

# Less than 20 MW Constraint Reliability Margin Values

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# Background

- NYISO's tariff currently requires use of a minimum value of at least 20 MW for any non-zero constraint reliability margin (CRM) value employed in the Day-Ahead and real-time markets (see Section 17.1.4 of Attachment B of the MST).
- As NYISO continues to consider inclusion of certain 115 kV facilities with lower thermal ratings (relative to 230 kV and higher facilities) into its dispatch, a 20 MW CRM can often represent a significant percentage of the facility limits.
  - For instance, many of the 115 kV facilities under consideration for inclusion in the dispatch have post contingency limits of 150 MW or lower. A 20 MW CRM represents 13% of the rating for a 150 MW facility.
    - In MW terms, a facility with a 150 MW post contingency rating and a 20 MW CRM would be secured in the dispatch using a 130 MW limit.
  - By comparison, a typical 345kV circuit has a 1550 MW post contingency rating with a 20 MW CRM representing only ~1% of the rating.
- The NYISO is pursuing a separate project with stakeholders to develop constraint-specific transmission shortage pricing, which may also include associated changes to CRM rules. The implementation timeline of constraint-specific shortage pricing will be dependent on the prioritization and scheduling of that project.
- Until enhancements related to the constraint-specific transmission shortage pricing project can be put in place, NYISO is seeking to revise the tariff to permit use of non-zero CRM values less than 20 MW, where warranted.

# Proposal

- **NYISO would apply a sub-20 MW CRM value to certain facilities where warranted. The methodology to determine if a sub-20 MW CRM is warranted would be heavily based on the desire to generally keep CRM values at a level representing no more than 10% of a facility's rating.**
  - Another factor considered in determining appropriate CRM values is the degree of expected modeling uncertainty surrounding flows across the facility and the need to account for such uncertainty in operating the facility within reliability criteria.
- **The ability to apply a CRM value less than 20 MW will facilitate the continued pricing of smaller 115 kV facility constraints.**
- **NYISO will continue its practice of posting to its website any facility with a CRM that is not equal to 20 MW, including any that are assigned a value less than 20 MW.**
- **NYISO will continue to apply the graduated Transmission Shortage Cost pricing logic to facilities with non-zero CRM values of less than 20 MW.**
  - This pricing logic applies to all facilities with a non-zero CRM value and includes a two-step demand curve of up to 20 MW<sup>1</sup>
  - The same 20 MW two-step demand curve will be applied to all facilities with non-zero CRM values until enhancements related to the constraint-specific transmission shortage pricing project can be put in place

<sup>1</sup> Two-step demand curve: 5 MW at \$350, 15 MW at \$1,175

# Proposed Tariff Revisions

- **The NYISO proposes the following minor revisions within the first paragraph of Section 17.1.4 of Attachment B of the MST**

*The applicable Transmission Shortage Cost depends on whether a particular transmission Constraint is associated with a transmission facility or Interface that includes a non-zero constraint reliability margin value. The ISO shall establish constraint reliability margin values for transmission facilities and Interfaces. Non-zero constraint reliability margin values established by the ISO ~~are normally shall be~~ equal to ~~or greater than~~ 20 MW.*

# Next steps

- **June/July BIC and MC meetings**
  - Seek stakeholder approval to permit use of non-zero CRM values less than 20 MW

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- Provide benefit to stakeholders by
  - Maintaining and enhancing regional reliability
  - Operating open, fair and competitive wholesale electricity markets
  - Planning the power system for the future
  - Providing factual information to policy makers, stakeholders and investors in the power system



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