

## **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 - 870 MW Capacity Injection**

Capacity injection of 870 MW into the Cromby 230 kV bus was evaluated to determine Network Impacts. The following potential network upgrade requirements determined:

#### **Generator Deliverability**

No identified problems.

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

No identified problems.

#### **Short Circuit**

The #18 project potentially contributes to the need of upgrading or replacing several circuit breakers in the Cromby area. The total cost of potential circuit breaker upgrades and replacements is approximately \$5.00 million

#### **New System Reinforcements**

None

#### **Contribution to Previously Identified System Reinforcements**

The #18 project contributes to the need for the following previously identified network reinforcements:

1. Installing a second 500/230kV transformer at TMI substation. The #18 project contributes approximately **68MW**. The total cost to install the second transformer and a 500kV and 230kV breakers for termination of the transformer into the bus is estimated at \$13 million and is expected to take two years to complete.
2. Rebuild the Gracetone – Raphael 230kV circuit. The #18 project contributes approximately **45MW**. The total cost is estimated at \$17 million and it is expected to take four years to complete.
3. Install a new 500 kV circuit breaker at Conastone substation. The #18 project contributes approximately **62 MW**. The total cost is estimated at \$1.4 and it is expected to take two years to complete.
4. Replace terminal equipment at Peach Bottom 500kV substation to increase the rating of the Conastone – Peach Bottom 500kV circuit. The #18 project contributes approximately **151MW**. The total cost is estimated at \$0.5 million and it is expected to take one year to complete.
5. Reconductor the B48 – Gracetone 230kV circuit. The #18 project contributes approximately **46MW**. The total cost is estimated at \$1.8 million and it is expected to take two years to complete.

Cost allocation percentages are not provided as part of the Feasibility Study analysis, however, cost allocation will be provided during the Impact Study evaluations.