
Appendix A – WDT1371ISP




Queue Cluster 9 Phase I Report

November 22, 2017

This study has been completed in coordination with the California Independent System Operator (ISO) per Southern California Edison Company's Wholesale Distribution Access Tariff, Attachment I Generator Interconnection Procedures (GIP)

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Attachments:

1. Interconnection Facilities, Network Upgrades, and Distribution Upgrades
2. Escalated Cost and Time to Construct for Interconnection Facilities, Reliability Network Upgrades, Delivery Network Upgrades, and Distribution Upgrades
3. Allocation of Network Upgrades for Cost Estimates
4. Distribution Provider’s Interconnection Handbook
5. Short Circuit Calculation Study Results (see Appendix H of the Area Report)
6. Customer Provided Project Dynamic Data
7. SCE Northern Hemisphere Import Nomogram

B. Study Assumptions

For detailed assumptions regarding the group cluster analysis, please refer to the QC9 Phase I Area Report.

C. Reliability Standards, Study Criteria and Methodology

The generator interconnection studies will be conducted to ensure the CAISO-controlled grid is in compliance with the North American Electric Reliability Corporation (NERC) reliability standards, WECC regional criteria, and the CAISO planning standards. Refer to Section C of the Area Report for details of the applicable reliability standards, study criteria and methodology.

D. Power Flow Reliability Assessment Results

Because the power flow reliability impacts of the Project have been identified in the System Impact Study, there were no identified power flow reliability issues associated with the Project in the QC9 Phase I Study.

E. Short Circuit Duty Results

The short circuit methodology for QC9 Phase I is discussed in the Area Report. Based on this methodology there are no Short Circuit Duty (SCD) mitigation costs allocated to the Project associated with the Full Capacity Deliverability Status.

F. Transient Stability Evaluation

Because the power flow reliability impacts of the Project have been identified in the System Impact Study, there were no identified transient stability issues associated with the Project in the QC9 Phase I Study.

G. Power Factor Requirements

For power factor requirements, please refer to the System Impact Study.

H. Deliverability Assessment Results

1. On Peak Deliverability Assessment

The Project does not contribute to any deliverability constraints.

2. Off- Peak Deliverability Assessment

Under off-peak conditions, Antelope – Vincent 500kV No. 1 and No. 2 transmission lines are overloaded under various contingency conditions. For details, see Section E.2 of the Area Report.

3. Required Mitigations

The Project is set to Option (A) for deliverability since the request was made through the Independent Study Process. No Area Delivery Network Upgrades are required under Option (A).

I. Interconnection Facilities, Network Upgrades, and Distribution Upgrades

Please see **System Impact Study** for the Interconnection Facilities, Reliability Network Upgrades, and Distribution Upgrades allocated to the Project.

J. Cost and Construction Duration Estimates

To determine the cost responsibility of each generation project in QC9 Phase I, the CAISO developed cost allocation factors (Attachment 3) for Reliability Network Upgrades and Local Delivery Network Upgrades. Attachment 2 provides the 'constant' 2016 dollars and their escalation to the estimated COD year for Network Upgrades associated with the Full Capacity Deliverability Status.

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. Items not covered in this study

For a list of items not covered in this study, see the Project ISP Interconnection Study report(s) and the QC9 Phase II Area Report.

Attachment 1
Interconnection Facilities, Network Upgrades and Distribution Upgrades

None as part of the QC9 Phase II study

Attachment 2
Escalated Cost and Time to Construct for Interconnection Facilities, Reliability Network Upgrades, Delivery Network Upgrades, and Distribution Upgrades

None as part of the QC9 Phase II study

Attachment 3
Allocation of Network Upgrades for Cost Estimates

No network upgrade cost is assigned to the Project as part of the QC9 Phase II study.

Attachment 4
Distribution Provider's Interconnection Handbook

Interconnection Handbook at the following link:

https://www.sce.com/wps/wcm/connect/348e4d71-5c2a-431f-bf78-16267486fdc9/Interconnection%2BHandbook_1483725988_1485215238.pdf?MOD=AJPERES

Attachment 5
Short Circuit Calculation Study Results

Please refer to System Impact Study Report.

Attachment 6
Customer Provided Project Dynamic Data

Please refer to System Impact Study report.

**Attachment 7
Not Used**