# 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 - 550 MW Injection**

Injection of 550 MW into the Salem - East Windsor 500kV line was evaluated for network impacts. The following network impacts were identified:

## Normal System

- No identified problems

## Tower Line Outages (MAAC Criteria IIC)

- No identified problems.

## Generator Deliverability

- The Red Lion 500/230kV transformer was loaded to 99% of the emergency rating (1067 MVA) due to an outage involving the Keeney-Red Lion 500kV circuit. Project D27 contributes approximately 61 MW to the facility loading. Although this facility did not appear to be a reliability problem during this feasibility study, the modeling assumptions in the impact study may cause the loading on the facility to increase above the 100% reliability threshold.

## Short Circuit Analysis

- No identified problems.

## System Reinforcements

The Red Lion 500/23kV transformer overload can be eliminated by the addition of another Red Lion 500/230kV transformer. The cost is estimated at $8,800,000. This upgrade also had been identified for Project #D15.