Generation Interconnection Request
Queue Position V2-043

General

The Interconnection Customer (IC) has proposed a 12 MWE (4.56 MWC) solar powered generating facility to be located in Upper Deerfield Township, Cumberland County, New Jersey. PJM studied V2-043 as a 12 MW injection into the Atlantic City Electric's transmission system and evaluated the project for compliance with reliability criteria for summer peak conditions in 2013. The planned in-service date is June 30, 2010.

Point of Interconnection

V2-043 will interconnect with the Atlantic City Electric system as a direct connection into the 12kV side of the Laurel St. 69/12 kV substation.

Direct Connection Requirements

Transmission Owner Scope of Direct Connection Work

To be provided with TO's results.

Interconnection Customer Scope of Direct Connection Work

The Interconnection Customer assumes full responsibility for design and construction of all facilities associated with the V2-043 generating station and the 12 kV direct connection line on the IC side of the POI. Site preparation including grading and an access road, as necessary, is assumed to be by the developer. Route selection, line design, right-of-way acquisition and construction of lines will be entirely the responsibility of the IC.

The IC will be required to install metering and telemetry equipment to provide revenue metering and real-time telemetry data to PJM. The requirements for this equipment are listed in Appendix 2, Section 8 of Attachment O to the PJM Tariff, as well as PJM Manuals 01 and 14D. Protective relaying and metering design and installation must comply with Atlantic City Electric Applicable Standards.

Network Impacts

Potential network impacts are as follows:

Generator Deliverability

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

None

Multiple Facility Contingency

*(Double Circuit Tower Line, Line with Failed Breaker and, Bus Fault contingencies for the **Full** energy output.*

None

Contribution to Previously Identified Overloads

(This project contributes to the following contingency overloads, i.e. "Network Impacts", identified for earlier generation or transmission interconnection projects in the PJM Queue)

AEC Internal Study Analysis

1. The CARLLS CORNER2– SHERMAN#2 69kV (AEC) line (from bus 8226 to bus 8252 ckt 1) loads from 101.25% to 122.68% (DC power flow) of its emergency rating (56 MVA) for the loss of Carlls Corner – Laurel 69kV with the discrete unit outage of the P06 Generation at Cumberland. This project contributes approximately 12 MVA.

Short Circuit

Not required.

New System Reinforcements

(Upgrades required to mitigate reliability criteria violations, i.e. "Network Impacts," initially caused by the addition of this project's generation)

None

Contribution to Previously Identified System Reinforcements

(Overloads initially caused by prior Queue positions with additional contribution to overloading by this project.

1. To mitigate the CARLLS CORNER2– SHERMAN#2 69kV line overload will require the replacement of 7.90 miles of conductor. The estimated cost to perform this work is **$5,500,000** and will take **18-24 months** to complete following receipt of an executed Interconnection Service Agreement and Interconnection Construction Service Agreement.

Stability Analysis

Not required.

Potential Congestion due to Local Energy Deliverability

(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 below. There is no guarantee of full deliverability 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 identified overloaded element(s). As a result of the aggregate energy resources in the area, the following violations were identified:

None.