Generation Interconnections

This analysis was completed to assess the reliability impact for a new generator interconnecting to the PJM system as a Capacity resource.

Network Impacts - 32 MW Injection

Injection of 32 MW into the Croydon 230kV substation was evaluated for network impacts. The following impacts were determined:

Normal System

No identified problems.

Tower Line Outages (MAAC Criteria IIC)

No identified problems.

Generator Deliverability

The 230kV circuit from Eddington - Eddington Tap was loaded to 101% of the emergency rating (856MVA) due to an outage of Emilie - Neshaminy 138kV circuit. Project #E20 contributes approximately 15 MW to the facility loading.

Short Circuit Analysis

No identified problems.

System Reinforcements

The overload of the Eddington- Eddington Tap line can be alleviated by reconductoring at an estimated cost of $2.0M. The line is approximately four (4) miles long and is single conductor 1590 ACSR. Reconductoring the line with single conductor 1590 ACSS will increase the emergency rating to 1258 MVA.

The estimated time needed for delivery and installation of the equipment for this upgrade project is 18 months.