



2015 RTEP Modeling Procedures



Pepco Holdings, Inc. (ACE/DPL/PEPCO)

February 4, 2016

General

- PHI maintains real time cases for each area ACE, DPL, and Pepco;
- PSSE load flow cases are developed for the upcoming summer, 2 summers out, 3 summers out, 5 summers out, and 10 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.

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 2016 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-860 report.

Studies

- For each study year, discrete generator unit outage cases are created;
- An N-1 analysis on each case is implemented;
- PHI performs analysis to confirm PJM study results and to provide detailed internal study results as documented in FERC 715 filing;
 - *Note – PHI reviews its FERC 715 criteria annually and updates with any necessary revisions*
- Additional cases are obtained from PJM and/or PHI System Operations on an as needed basis to perform sensitivity studies (e.g. light load studies, operational issue review, etc.).

Supplemental Projects

- PHI's Transmission Planning Department also recommends projects that do not violate PJM Planning criteria or PHI's filed FERC 715 criteria, but are instead needed to maintain local reliability. Drivers for such projects, include but are not limited to:
 - Proactively addressing the age and condition of transmission facilities (PHI considers factors such as physical condition obtained from inspections, asset health index reports, material obsolescence, age, etc. to determine the potential risk associated with continued operation of the facility);
 - Incorporating new load into the system, including transmission facilities that are necessary to support new distribution load in addition to the interconnection of wholesale and major customers;
 - Enhancing system resiliency and reliability through system improvements such as undergrounding lines, reconfiguring supplies and adding breakers to minimize the adverse impacts of outages;
 - Increasing operational performance of the local system through collaboration with PHI's real time system operations department assessments;

Conclusion

- Any violations related to PHI's internal transmission planning criteria will be communicated to PJM and baseline solutions will be developed per PJM Tariff and Operating Agreements;
- Supplemental Projects will be communicated to PJM at either the TEAC or Sub-Regional RTEP meetings and will include detail around the project scope, timeline, specific needs driving the project, etc. and the opportunity to solicit stakeholder comments and promote transparency.