

Allegheny Power Special Protection Scheme (SPS)

Belmont Substation

March, 2010

Belmont SPS

- Condition:
 - Outage of both the Harrison to Belmont No 528 500kV line and the Belmont 765/500 kV Transformer (or its 765kV source-AEP's Kammer to Mountaineer 765 kV line).
- Result:
 - Stability issues for the local generation at Pleasants and Oak Grove Substations and thermal overloads on the 138kV lines in the area.
 - Recently PJM recognized insufficient redundancy in the following operating procedure used to address this issue and began curtailing the Pleasants generator output under these outage scenarios to resolve the stability issue.
- Procedure:
 - Upon outage of either facility listed above arm the Operating Procedure currently outlined in PJM Transmission Operations Manual 3 as Pleasants and Oak Grove Operating Restrictions (This procedure trips both Oak Grove Combustion Turbines and a selected Pleasants Unit for the loss of the remaining facility listed in the condition above).
- Action:
 - Provide redundancy for the Operating Procedure currently armed when needed to protect the local facilities and designate it the Belmont SPS.

