#Q25 – Donegal-Iron City 138kV

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 #Q25 project was studied as an 80 MW (16 MW of Capacity) resource into a tap of the Donegal-Iron City 138 kV line in the APS territory. Project #Q25 was evaluated for compliance with reliability criteria for summer peak conditions in 2011. Potential network impacts were as follows:

Generator Deliverability
No problems were identified

Multiple Facility Contingency
No problems were identified

Contribution to Previously Identified Overloads
No problems were identified

New System Reinforcements
None

Contribution to Previously Identified System Reinforcements
To be determined at the System Impact Study

Short Circuit
No overdutied breakers were identified.

Listed below are the positive and zero sequence source equivalent impedance at the Bullskin site with the GSU and generators OPEN.

Positive: (0.00897 + j0.05722)
Zero: (0.05311 + j0.15955)

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.

As a result of the aggregate energy resources in the area, the following violations were identified:

No problems were identified.