

Transmission Constraint Penalty Factors

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- Problem Statement:
 - Current PJM practice is use constraint relaxation whereby transmission constraint penalty factors do not directly set the constraint shadow price for a violated transmission constraint
 - Resulting clearing prices are inefficient and do not accurately reflect market conditions
 - Transmission constraint penalty factors and the process used by PJM in applying transmission constraint penalty factors are not included in the PJM Tariff or Manuals.

- To Date:
 - PJM & MA jointly presented education on use of Transmission Constraint Penalty Factors and analysis of potential impact of removing constraint relaxation process
 - PJM & MA jointly propose a single package
 - No other options or packages were submitted

- Remove transmission constraint relaxation and allow the transmission constraint penalty factor to set the shadow price of a violated transmission constraint in the market clearing software
- Provide transparency into changes in the penalty factor

Component	Modification	Reasoning
Magnitude of transmission penalty factors	Status Quo	Operational experience indicates most constraints can be effectively controlled at a cost below \$2,000/MWh
Ability for transmission penalty factors to set transmission constraint shadow prices.	Allow penalty factors to set price. Remove constraint relaxation process*.	Produce congestion prices that accurately reflect the severity of the localized transmission shortage

*M2M Constraints may be delayed to accommodate coordination of reciprocal updates to MISO/NYISO systems

Component	Modification	Reasoning
Exception Process	<p>Retain ability to increase/decrease penalty factors when the \$2000 penalty factor is no longer sufficient to capture all controlling actions.</p> <p>Memorialize and publish guidelines to identify when the default penalty factor should be modified.</p>	<p>Maintain ability to reflect system operational needs and the cost of the resources available to effectively relieve congestion on the constraint.</p>
Transparency when dispatch needs to adjust Penalty Factor	<p>Update Penalty Factor (Real-Time Marginal Value Limit) posting on Data Miner 2 to include transmission penalty factor</p>	<p>Provide transparency</p>

	1 st Read	Endorsement
MIC	August 8	September 12
MRC/MC	September 27	October 25

- Manual language has been developed
 - New section 2.17 added to M11
 - Documents the default Transmission Constraint Penalty Factors and the process when the Penalty Factor may be adjusted
- Tariff language is under development and will be presented at the MRC/MC
 - Memorializes the default Transmission Constraint Penalty Factors and the process when the Penalty Factor may be adjusted
 - Will comply with Order 844 requirements for transparency into Transmission Constraint Penalty Factors