2017 ITP 10-Year Assessment (ITP10) Final Powerflow Models

The final 2017 ITP10 2020 summer and light load powerflow models have been posted for stakeholder approval. These models have incorporated coincident peak loads using PROMOD for SPP and First-Tier regions. The dispatch for each reliability hour for Futures 1, 2 and 3 has been incorporated into the 2017 ITP10 Futures 1, 2 and 3 models, respectively.

Staff has reviewed the draft models and incorporated its own feedback as well as feedback from stakeholders who submitted corrections. This set of models will be used by staff to complete the staging process for the Portfolios identified for the 2017 ITP10. The Transmission Working Group will have 3 days to review their changes to the models were applied accurately before approving these models by email vote on Friday, October 14, 2016.

Issues addressed:
- Member feedback on the reactive resources and reactive device settings
- Corrected rooftop solar modeling
- Corrected pump storage hydro modeling
- Corrected erroneous P/Q Min/Max values on generators inside/outside of SPP
- Turned off generators incorrectly acting as synchronous condensers in XEL (600) and Manitoba Hydro (667)
- Explicit DC tie modeling for reactive requirements
- Internal and External resource plan voltage schedule fixes (set to 1.02 p.u.)

The powerflow models that will be utilized for the staging process in 2017 ITP10 are as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Data Utilized in 2017 ITP10 (Separate model set for each future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future 1 2020 Summer Peak</td>
<td>2020 Topology with Future 1 Resource Plan, Dispatched using PROMOD Summer Ratings</td>
</tr>
<tr>
<td>Future 1 2020 Off-Peak</td>
<td>2020 Topology with Future 1 Resource Plan, Dispatched using PROMOD Winter Ratings</td>
</tr>
<tr>
<td>Future 2 2020 Summer Peak</td>
<td>2020 Topology with Future 2 Resource Plan, Dispatched using PROMOD Summer Ratings</td>
</tr>
<tr>
<td>Future 2 2020 Off-Peak</td>
<td>2020 Topology with Future 2 Resource Plan, Dispatched using PROMOD Winter Ratings</td>
</tr>
<tr>
<td>Future 3 2020 Summer Peak</td>
<td>2020 Topology with Future 3 Resource Plan, Dispatched using PROMOD Summer Ratings</td>
</tr>
<tr>
<td>Future 3 2020 Off-Peak</td>
<td>2020 Topology with Future 3 Resource Plan, Dispatched using PROMOD Winter Ratings</td>
</tr>
</tbody>
</table>
2017 ITP10 2020 models are posted on TrueShare under:

Information for obtaining the 2017 ITP10 models
In order to obtain access to these documents in TrueShare, 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 TrueShare Access” Quick Pick. After the executed confidentiality agreement is received, an account will be created for the requester on TrueShare. An email with instructions for logging on will be sent to requester. For those that already have a TrueShare account, no additional action is necessary.

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

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.
  - Choose Quick Pick “Integrated Transmission Planning (ITP)”
    - Choose Request Type “ITP Submittals”
      - Choose one of the following from the Subtype 1 field:
        - Project Inquiry
        - Modeling Inquiry
        - DPP Submittal
      - “Request TrueShare Access” Quick Pick for access to TrueShare for models
- SPP RMS is the preferred method for receiving all inquiries and solution submittals.