

## 2021 ITP Market Powerflow Models (MPM) – Pass 1a Information

- **Action Required**

SPP has posted [Pass 1a](#) of the 2021 ITP MPMs to [GlobalScape](#) for stakeholder review.

SPP has been notified about abnormal Power Factors in Light Load models. SPP researched and fixed the issues with the Power Factors. With this correction, SPP will restart the Pass 1 member review.

As a reminder, the following models will be utilized in the 2021 ITP:

- 2023 Future 1 Market Powerflow On-Peak and Off-Peak models
- 2026 Future 1 and Future 2 Market Powerflow On-Peak and Off-Peak models
- 2031 Future 1 and Future 2 Market Powerflow On-Peak and Off-Peak models

The summer On-Peak ITP Base Reliability (BR) models for each study year were utilized as the starting models for the development of the MPMs. The PROMOD dispatch, load, phase-shifter angle, and DC tie setpoints for each On-Peak and Off-Peak hour were applied to these models.

The Off-Peak MPMs were updated with device control profiles from corresponding BR light load seasons. These models should be reviewed for reactive setting adjustment submittals to SPP per ITP Manual, Section 2.3.2. Staff is requesting that stakeholders review and submit any changes to set points for:

- Capacitors
- Reactors
- Tap changers for transformers
- Remotely regulated buses
- Voltage schedules for generators and static VAR compensators (SVCs)
- DC tie and line parameters (other than MW SETVAL)
- Off-Peak (light load) power factors (QLOAD)

These adjustments will improve the response of the transmission system under system intact and contingency conditions, as well as provide confidence to SPP and stakeholders that potential violations are based on realistic system conditions. (Note the MPM Models will not be used for the 2021 ITP reliability needs assessment.) After all additional reactive device setting adjustments have been received, staff will apply the final adjustments to the appropriate models before final posting for TWG approval.

SPP Staff will continue model review and will potentially make updates during the review period.

Docucheck and additional internal QA results will continue to be evaluated for potential model updates including activities to help facilitate appropriate reactive setting adjustments.

- **Entities Required to Provide Feedback**

All interested stakeholders, TWG members

- **Due Date and Method of Submittal**

Please provide feedback by **Tuesday, May 4, 2021** via the [SPP Request Management System \(RMS\)](#), using Request Type “ITP Submittals” and Subtype 1 “Data Submission.” Staff will incorporate feedback and repost for review on May 25, 2021. SPP will solicit a vote for approval through email.

- **Changes from Last Pass**  
Power Factor adjustment for Light Load models only
- **Material Disclaimer**  
CONTAINS CONFIDENTIAL AND PROTECTED MATERIAL NOT AVAILABLE TO COMPETITIVE DUTY PERSONNEL – DO NOT RELEASE
- **File location on [GlobalScape](#)**

*For users who have signed an SPP non-competitive duty NDA:*

These files can be found on GlobalScape under: ITP → ITP → NCD (CEII, RSD) → NDA → 2021 ITP → 2021 ITP Market Powerflow Models → in the “[2021 ITP MPM – Pass 1](#)” folder.

File Name	Description
2021 ITP MPM-Pass 1a Raw V34.zip	Models in .RAW file format
2021 ITP MPM-Pass 1a Sav V34.zip	Models in .SAV file format
2021 ITP MPM-Pass 1a Docucheck.xlsx	SPP Docucheck
2021 ITP MPM Compare 1-1a.zip	Workbooks comparing previous and current models

- **Updated Schedule for MPM feedback**

<b>MPM Build - Pass 1 - POSTING - TRANSMITTAL NEEDED: Post initial MPM and Request reactive system adjustments from stakeholders for light load models</b>	1 day	Mon 4/26/21	Mon 4/26/21
MPM Build - Pass 1 - Stakeholders review and submit reactive system adjustments	5 days	Tues 4/27/21	Mon 5/3/21
<b>MPM Build - Final Pass - with Approved MEM/Constraint Assessment &amp; Reactive Settings adjustments</b>	<b>22 days</b>	<b>Tue 5/4/21</b>	<b>Wed 6/2/21</b>
MPM Build - Final Pass - Create input files from PROMOD (No Loss and Full Loss Run)	3 days	Tues 5/4/21	Thur 5/6/21
MPM Build - Final Pass - Apply stakeholder updates	1 day	Fri 5/7/21	Fri 5/7/21
MPM Build - Final Pass - Build model	5 days	Mon 5/10/21	Fri 5/14/21
MPM Build - Final Pass - QA models	3 days	Mon 5/17/21	Wed 5/19/21
<b>MPM Build - Final Pass - Post MPM with reactive system adjustments and other model updates</b>	<b>2 days</b>	<b>Thu 5/20/21</b>	<b>Fri 5/21/21</b>
MPM Build - TWG Stakeholder Review	5 days	Mon 5/24/21	Fri 5/28/21
<b>MPM Build - TWG Final Approval (Email vote)</b>	<b>3 days</b>	<b>Mon 5/31/21</b>	<b>Wed 6/2/2021</b>



- **Helpful Links and Access**

If you do not already have access to these documents in [GlobalScape](#), see the instructions for [confidentiality agreements](#) and submit the appropriate form via [RMS](#) using the “GlobalScape Access Request” Quick Pick. Other helpful links can be found on [SPP.org](#).