Generation Interconnection Feasibility Study Report Queue Position AC1-097

General

Interconnection Customer has proposed a natural gas, 2 x 1 combined cycle generating facility located in Masontown, PA. The installed facilities will have a total capability of 1140 MW with 1040 MW of this output being recognized by PJM as capacity. The proposed in-service date for this project is 6-1-2021. **This study does not imply a West Penn Power ("Transmission Owner") commitment to this in-service date.**

Point of Interconnection

AC1-097 will interconnect with the West Penn Power transmission system through direct injection into Hatfield Substation, bus number 235108. There is no secondary POI for this project. Please refer to the single-line diagram in Appendix 2 for system configuration.

Network Impacts

The Queue Project AC1-097 was evaluated as a 1140.0 MW (Capacity 1040.0 MW) injection at the Hatfield 500kV substation in the APS area. Project AC1-097 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AC1-097 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 later study phases.

Short Circuit: None.

Affected System Analysis & Mitigation

NYISO Impacts: To be determined during later study phases.

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.

None.

Light Load Analysis – 2020:

Light load studies to be conducted during later study phases (as required by PJM Manual 14B)

System Reinforcements

Short Circuit:

None.

Stability and Reactive Power Requirement:

To be determined during later study phases.

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.