

## **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 - 10MW Injection**

Injection of 316 MW into the Burlington 138kV substation was evaluated for network impacts. The following potential impacts were identified:

### **Generator Deliverability**

- Burlington - Levittown 138 kV J circuit was overloaded at 112 % of the emergency rating (671 MVA) for the outage of the Burlington – Levittown – Hoeganeas - Camden 138 kV line. The project contributes 185 MW to the contingency flows on the J circuit.
- Cinnaminson - Camden 138 kV J circuit was overloaded at 105% of the emergency rating (451 MVA) for the outage of the Burlington – Levittown – Hoeganeas - Camden 138 kV line. The project contributes 185 MW to the contingency flows on the J circuit.
- Burlington - Levittown 138 kV I circuit was overloaded at 115 % of the emergency rating (451 MVA) for the outage of the Burlington – Levittown – Cinnaminson -Camden 138 kV line. The project contributes 150 MW to the contingency flows on the I circuit.
- Levittown - Hoeganeas 138 kV I circuit was overloaded at 101% of the emergency rating (405 MVA) for the outage of the Burlington – Levittown – Cinnaminson -Camden 138 kV line. The project contributes 150 MW to the contingency flows on the I circuit.

### **Multiple Facility Contingency – Tower Line Outages (MAAC Criteria IIC)**

Burlington- Levittown 138 kV J circuit was overloaded at 109% of the emergency rating (671 MW) for the outage of the Cox's Conner - Camden 230 kV and Camden – Burlington 138 kV line. The project contributes 170 MW to the contingency flows on the J circuit.

### **Short Circuit**

No identified problems.

### **New System Reinforcements**

The Burlington - Camden 138 kV I and J circuits can be uprated to relieve the previously identified overloads. The overloaded sections of the I and J circuits can be rebuilt at a cost estimate of \$20 million with a 4 year lead time. It may be possible to reduce the cost of the uprate if the I and J circuits can be reconductored without the need to replace or strengthen the existing structures.

### **Cost Allocation**

Project #B9B was previously identified to be responsible for reconductoring the J circuit from Burlington to Levittown, and replacing terminal equipment at Cinnaminson. There may be an allocation between projects #B9B and #G11 for the uprate of the Burlington – Cinnaminson J circuit.