New York ISO
Independent System Operator

Parametric Improvements - Final Recommendations

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Background

- **The parametric process evaluates the direction and magnitude of impacts from modeling and assumption changes during the development of the installed reserve margin (IRM) study base case, and is intended to serve as an early indication of expected Tan45 outcomes.**
  - In last year's IRM study, material divergence (2.2%) between parametric and Tan45 outcomes was observed, motivating a deeper review of the parametric process.
  - At the 2/4/2026 ICS meeting, three updates were identified as key drivers of divergence between Tan45 and parametric outcomes (i.e., load forecast updates, generation updates, and transmission updates). This effort has focused on assessing potential improvements to reduce such divergence for these three update categories
- **Two potential improvements to the parametric process to address load forecast and generation updates were reviewed at the 3/4/2026 ICS meeting. At the 3/31/2026 ICS meeting the NYISO provided its initial recommendations to: (1) adopt the "upstate/downstate parametric split" (Parametric Split) methodology for assessing load forecast updates, and (2) maintain the current methodology for assessing transmission updates.**
  - At the 3/31/2026 ICS meeting, the NYISO noted the need for further assessment prior to providing a recommendation with respect to parametric assessments of generation updates
- **This presentation outlines the NYISO's recommendations for ICS review.**

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Load Forecast Recommendation

- **Based on the observed potential for substantial reduction in divergence between parametric and Tan45 results when using the Parametric Split methodology for load forecast updates, the NYISO recommends adopting this enhancement for load forecast updates starting with this year's IRM study.**
  - This remains consistent with the NYISO's initial recommendation discussed at the 3/31/2026 ICS meeting
- **Using this methodology, the parametric assessment of load forecast updates will be split into two updates.**
  - Using the Parametric Split approach, the load forecast update is split into Upstate (Load Zones A-F) and Downstate (Load Zones G-K) components which are solved sequentially.
  - First the load forecast is updated for only Load Zones A-F and the system is then brought back to the 0.1 loss of load expectation (LOLE) criteria by running a parametric case with capacity adjustments limited to Load Zones A-F.
  - The remaining load forecast update is then applied to Load Zones G-K and the system is then brought back to 0.1 LOLE by running a parametric case with capacity adjustments limited to Load Zones G-K.
- **The impacts for the two steps will ultimately be combined and published as a single line item in the parametric process.**

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Generation Recommendation

- **The parametric process allows capacity adjustments to be applied at the full system level (Load Zones A–K) or regionally to Upstate (Load Zones A–F) or Downstate (Load Zones G–K).**
  - The current parametric process applies capacity adjustments to the full system unless the updated assumptions affect only one region (Upstate or Downstate), in which case the corresponding regional capacity adjustment is applied.
- **Generation additions and removals have typically been assessed using the appropriate regional capacity adjustment when such updates are isolated to one region.**
  - The NYISO recommends maintaining this approach to assessing generation additions and removals
- **The NYISO further assessed whether the Parametric Split methodology may be appropriate for DMNC and Transition Rate updates. After consideration, at this time, the NYISO also recommends maintaining the current methodology for assessing DMNC and Transition Rate updates.**
  - As reviewed at the 3/31/2026 ICS meeting, testing of "perfect capacity" additions in Load Zones D and J did not consistently identify the potential for reducing divergence between parametric and Tan45 results using the Parametric Split methodology
  - Further review of the testing results indicated that the Tan45 behavior is highly dependent on the "low point" of the Tan45 curves

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Transmission Recommendation

- **Consistent with its initial recommendation discussed at the 3/31/2026 ICS meeting, the NYISO recommends maintaining the current parametric methodology for assessing transmission updates.**
  - Major topology changes impact how capacity can be balanced across the system, which the parametric methodology is unable to reflect.
  - In limited cases where a material transmission update warrants additional evaluation, a separate Tan45 assessment could be used to quantify associated impacts.
  - Such additional Tan45 assessments are performed independently and in parallel with the Preliminary Base Case or Final Base Case runs.

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Next Steps

- Seek ICS approval on the NYISO's recommendations.
- If approved, incorporate the use of the Parametric Split methodology for load forecast updates as part of the 2027-2028 IRM study.

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Questions?

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