#Q40 Renova – Lock Haven 40 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

The Queue Q40 project was studied as a 40MW injection into the Lock Haven 69kV substation for summer peak conditions in 2011. This project was evaluated as an "Energy" facility for 40MW and as a "Capacity" resource for 8MW. Network impact results were as follows:

Generator Deliverability (single contingency)
No problems identified.

Local System Impacts
No problems identified.

Multiple Facility Contingency (MAAC Criteria IIC)
No identified problems.

Short Circuit Analysis
The three-phase symmetrical short circuit duty at the 69kV point-of-connection, with Q40 generation in-service, is estimated to be approximately 4,089Amps. The phase-to-ground symmetrical short circuit duty will be approximately 2,463Amps. No 69kV breakers at the Lock Haven are overdutied with the addition of Q40.

Stability (MAAC Stability Criteria)
Stability analysis will be performed during Impact Study.

Network Upgrade Requirements
No network upgrades are required.

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