

Application of the Transmission Constraint Penalty Factor

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Stakeholder Feedback

- Hill Energy default lesson learned:
 - Additional flexibility needed for Transmission Constraint Penalty Factor (TCPF) adjustments
- PJM indicated in the January 31, 2022 206 (EL22-26-000) filing the intent to engage Stakeholders at the EPFSTF
- PJM would like to discuss broadening OATT provisions to allow more flexibility for lowering TCPF with Stakeholders:
 - Initial discussion at the EPFSTF
 - Edits to the OATT to be reviewed at the MRC/MC



Purpose of TCPF

The underlying goal and intent of reflecting the TCPF in LMPs:

- provide market signals that incentivize supply and/or load response to help mitigate the constraint in the short-term
- incentivize the development of additional supply, load response and/or transmission through long-term investments
- Default value set to \$2,000/MWh



Modifications to TCPF

Currently, PJM has limited capability to modify the TCPF:

- Ensure market clearing solution is feasible
- Reflect changes to market-to-market coordinated constraints
- Reflect persistent system operational or reliability needs and the cost of the resources available to effectively relieve congestion on the constraint





- The TCPF can be lowered from the default value under the following condition:
 - Sufficient congestion relief on the constraint can be provided by available resources at a cost below the default Transmission Constraint Penalty Factor in order to prevent a high cost resource that cannot provide material congestion relief on the constraint from inappropriately setting price for the constraint
- Additional flexibility needed to lower the TCPF at appropriate times



Northern Neck Situation

- Hill default brought to light issue in which a \$2,000/MWh was being sent without any possibility of action:
 - Limited generation options available to control localized congestion
 - Congestion is localized and feeding mostly residential load
 - Congestion results from a transmission outage needed to support a transmission upgrade
 - Allowing the constraint to bind to the penalty factor does not result in meaningful and actionable market signals



- Develop additional conditions that provide the flexibility to lower the TCPF at EPFSTF
 - Any changes should not negatively impact the original intent of TCPF
- Develop corresponding OATT language updates and review with Stakeholders at the MRC and MC
 - Seek approval for OATT language changes
- File updated OATT language with the FERC for review and approval





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