Generation Interconnection Feasibility Study Report Queue Position Z1-052

The Interconnection Customer (IC), has proposed a 64.5 MW MFO; 64.5 MWE; 44.5 MWC uprate to their prior queue position X4-035 project. PJM studied Z1-052 as a 64.5 MWE; 44.5 MWC injection into the PEPCO system at a tap of the Chalk Point-Burches Hill 500 kV circuit and evaluated it for compliance with reliability criteria for summer peak conditions in 2017.

Point of Interconnection

Z1-052 will utilize the same Point of Interconnection as the X4-035 project (see Attachment 1).

Transmission Owner Scope of Work

The scope of work and estimated costs are as follows:

There is no Transmission Owner work for the Z1-052 project.

Interconnection Customer Scope of Work

The Interconnection Customer (IC) is responsible for all design and construction related to activities on their side of the Point of Interconnection (POI). Site preparation, including grading and an access road, as necessary, is assumed to be by the IC. Route selection, line design, and right-of-way acquisition of the direct connect facilities is not included in this report, and is the responsibility of the IC.

Revenue Metering and SCADA Requirements

PJM Requirements

The Interconnection Customer will be required to install equipment necessary to provide Revenue Metering (KWH, KVARH) and real time data (KW, KVAR) for IC's generating Resource. See PJM Manuals M-01 and M-14D, and PJM Tariff Sections 24.1 and 24.2.

Pepco Requirements

The Interconnection Customer will be required to comply with all Pepco Revenue Metering Requirements for Generation Interconnection Customers. The Revenue Metering Requirements may be found within the "Technical Considerations Covering Parallel Operations of Customer Owned Generation of One (1) Megawatt of Greater and Interconnected with the PHI Power Delivery System" document located at the following link:

http://www.pjm.com/planning/design-engineering/to-tech-standards.aspx

Transmission Network Impacts

Potential transmission 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)

None

Short Circuit

No breakers were identified as over-duty.

Stability and Low Voltage Ride Through Analysis

Will be performed during the System Impact study phase of the project (if required).

Light Load Analysis

Light Load Studies to be conducted during later study phases (applicable to wind, coal, nuclear, and pumped storage projects).

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. Cost allocation for these overloads will be provided in the System Impact Study Report.

None

Potential Congestion due to Local Energy Deliverability

PJM also studied the delivery of the energy portion of this interconnection request. Any problems identified below are likely to result in operational restrictions to the project under study. The Interconnection Customer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.
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 will study all overload conditions associated with the overloaded element(s) identified.

These are ***not*** required reliability upgrades.

None