PJM Generator Interconnection Request
Queue #W1-101
Bayonne 13kV
Feasibility/Impact Study Report

July 2010
#604339

W1-101 Bayonne 13kV Feasibility/Impact Study

General

Public Service Electric and Gas Company has proposed installing a 1.4 MW AC solar project on the roof of the WEA Texas Bayonne building at 30-100 Pulaski Street, Bayonne, New Jersey. The commercial operation date is January 1, 2011 or before.

Direct Connection

There will be a separate service for the solar panels. The solar project will be connected to the Bayonne 8008 13kV circuit. The point of interconnection and metering will be on the low side of the 13kV/480V transformer. The connection to the transmission system is at Bayonne 138kV.

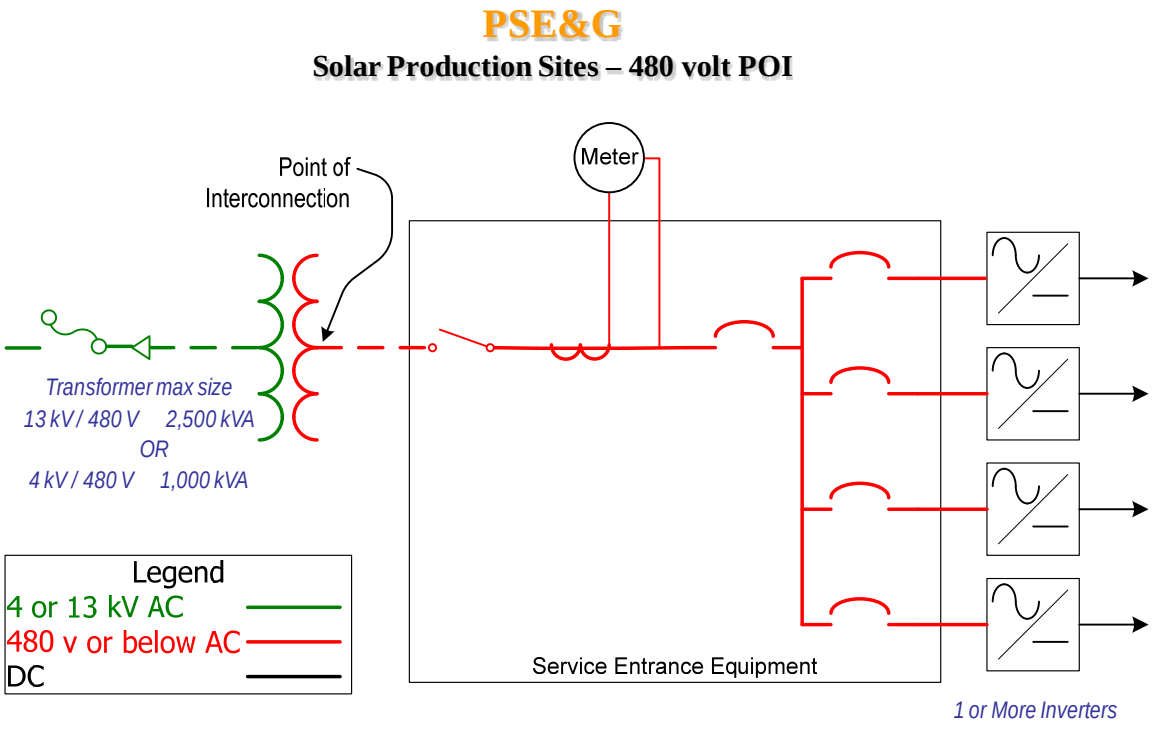
Preliminary Estimates

Project Item		Option A 13-Kv Single Line
Inside Plant		
Line Position/Feeder Row		-
Relay Protection		-
Manholes/Conduit		-
Other/Misc.		-
	Sub Total	$0
Outside Plant		
Overhead Line		$39,160
Underground Line		-
Manholes/Conduit		-
Other/Misc.		-
	Sub Total	$39,160
Metering/Monitoring		
Revenue Metering		$26,000
Telemetering/SCADA		$42,000
Feeder Metering		$75,000
Other/Misc.		-
	Sub Total	$143,000
Total Cost		**$182,160**

The cost in the Interconnection Agreement is exclusive of work required to be performed by the developer as specified in PSE&G's Information & Requirements for Electric Service Handbook. This work includes, but may not be limited to, the following:

- Developer is responsible for purchase and installation of all low voltage (277/480v) or high voltage (13-kV) service equipment as required for each site
- Developer will adhere to specifications detailed in the PSE&G Information and Requirements for electric service handbook
- Developer is responsible for all trenching and the installation of conduits and manholes as normally required and specified by PSE&G
- Developer must obtain all permits and easements required to install the interconnection facilities
- Developer must provide access for the installation, maintenance and operation of all service equipment

Figure #1



Network Impacts

Queue project W1-101 was studied as a(n) 1.4MW (0.532MW of which was Capacity) injection into PSEG's system at the Bayonne 13kV substation. Project W1-101 was evaluated for compliance with reliability criteria for summer peak conditions in 2014. Potential network impacts were as follows:

Generator Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

No problems identified

Multiple Facility Contingency

(Double Circuit Tower Line, Line with Failed Breaker and Bus Fault contingencies for the full energy output)

No problems identified

Short Circuit

(Summary form of Cost allocation for breakers will be inserted here if any)

No problems identified

Stability

Not required because the project is less than 30 MW.

System Reinforcements

None.

Energy Portion of Interconnection Request

(PJM also studied the delivery of the energy portion of the surrounding generation. Any potential problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Transmission Interconnection request.
Note: Only the most severely overloaded conditions are listed. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which analyzes all overload conditions associated with the overloaded element(s) identified. As a result of the aggregate energy resources in the area, the following violations were identified.)

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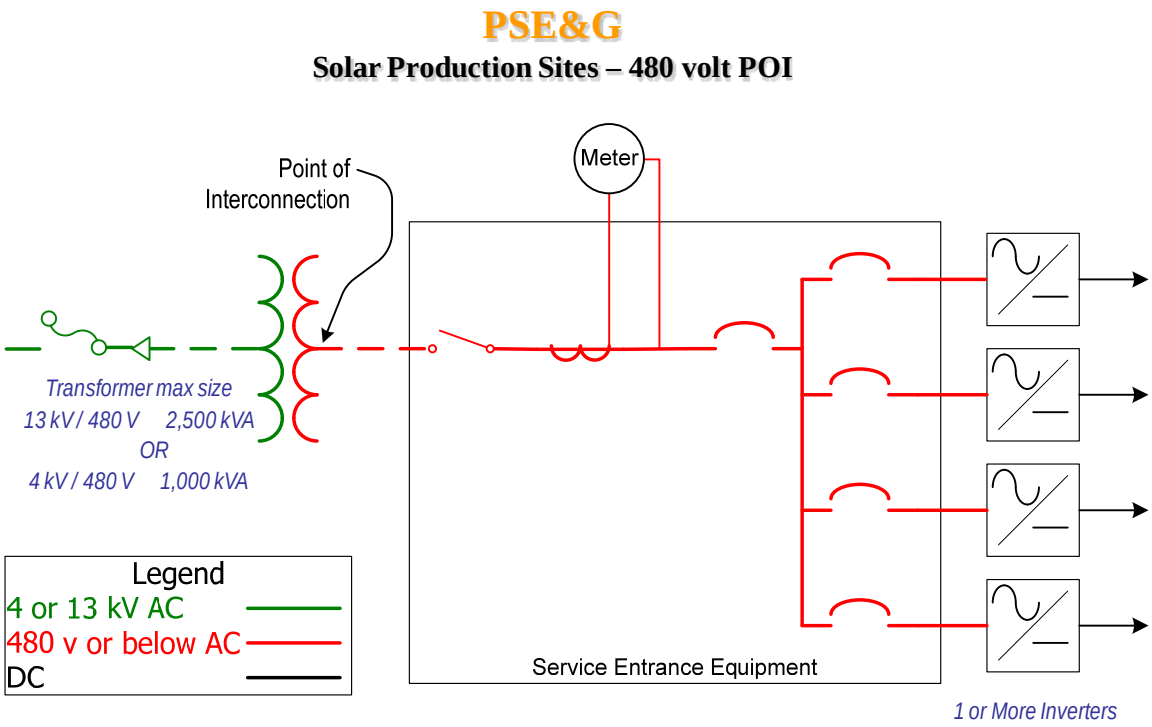

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