

2025 ITP Market Economic Model (MEM) - Pass 2

- **Action Required**

SPP staff is requesting feedback on the *application* of the following economic model data in the posted scenario(s):

- 2024 ITP Final Portfolio expected NTC projects (pending and subject to change)
- 2025 ITP Internal and External Load Data Reviews
- 2025 ITP Internal and External Generator Data Reviews
- 2025 ITP Scope Futures Assumptions
- 2025 ITP Internal and External Resource and Siting Plans
- 2025 ITP Generator Outlet Facilities (GOFs)

The posted runs are constrained with the SPP Book of Flowgates constraints. Please note that the Book of Flowgates includes SPP's 2023 top 10 flowgates (temporary and permanent) and the persistent operational needs according to 2025 ITP study scope, Section 4.

SPP is *not* requesting changes to the above economic model input data. Any changes submitted regarding the data above will be considered under Section 10.3 of the ITP Manual.

SPP plans to solicit a vote to approve the 2025 ITP MEM for use in the constraint assessment the week of October 7th.

- **Entities Required to Provide Feedback**

All interested stakeholders; primarily, ESWG members

- **Due Date and Method of Submittal**

Please provide feedback on the incorporation of the data items listed above into the MEM **by Friday, September 27, 2024** via the [SPP Request Management System \(RMS\)](#), using the "Submit Information" **Request Template**, "Integrated Transmission Planning (ITP)" **Subtype 1**, and "Data Submission" **Subtype 2**.

- **Notes**

- Modeling Updates
 - Added model corrections for 2024 ITP MEM rebaseline
 - Created Years 5 and 10 models
 - Included the following 10.3 requests:
 - OKGE-Load changes for two buses
 - KEPC- 15 MW load increase in year 10 summer. Add 1 new load to existing bus
 - NPPD – 417 MW added in year 10 summer
 - Eversgy – all seasons and all loads revised. Minimal total load increase or decrease but holistic changes have been made to Eversgy loads
 - SPS- 2926 MW increase in summer year 10. Line/transformer additions and removals. Impedance, rating, bus load allocation, and capacitor bank/reactor changes

- Peoples Electric Impact- 37 MW increase in summer year 10. Line/transformer additions and removals. Bus load allocation changes
- Basin-250 MW internal and 225 MW external load increase in summer year 10. Nine AQ study updates and load addition for MDU Ellendale Data center(external).
- Incorporated data items listed above under Action Required section above.
- Updated to latest PROMOD engine I per Hitachi recommendation.
- Included the following settings related to energy storage modeling:
 - Refill Capacity (charging time) calculated as (max * 4 hour)/cycle efficiency
 - Hour of week full reservoir set to -1
 - Percent full at study start has a small value
 - Type of Refill Cycle set to Daily (D)
 - Efficiency set to 86%

• **Material Disclaimer**

CONTAINS CONFIDENTIAL AND PROTECTED MATERIAL NOT AVAILABLE TO COMPETITIVE DUTY PERSONNEL – DO NOT RELEASE

• **File location on GlobalScape**

In order to obtain access to SPP’s current PROMOD version, please email pb_support.pges@hitachi-powergrids.com and request PROMOD V engine i. SPP ran simulations using PROMOD IV 11.5 software.

For users who have signed an NCD NDA, HITACHI NDA, MISO-SPP Joint NDA, and license Hitachi PROMOD nodal simulation ready software:

These files can be found on GlobalScape under: *ITP → ITP → NCD (CEII, RSD) → License_NDA_JointSPPMISO → 2025 ITP → 2025_ITP_MEM_Pass_2.zip*

File Name	Description
2025_ITP_MEM_Detail_Document_Pass_2.docx	Posted Material Overview
2025_ITP_MEM_Scenarios_Pass_2	Published PROMOD Scenarios
2025_ITP_MEM_Run_Files_Pass_2	PROMOD Run Files
2025_ITP_MEM_Database_Extracted_Pass_2	PROMOD Scenarios in Excel
2025_ITP_MEM_Outputs_Pass_2	Output Reports

For users who have signed a NCD NDA, HITACHI NDA, and MISO-SPP Joint NDA:

These files can be found on GlobalScape under: *ITP → ITP → NCD (CEII, RSD) → HITACHI_NDA_JointSPPMISO → 2025 ITP → 2025_ITP_MEM_Pass_2.zip*

File Name	Description
2025_ITP_MEM_Detail_Document_Pass_2.docx	Posted Material Overview
2025_ITP_MEM_Database_Extracted_Pass_2	PROMOD Scenarios in Excel
2025_ITP_MEM_Outputs_Pass_2	Output Reports

For users who have signed NCD NDA:

These files can be found on GlobalScape under: *ITP → ITP → NCD (CEII, RSD) → NDA → 2025 ITP → 2025_ITP_MEM_Input_Powerflows_Pass_2.zip*

File Name	Description
2025_ITP_MEM_Input_Powerflows_Pass_2	Input Powerflows for MEM

- **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 "Initiate a System Access Action" **Request Template**, "Access" **Request Type**, and "Globalscape File Sharing" **SubType 1** "Add User" **SubType 2** "SPPDocushare / Engineering / TCR Models" **SubType 3**. [GlobalScape](#) frequently asked questions can be found in [Knowledgebase Article 686](#). Other helpful links can be found on [SPP.org](#).