



# 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 - 400 MW Injection

Single contingency analysis, towerline outage analysis, and a short circuit screening were performed for attachment of a 400MW generating station to the 230 kV line section between the Colora Tap on Conowingo - Nottingham 230 kV (220-03 line) and the Colora Substation. As a result of these analyses, the following network impacts and system upgrade requirements were identified:

The Colora Tap - Nottingham 230kV line section of the Conowingo - Nottingham 230 kV (220-03 line) was overloaded for single contingency conditions. It is estimated to cost \$2 Million, and take 18 months, to reconductor this 7.4 mile section of line.

It is also necessary to install a 230/138 kV transformer at Cecil substation at an estimated cost of \$ 2.2 Million and 16 months to construct.

Existing transmission system plans for the DP&L zone indicate that the installation of a 230/138 kV transformer at Cecil substation is one alternative to alleviating system problems that occur in the Cecil area and may be required at some time in the future regardless of the interconnection of the proposed new generation..

Short circuit screening results indicate that there were no overstressed circuit breakers due to proposed generator. Note: Short circuit analysis should be rerun when actual unit and transformer data are available.