

## 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 - 340MW Injection

Injection of 340 MW into the Chalk Point 500kV substation was evaluated for network impacts. The following potential impacts were identified:

### Generator Deliverability

- 1) The Burtonsville – Sandy34T 230 kV circuit is contingency overloaded at 102% of the emergency rating (680 MVA) for the outage of Waugh Chapel – High Ridge (2338) 230 kV circuit. The project contributes approximately 24 MW to the loading on this circuit.

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

No identified problems.

### Short Circuit

No identified Problems.

### New System Reinforcements

The Sandy Springs-Burtonsville 230 kV circuit contingency overload can be mitigated with an upgrade to equipment at Burtonsville 230 substation. This Burtonsville 230kV reinforcement requirement includes upgrade of strain busses, metering, disconnect switches and the HVCB isolation switch. With these upgrades, the rating can be increased to 790/923 MVA (S/N & S/E).

The Burtonsville 230kV upgrades are estimated to cost **\$250,000**.

Estimated construction time is **4 months**.

### Contribution to Previously Identified System Reinforcements

Project #G35 may be responsible for an allocated percentage of the costs for the previously identified network reinforcements as follows:

- 1) The project contributes approximately **23 MW** to the overload on the Oak Grove – Bowie - Burtonsville (23045) 230 kV circuit. The overload can be relieved by bundling the existing circuit at estimated cost of **\$8.4 million**.
- 2) The project contributes approximately **24 MW** to the overload on the Oak Grove – Bowie – Burtonsville (23042) 230 kV circuit. The overload can be relieved by bundling the existing circuit at estimated cost of **\$8.4 million**.

The total estimated cost for **previously identified network upgrades** is **\$16.8 Million**. Project #G35 will be required to share the cost of these upgrades. Project #G35's cost allocation will be determined as part of the #G35 Impact Study.