Hosting Capacity Tool - FAQ

Hosting Capacity Tool

The SPP Hosting Capacity Tool was developed from requirements under SCRIPT which was to reimagine SPP's transmission planning process. The Consolidated Planning Process (CPP) will bring the Integrated Transmission Planning (ITP) and Generator Interconnection (GI) studies together into one process. Through SCRIPT and CPP, there is a need for new tools to assist customers. The goal of the Hosting Capacity Tool is to provide data on capacity of the existing transmission system to host new interconnection. The tool should assist in planning for new interconnection requests.

Additionally, in FERC's Order 2023, the Commission required Transmission Providers to publicly post available information pertaining to generator interconnection in the form of a heatmap. The Hosting Capacity Tool meets the Commission's requirements:

> Transmission Providers are required to update the heatmap within thirty (30) calendar days after the completion of each cluster study and cluster restudy. The heatmaps must be calculated under N-1 conditions and studied based on the power flow model of the transmission system with the transfer simulated from each Point of Interconnection to the whole Transmission Provider's footprint (to approximate NRIS), and with the incremental capacity at each Point of Interconnection decremented by the existing and queued generation at that location. Transmission Providers must also provide the following information as outputs at each Point of Interconnection: (1) the distribution factor; (2) the MW impact; (3) the percentage impact on each impacted transmission facility; (4) the percentage of power flow on each impacted transmission facility before the proposed project; and (5) the percentage power flow on each impacted transmission facility after the injection of the proposed project.

QUESTION	ANSWER
Where is the test environment?	Access to the Test Environment: pst.itesppmembers.org .
Where is the production environment?	Access to the Production Environment: https://pst.spp.org/
What do the colors represent?	The colors represent the % loading on a monitored facility. It is calculated from the nearest 12 data points (monitored facilities) to any given point on the map.
How is capacity determined?	Available Capacity on Monitored Facility for Contingent Facility = 100% loading minus from pre-shift loading % times applicable rating of facility
Is there a way to populate the location of the substations from the drop down?	At this time, no. This will be logged as a future enhancement.
Can the transmission lines be shown on the map?	Due to CEII data restrictions, transmission lines cannot be shown.
Is there a glossary to translate the characteristics of the monitored elements (e.g. voltage, equipment type, length of line, etc.)?	The models that are posted along with each DISIS study would have that information. You will need a current DISIS request and a signed NDA for access to the study models on GlobalScape. Alternatively, you can order individual models through RMS.
Will the tool change the dispatch of the prior queue generators under the exception rule in the DISIS manual (AKA PQE)?	The tool decrements for all generation at the same POI. This is in line with the requirements for SPP's FERC Order 2023 compliance filing under ER24-2026-000.

Will the TC models used for the tool be the ones posted at the start of the study cycle or will they be the cases posted along with the results (S0, S1, S2, S3) which have varying levels of current queue upgrades?	The TC models without upgrades will be used.
Is any bus selected in the tool is in the SPP system? As in, if I find the bus in the map, then I can say that it is a POI to submit a DISIS application?	Every 69 kV bus or greater for SPP modeling areas in the posted models is available in the prescreening tool.
Are candidate contingent facilities shown based on the screening results?	No, contingent upgrades are not part of the initial phase of the pre-screening tool. We will log as a future enhancement. Previously identified contingent upgrades are listed.