General

The Interconnection Customer (IC), is proposing to install 5.0 of Solar generation to be located in Gloucester County, New Jersey and has requested to be studied as a 5.0 MW Energy 1.9 MW Capacity) resource interconnecting into the PSE&G area. This means that the remaining 3.1 MW can be curtailed should a system reliability constraint occur. The IC has proposed in-service date is for June 1, 2014. The IC has requested a backfeed date of April 1, 2014.

This Generation Interconnection Feasibility Study provides analysis results to aid the IC in assessing the practicality and cost of incorporating the facility into the PJM system. This study was limited to load flow analyses of probable contingencies. If the IC elects to pursue a System Impact Study, a more comprehensive analysis will be performed.

Point of Interconnections

Y2-081 will interconnect with the PSE&G distribution system at one of two options. Option 1 is to connect at Beaver Brook 13 kV (Beaver Brook 8008). Option 2 is to connect at Deptford 13 kV (Deptford 8042).

Network Impacts

Queue project Y2-081 was studied as a(n) 5.0 MW (1.9 MW of which was Capacity) injection into PSEG's system at the Deptford substation. Project Y2-081 was evaluated for compliance with reliability criteria for summer peak conditions in 2016. 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.)

No problems identified.