Generation Interconnection Feasibility Study Report Queue Position AC1-035

General

Interconnection Customer has proposed an ***uprate*** to prior queue project A01 consisting of a 2 x 1 combined cycle natural gas generation facility located in Lebanon County, PA. The increased capability associated with this queue position is achieved through efficiencies that maximize the utilization of existing plant equipment. The proposed in-service date for the AC1-035 project is 11-30-2017. **This study does not imply a Mid-Atlantic Interstate Transmission, LLC ("Transmission Owner" or "MAIT") commitment to this in-service date.**

Point of Interconnection

AC1-035 will interconnect with the MAIT transmission system through existing split POI of prior queue project A01, bus # 204518, 230 kV bus side. Please refer to the single-line diagram in Appendix 2 for system configuration.

Network Impacts

The Queue Project AC1-035 was evaluated as a 30.0 MW (Capacity 30.0 MW) injection into the substation tapping the tie line between South Lebanon line and the Ironwood Tap of North Hershey-Lyons line in the METED area. Project AC1-035 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AC1-035 was studied with a commercial probability of 53%. Potential network impacts were as follows:

Summer Peak Analysis - 2020

Generator Deliverability

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

None.

Multiple Facility Contingency

(Double Circuit Tower Line, Fault with a Stuck 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.

Steady-State Voltage Requirements:

To be determined during the system impact study phase.

Short Circuit:

None.

Affected System Analysis & Mitigation

NYISO Impacts:

None.

Delivery of Energy Portion of Interconnection Request

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 developer 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.

Not Applicable.

Light Load Analysis – 2020:

None.

System Reinforcements

Short Circuit:

None.

Stability and Reactive Power Requirement:

To be determined during the system impact study phase.

Summer Peak Load Flow Analysis Reinforcements:

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

None.

Contribution to Previously Identified System Reinforcements:
(Overloads initially caused by prior Queue positions with additional contribution to overloading by this project. This project may have a % allocation cost responsibility which will be calculated and reported for the Impact Study):

None.

Light Load Load Flow Analysis Reinforcements:

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

None

Contribution to Previously Identified System Reinforcements:
(Overloads initially caused by prior Queue positions with additional contribution to overloading by this project. This project may have a % allocation cost responsibility which will be calculated and reported for the Impact Study):

None