Q55 – Snowy Creek

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 #Q55 project was studied as a 100-MW (20 MW of Capacity) injection at the Snowy Creek 138 kV facility in APS. Project #Q55 was evaluated for compliance with reliability criteria for summer peak conditions in 2011. Potential network impacts were as follows:

Generator Deliverability

138/69 kV transformers at William and Snowy Creek become overloaded.

Multiple Facility Contingency

No problems were identified

Contribution to Previously Identified Overloads

No problems were identified

New System Reinforcements

Replace transformers at William and Snowy Creek.

Contribution to Previously Identified System Reinforcements

To be determined at the System Impact Study

Short Circuit

No overdutied breakers were identified.

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:

Contribution of 6 MW further overloads the Parsons to Loughs Lane from 137% to 142% of its emergency rating (126 MVA) for the tower outage of 230 kV lines 227 & 274. The thermal violation was first caused by the P52 project.