2019 ITP/TPL-001 Base Reliability (BR) Model Updates

SPP staff has identified two (2) first tier model issues requiring model updates. The model issues created non-converged cases and could potentially impact the economic constraint assessment. Models correcting these issues have been posted to GlobalScape, including the updated 2019 ITP Model Update Matrix and SPP DocuCode. The two first tier model issues are:

- Swing machine dispatched greater than its PMAX
- Duplicate 230 kV line caused by an incorrectly applied idev

PSSE has a limitation of ten swing machine buses for ACCC analysis. An additional update was applied to the models to change a swing machine bus to a generator bus in the New England region in order to allow ACCC analysis to be ran on the models.

The models were built using PSS®E version 33.10. **The TWG will be requested to approve the updated 2019 ITP BR Final Models during the September 12, 2018 net conference.**

As a reminder, the following models will be used for the 2019 ITP:

- 2021 Base Reliability Light Load, Summer, and Winter models
- 2024 Base Reliability Light Load, Summer, and Winter models
- 2029 Base Reliability Light Load, Summer, and Winter models

Material Disclaimer

CONTAINS CONFIDENTIAL AND PROTECTED MATERIAL AND/OR CEII – DO NOT RELEASE

Information for obtaining posted data:

These files can be found on GlobalScape under: ITP → ITP → NCD (CEII, RSD) → NDA → 2019 ITP → 2019 ITP Powerflow Models → Pass 5e Final

File Name	Description
2019_ITP_Model_Update Matrix_5e_Final.xlsx	List of model updates for the 2019 ITP BR Final models
2019_ITP_BR_5e_Final_Raw_v33.zip	2019 ITP BR Final models in .RAW file format
2019_ITP_BR_5e_Final_Sav_v33.zip	2019 ITP BR Final models in .SAV file format
2019_ITP_BR_5e_Final.xlsx	2019 ITP BR Final models SPP DocuCode

In order to obtain access to these documents in GlobalScape, stakeholders must provide SPP with a signed confidentiality agreement. Instructions can be obtained by clicking on the link. Please submit these forms via **RMS** through the "Request GlobalScape Access" Quick Pick. After the executed confidentiality agreement is received, an account will be created for the requester on GlobalScape and an email with instructions for logging in will be sent to the requester. For those that already have a GlobalScape account, no additional action is necessary.

As a reminder, instructions for requesting access to the model information can be found on the SPP website here.

Brief Description of Scenario Models:
The Base Reliability scenario models assume expected long-term firm transmission service usage levels. Wind and Solar resources are dispatched at each facility's latest 5-year average for the SPP coincident summer peak[1] in the Summer Peak models as well as the SPP coincident winter peak in the Winter Peak models. Wind resources are dispatched at 100% of the Long-term Firm Transmission Service amount in the Light Load models, while Solar is dispatched at its historical average, which is typically 0 MW during the Light Load timeframe.

In all Base Reliability models, the Wind and Solar are not to exceed each facility's firm service amount. In the event that 5 years of historical renewable resource output data is unavailable, SPP will follow the TWG-approved data replacement methodology.

Helpful Links

- Transmission Owner Selection Process (formerly Order 1000) home page
  - Order 1000 Documents
  - Detailed Project Proposal (DPP) page
- SPP Transmission Planning Page
  - All notice postings previously on the SPP.org home page are now on this page
  - ITP Postings (formerly in Order 1000 Documents folder) here
- SPP Request Management System (SPP RMS) is the preferred method for inquiries and data submissions. Click on this link and then "Register Now" if you are not already registered.
  - Quick Picks to use in RMS:
    - "**Request GlobalScape Access**" Quick Pick for access to GlobalScape for models
    - "**ITP-Project Inquiry**" Quick Pick for questions/comments regarding projects
    - "**ITP-Modeling Inquiry**" Quick Pick for input regarding modeling
    - "**ITP-DPP Submittal**" Quick Pick for DPP submissions
    - "**ITP-Data Submission**" Quick Pick for responses to ITP data requests and surveys from SPP
- SPP RMS is the preferred method for receiving all inquiries and solution submittals.

[1]SPP coincident summer peak equals the highest demand including transmission losses for energy measured over a one clock hour period.