3:

We note that Section B.6 states "...neighboring utilities may identify need for physical upgrades within their system not identified in the studies." Given the project interconnection voltage and transmission location, we believe this risk to be extremely low. Does SCE agree? When will the impact, if any, be known definitively?

QUESTION # 4:

Just want to confirm that none of the upgrades in B.5 constrain WDT1203?

QUESTION # 5:

Section B.2 says that solar operates at [REDACTED] (but can be adjusted) and at [REDACTED] for deliverability. Section B.8 says that generation is operated at [REDACTED] for deliverability. Please clarify.

QUESTION # 6:

Table D.1 indicates that under normal conditions there is an [REDACTED]. Was this result with or without congestion management? Was WDT1203 a contributor?

QUESTION # 7:

The note to Table D.2 indicates that [REDACTED] was included in the analysis although the units were retired on January 1, 2015. The three year period required by the CAISO Business Practice Manual would expire December 31, 2017. Looking at Table 1 of Appendix B, it appears that [REDACTED] accounted for [REDACTED] of the total of [REDACTED]. Given the project requested COD of June 2018 per Attachment B, is it reasonable to believe that with the expiration of the [REDACTED] contribution two months earlier, that WDT1203 has a negligible impact insofar as the RNUs and ADNUs?

QUESTION # 8:

Given the location of [REDACTED] and the discussion in Appendix I, we believe there is no relationship between the [REDACTED] SCD issues discussed in D.5.1 and WDT 1203 are uncorrelated. Please confirm.

QC7 Phase II – WDT1203 – [REDACTED]

QUESTION # 9:

Given the location of [REDACTED] and the discussion in Appendix I, we believe there is no relationship between the [REDACTED] discussed in D.5.1 and WDT 1203 are uncorrelated. Based on Appendix A Attachment 2 we believe that WDT 1203 has no cost responsibility for the [REDACTED]. Please confirm.

QUESTION # 10:

Please confirm that the [REDACTED] discussed in F.2.1 have no cost impact for WDT1203.

c. APPENDIX A

QUESTION #1

We are requesting the following changes to Table A.1:

- The current plan is to have [REDACTED]. If we maintain the same 5% impedance, is this a de minimis change?
- Advanced Energy, was the planned supplier of the inverters. They have since withdrawn from the market. What parameters must we adhere to so that the inverter change is a de minimis change? We understand we must have the capability for [REDACTED] as discussed in Section D.1.1 (ii)(a) as well as complying with the requirements of the Interconnection Handbook.

QUESTION #2

Please clarify the discussion in Section B regarding the supply of CTs and PTs. Please clarify who is providing and installing the PTs and CTs. Also please confirm that the same PTs and CTs can be used for both the SCE and IC provided CAISO revenue meter.

QUESTION #3

Please clarify how the VAR schedule discussed in Section C.3 will work in practice.

QUESTION #4

We believe the word "None" in the title of Section G is actually the response to the last question in Section F.

QUESTION #5:

Section N.14 essentially requires that if an earlier "approved" interconnection customer cancels their project, the portion of transmission system upgrades that the earlier project was paying for which our project was implicitly relying upon, that some or all of those costs could fall to us. If that happens, do we have an opportunity to exit the process without penalty other than forgoing already paid costs? What is SCE's experience with this happening for distribution level projects?

QUESTION #6:

Please confirm that when it comes to matters who is what responsible for what scope, that Appendix A Attachment 1 supersedes Appendix A Section B.

QUESTION #7

Appendix A of the project Phase 2 study report (Page 4, Section B.1) States the following:

"The project was modeled as with a [REDACTED] at the Generating Facility with its POI to the SCE Distribution System at the [REDACTED]"

QC7 Phase II – WDT1203 – [REDACTED]

[REDACTED] at the Point of Change of Ownership (POCO)."

Where is the [REDACTED] referred to here?

QUESTION #8

Appendix A of the project Phase 2 study report (Page 9, Section F.2) states the following:

"There are no deliverability constraints identified for the QC7 Phase II projects in the [REDACTED] Area"

Given that there are no earlier queued DNU requirement either, could CAISO and SCE confirm that the project will achieve FCDS upon IA COD?

QUESTION #9

Appendix A of the project Phase 2 study report (Page 9, Section G.1) states the following:

"As part of the QC7 interconnection process, a GIA is not scheduled to be tendered until after completion of the CAISO's Reassessment and Transmission Planning Deliverability (TPD) Allocation Study Process which does not commence until late January 2016. The TPD Allocation is scheduled to be completed by April 2016."

Given that this project is the only project in [REDACTED] why is there a need for TPD allocation at all?

d. **APPENDIX A ATTACHMENT 1**

QUESTION #1

See earlier questions regarding Table A.1.

QUESTION #2

Attachment 1 to Appendix A of the project Phase 2 study report (Page 3, Section 1.a.XIV) states the following:

"Designate, to the T1 circuit provider, the Distribution Provider as a representative authorized to report trouble to, and to initiate repairs with, the communication circuit provider on the Interconnection Customer's behalf in the event of an interruption of service on the communication circuit if a T1 circuit is required for the support of a RTU installed locally at the Generating Facility."

Please confirm that the telecom solution could be based on T1 circuit or equivalent?

QUESTION #3

Attachment 1 to Appendix A of the project Phase 2 study report (Page 3, Section 1.a.XIV) states the following:

"Designate, to the T1 circuit provider, the Distribution Provider as a representative authorized to report trouble to, and to initiate repairs with, the communication circuit provider on the Interconnection Customer's behalf in the event of an interruption of service on the communication circuit if a T1 circuit is required for the support of a RTU installed locally at the Generating Facility."

Please confirm that the telecom solution could be based on T1 circuit or equivalent?

QUESTION #4

Attachment 1 to Appendix A of the project Phase 2 study report (Page 6, Section 4) states the following:

"Not Used."

QC7 Phase II – WDT1203 – [REDACTED]

What does not used mean in the context of Affected System? Also Section H.1 of the cluster study shows miniscule impact on WECC paths. Isn't that sufficient evidence of lack of Affected System impact?

e. **APPENDIX A ATTACHMENT 2**

QUESTION #1

Given that the revised POI for WDT1203 is located [REDACTED] please discuss the impact on the costs listed in the attachment.

QUESTION #2

What is the difference between the costs labeled "Telecommunications" and those labeled "Telemetry"?

QUESTION #3

WDT 1203 plans to install its own CAISO compliant metering. Please confirm that this negates the need for the line item [REDACTED] In addition, what is the impact to other costs listed?

QUESTION #4

WDT 1203 is installing CAISO compliant telecommunications. Isn't it possible for the indicated IF's to piggyback on these comms?

QUESTION #5

Please explain the need for the [REDACTED]

f. **APPENDIX A ATTACHMENT 3**

We believe we didn't receive this Appendix. Is it applicable to WDT1203 since there were no network upgrades to allocate?

g. **APPENDIX A ATTACHMENT 4**

No comments.

h. **APPENDIX A ATTACHMENT 5**

See Appendix H.

i. **APPENDIX A ATTACHMENT 6**

Not used.

j. **APPENDIX A ATTACHMENT 7**

No comments.

k. **APPENDIX B**

QUESTION # 1:

Are there any other units in Appendix B Table 1 that have been or plan to be retired like Coolwater?

l. **APPENDIX C**

No comments.

ADDENDUM
IC SUBMITTED WRITTEN COMMENTS

QC7 Phase II – WDT1203 – [REDACTED]

- m. **APPENDIX D**
No comments.
 - n. **APPENDIX E**
Not applicable, Appendix E is not used.
 - o. **APPENDIX F**
QUESTION # 1:
Some of the plots (mostly those with congestion management) show frequency does not recover to [REDACTED] and in some case there significant oscillation in frequency and voltage.
Any design/equipment implications for WDT1203? We think not, but want to confirm.
 - p. **APPENDIX G**
We believe we didn't receive this Appendix. Is it applicable to WDT1203?
 - q. **APPENDIX H**
The [REDACTED] never appears in the tables.
 - r. **APPENDIX I**
Earlier question regarding our belief that the [REDACTED] issues discussed in D.5.1 are uncorrelated with WDT 1203. Please confirm.
 - s. **APPENDIX J**
Not used.
 - t. **APPENDIX K**
No comments.
2. Written comments provided by IC three (3) Business Days following the Results Meeting.
- a. None