#V2-045 Bayview 20 MW

Generation Interconnection

This analysis was completed to assess the reliability impact for a new generator interconnecting to the PJM system as a Capacity Resource.

Network Impacts

Queue V2-045 was studied as a 20 MW (energy) / 12.4 MW (capacity) injection into the Bayview 69 kV or 25 kV bus. V2-045 was evaluated for compliance with reliability criteria for summer peak conditions in 2013. Potential network impacts were as follows:

NETWORK IMPACTS

Generator Deliverability

(Overloads for Normal System, Single or N-1 contingencies caused by this queue at a MW output equal to the requested Capacity for the interconnection)

No problems identified.

Multiple Facility Contingencies

(Overloads for Double Circuit Tower Line, Stuck Breaker and Bus Fault contingencies caused by this queue at full energy output)

No problems identified.

Contribution to Overloads Subject to Cost Allocation

(This project contributes greater than the PJM cost allocation threshold amount of loading to the following contingency overloads, i.e. "Network Impacts" which were identified for other relative Queues subject to cost allocation.)

None identified.

Note: The VIENNA-STEELE 230kV line (from bus 9069 to bus 9068 ckt 2) loads from 144.69% to 146.35% of its emergency rating (551MVA) for the line fault with stuck-breaker contingency (DP11) as a result of V2-045. This project contributes approximately 8.73MW to the thermal violation. However since this contingency overload was first determined to be a baseline violation, Delmarva is 100% responsible for the required Baseline Upgrade.

Short Circuit

No problems identified.

Stability Analysis

Not required because of generator size, technology and Point of Interconnection.

NETWORK UPGRADE REQUIREMENTS

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

None required.

Contribution to Previously Identified System Reinforcements
(Overloads initially caused by other Queue positions with contribution to the overloading by this project. This project will have a % allocation cost responsibility)

None.

Short Circuit Upgrades

None.