

PJM Congestion Management

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Market Issues Working Group

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Overview

- ◆ Request relief from the neighboring control area through re-dispatching of generators at a lower cost when compared to the re-dispatching of generators within the monitoring control area.

Inputs

- ◆ Identify Reciprocal Coordinated Flow gates (RCFs)
 - *Set of transmission flow gates in each market that can be significantly impacted by the economic dispatch of generation serving load in the adjacent market.*
 - *The RCFs are limited to those for which at least one generator in the adjacent market has a significant shift factor.*

Inputs (cont.)

- ◆ The integrated ex-ante shadow price along with the MW relief amount will serve as the demand curve for the flow gate that needs to be solved.
 - *The shadow price serves as a price cap under which relief on the constrained flow gate will no longer be re-dispatched for by the Non-Monitoring RTO.*

Process

- ◆ Monitoring RTO – Flow gate in control area.
- ◆ Non-Monitoring RTO – Flow gate outside of control area which is impacted by a generator in its CA.
- ◆ Any time a candidate flow gate is constrained, the Monitoring RTO notifies the Non-Monitoring RTO.
- ◆ A notification is sent out to the Non-Monitoring RTO identifying the flow gate, MW of relief requested, and maximum shadow price for relief on the identified flow gate.

Process (cont.)

- ◆ The Non-Monitoring RTO will re-dispatch its generation in an attempt to reduce the MW transfer on the identified flow gate up to the maximum shadow price.
- ◆ If the Non-Monitoring RTO re-dispatches and meets the requested relief on the identified flow gate without reaching shadow price limit, then the Monitoring RTO will be provided the full relief on the flow gate.
- ◆ If the Non-Monitoring RTO re-dispatches and reaches the shadow price limit before meeting the requested relief, then the Monitoring RTO will be provided a reduced amount of relief, or zero.

Settlements

- ◆ The Monitoring RTO that requests relief on a flow gate will be charged for the amount of relief delivered by the Non-Monitoring RTO.
- ◆ Payment: ex-ante shadow price * ex-post relief
 - *Currently proposed.*
 - *Dynamic entitlements are important.*
 - *Settlement distribution has not been finalized.*

Work to Date

- ◆ Data Sharing: Initial list of flow gates and time periods for comparison.
 - *Currently done manually*
 - *Change to automated process*
- ◆ Current Flow Gate selection is:
 - Warren-Falconer 115 kV line
 - Erie East-South Ripley 230 kV line
 - East Towanda-Hillside 230 kV line
 - East Sayre-North Waverly 115 kV line
 - Tiffany-Goudey 115 kV line
 - Homer City-Stolle Road 345 kV line
 - Homer City-Watercure Road 345 kV line
 - South Ripley Dunkirk 230 kV line
 - Oakdale Watercure 230/345KV xfmr

Concerns

- ◆ **Market flow calculator**
 - ***NY – manual process of historical data (no current access to real time flow data).***
 - ***PJM – automatic process of real time data (no current access to historical flow data).***
 - ***PJM would like to compare 6 months of data.***
 - ***NYISO requires software implementation in order to support the real-time market flow comparisons.***

Concerns (cont.)

◆ Entitlements

- ***NYISO would like to use dynamic entitlements.***
- ***PJM would like to use fix entitlements (based on historical data).***
 - **Now considering bandwidth proposal. Comparison of market flow data will be instrumental to this determination.**

Next Steps

- ◆ Share market flow values.
- ◆ Continue discussions on concerns.
- ◆ Bring updates to future MIWGs.
- ◆ As appropriate develop budget for 2010 Project Prioritization.



The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York's bulk electricity grid, administers the state's wholesale electricity markets, and provides comprehensive reliability planning for the state's bulk electricity system.

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