



Proposed updates to the Transmission Security Limit method for the 2022-2023 Capability Year LCR determinations

Joshua Boles
Senior Manager
Market Operations

ICAP WG / ESPWG
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Agenda

- Purpose and Background
- Discussion and Proposal
- Next Steps

Purpose

Transmission Security Assessments

- As part of the stakeholder review of the Transmission Security Limit (TSL) and TSL Floor implementation, stakeholders have observed that different treatments of supplier availability are applied in the Capacity Market procurement process compared to the Reliability Planning Process, and some stakeholders have recommended the consideration of supplier [un]availability should be removed from the floor calculation.
- The NYISO has considered the feedback and reviewed the transmission security assessments in the Reliability Planning Process and Capacity Market procurement process.
- The presentation provides background and the proposed TSL calculation method for the 2022-2023 LCR setting process.

Background

6/30 ICAPWG presentation

■ NYISO discussed

- Issue background, a high-level overview of current practices, and next steps.
- Identified areas of differences between Planning and Market practices.
- A proposal to explore the treatment of the 901/903 PAR controlled ConEd-LIPA lines.

Proposal and Discussion

2022-2023 Capability Year TSL method: proposal

- **NYISO supports enhancing the TSL method to improve alignment between Planning and Market models**
 - In the near-term, NYISO recommends that the LCR optimization process uses the Planning TSA assumption related to generation unavailability to determine Transmission Security Limits.
 - The Planning TSA assumption reflects that all fossil generation will be available under peak demand conditions which is different than the historical Market treatment that considered historic generation unavailability.
 - NYISO continues to support an assessment of transmission security best practices to best reflect generation unavailability for future Planning and Market models (see later slides)
 - At this time, NYISO does not recommend changes to the 901/903 modeling. Currently, both Planning and Market transmission security models maintain a scheduled power flow into Con Edison consistent with normal transfer conditions.
- **The next slide shows an example calculation using the proposed TSL method**

2022-2023 Capability Year TSL proposed method: example

Transmission Security Limit	Formula	NYC	Long Island	Description
Load Forecast (MW)	[A] = Given	11217	5286	Load forecast used in 2021 TSL determination. The proposed TSL method enhancements do not affect this parameter.
Transmission Security Limit (MW)	[B] = Studied	2920	270	Bulk power transmission capability into the Locality consistent with reliability rules, less generation source contingencies (NYC: Ravenswood 3. LI: Neptune).
Resource Unavailability (MW)	[C] = Given	407	37	Special Case Resources, July 2021 enrollments per NYSRC IRM Study. SCRs do not contribute to transmission security under normal transfer criteria.
ICAP Requirement (MW)	[D] = [A]-[B]+[C]	8,704	5,053	
ICAP Requirement Floor (%)	[E] = ROUND([D]/[A],1)	77.6%	95.6%	

Rows [B], and [C], are expected to approximate the final values the 2022-2023 TSL calculation. Row [B] values are based upon the most recent CRP results.

2022-2023 Capability Year TSL method: next steps

- **NYISO will return to an ICAPWG in September with draft inputs for all Localities.**
 - The previous example showed only NYC and Long Island and used the 2021-2022 Capability Year peak Load and approximate values for the other inputs.
- **As in previous years, a TSL report with final inputs will be posted on the NYISO's website.**
- **NYISO will update the “Locational Minimum Installed Capacity Requirements Determination Process” procedure consistent with this proposal**
 - Section 2.3.4 describes the TSL setting process
 - <https://www.nyiso.com/documents/20142/21537892/LCR-determination-process-2021.pdf/1bac4189-7bc1-5aa5-a00d-4f178074b5e8>

Further next steps:

Assessment of Transmission Security Analysis Best Practices

- **NYISO appreciates the interest in the topic and the research into the practices that have occurred as a result.**
- **NYISO has identified two areas of focus:**
 - Lack of alignment between the Planning and Market practices.
 - Different treatment in the assumed generation unavailability, and modeled resource mix and contingencies may result in inconsistent identification of desired resources.
 - NYISO's proposal to align Planning and Market practices for the 2022-2023 Capability Year LCR setting process will largely bring these processes into alignment in the short term.
 - Planning will continue to provide additional scenarios, including for emergency transfer criteria and alternate load levels that will not be incorporated into the LCR setting process
 - In the future, assumptions related to generator unavailability will need to be developed to maintain reliability as the fleet transitions to intermittent and duration limited energy resources.
 - Historical reliability needs have been driven by summer afternoon high temperature peak loads and have been met by dispatchable fossil resources with non-coincident failure modes.
 - Assumptions need to be developed for the appropriate treatment of all supply resources, including future off-shore wind and duration limited resources in Transmission Security Analysis.

Questions?

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

