

PHI RTEP 2011 Modeling and Procedures

March 2, 2011

General

- PHI maintains real time cases for each area ACE, DPL, and Pepco
- PSSE load flow cases are developed for the upcoming summer, two summers out, 3 summers out, 5 summers out, and ten summers out
- PHI base cases are peak cases
- PHI works with PJM to ensure the transmission system is planned to meet all NERC reliability criteria inclusive of NERC TPL-001 through NERC TPL-004

Case Creation

- The previous year's summer peak values and 5 year forecasted values are compiled for all internal distribution busses and wholesale customers
- The peak values are input into the case (most recent MMWG series, RTEP case) and scaled to the PJM January 2011 50/50 load forecast for each respective area
- All RTEP projects with in-service dates prior to the subject study summer are modeled as in-service in the cases
- Generators are modeled in accordance with the PJM queue listing and retirement schedule
- Machine Pmax values are set to 100% of their summer capacity ratings, as per the latest version of the EIA-411 data

Studies

- For each study year, discrete generator unit outage cases are created
- MUST is utilized to execute N-1 analysis on each case created
- PHI utilizes analysis to confirm PJM study results and provide detailed internal study results as documented in FERC 715 filing
- Additional cases are obtained from PJM on an as needed basis to perform sensitivity studies

Conclusions

- PHI will provide recommended solution inclusive of cost and construction timeline estimates to resolve PJM violations
- Any violations related to PHI's internal transmission planning criteria will be communicated to PJM with proposed solutions to be implemented as an RTEP or PHI identified supplemental project