New York ISO
Independent System Operator

Balancing Intermittency: 2024 Project Kick-Off

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Agenda

- **Background**
  - Previous project presentations
  - 2023 Market Design Concept Proposal Summary
- **2024 Project Objectives**
  - Phase 1: Uncertainty Reserves on existing 10- and 30-minute reserves products
  - Phase 2: New 60-minute, 4-hour reserves product
- **Next Steps**

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Background

Previous Presentations

Date	Working Group	Discussion Points and Links to Materials
11-10-2023	ICAPWG/MIWG	Market Design Concept Proposed: https://www.nyiso.com/documents/20142/41130653/Balancing%20Intermittency_MDCP%20Presentation_final.pdf/ab912240-d021-0e7a-a02a-987a94928bf7
10-12-2023	ICAPWG/MIWG	1hr notification/4hr sustainability Reserves Product: https://www.nyiso.com/documents/20142/40342797/Balancing%20Intermittency_100323%20ICAPWG_MIWG_final.pdf/71269f5b-1e84-4bda-3219-b36a71a9be24
10-03-2023	ICAPWG/MIWG	Introductory Analysis regarding Uncertainty Reserve product : https://www.nyiso.com/documents/20142/40342797/Balancing%20Intermittency_100323%20ICAPWG_MIWG_final.pdf/71269f5b-1e84-4bda-3219-b36a71a9be24
09-18-2023	ICAPWG/MIWG	Analysis and proposal regarding Uncertainty Reserve requirement locational distribution: https://www.nyiso.com/documents/20142/40044890/3%20Balancing%20Intermittency_09182023%20ICAPWG_MIWG.pdf/0d0e82b7-1d3a-7af0-fef7-237dbf5c1b77
09-05-2023	ICAPWG/MIWG	Analysis and proposal regarding Uncertainty Reserve requirement calculation methodology: https://www.nyiso.com/documents/20142/39768278/6%20Balancing%20Intermittency_ICAPWG_MIWG_090523.pdf/23391d26-0559-5757-1289-d043e833e16c
07-19-2023	ICAPWG/MIWG	Initial analysis regarding the need to address net load uncertainty: https://www.nyiso.com/documents/20142/38852999/Balancing%20Intermittency%20Initial%20Analyses_ICAPWG_MIWG_071923_Final.pdf/c4adb509-3c09-0361-7f52-b52cae880997
04-17-2023	ICAPWG/MIWG	Kick-off for Regulation Requirements study (Stakeholder vote passed at May OC): https://www.nyiso.com/documents/20142/37014190/Proposed%20Regulation%20Requirements_20230406_SOAS_v1.pdf/a2d7d51a-5511-37c6-ad04-a177d69f5424
02-21-2023	ICAPWG/MIWG	Project Kickoff: https://www.nyiso.com/documents/20142/36339783/Balancing%20Intermittency_MIWG_022123_FINAL%20(002).pdf/5ff99fc1-1eb2-8bec-d385-b4983568802a

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2023 Market Design Concept Proposal Summary

- **Phase 1: Uncertainty Reserve Requirement on existing 10- and 30-minute reserve products**
  - The NYISO proposes to establish locational Uncertainty Reserve requirements using percentages calculated from historical data, which will be individually applied to net load, land-based wind, and offshore wind forecasts.
  - Targeting 2025 implementation
- **Phase 2: New 60-minute, 4-hour reserve product**
  - The features of the proposed new reserve product include a longer Notification Time and a longer Duration Availability Requirement, which aim to address needs driven by uncertainty that arise further in advance.
  - Currently targeting 2026 implementation

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2024 Project Objectives

Phase 1: 10- and 30-Minute Uncertainty Reserves

- **The NYISO proposes Uncertainty Reserve Requirements as incremental requirements on the 10-minute and 30-minute Reserve Notification Time products.**
- **2024 project action items for this phase include:**
  - Develop a methodology for selecting the historic error percentile for the uncertainty reserve requirement
  - Determine the shortage price step for uncertainty reserves
  - Evaluate how to distribute the uncertainty reserve requirement between the 10- and 30-minute reserve products
  - Perform and present the Consumer Impact Analysis for this phase
  - Develop Tariff revisions for review and approval

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Phase 2: New 60-minute, 4-hour Reserve Product

- **The NYISO proposes a new reserve product that will be incremental to, and upon implementation help fulfill, the NYISO's proposal to procure reserves to manage DAM net load forecast errors.**
- **2024 project action items for this phase include:**
  - Determine the uncertainty reserve requirement distribution between the new and current products
  - Establish whether this new product will cascade with existing reserve products
  - Develop integration with reserve market changes being proposed in Dynamic Reserves
  - Prototype to ensure proposed market design is implementable and is implementable when coupled with Dynamic Reserves
  - Assess settlement implications
  - Perform and present the Consumer Impact Analysis for this phase
  - Develop Tariff revisions for review and approval

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Next Steps

Next Steps

- **Return to ICAPWG/MIWG meetings throughout the year to continue discussions with stakeholders**
- **2024 Project Milestone: Market Design Complete**
  - Phase 1
    - Targeting Q2 2024 Market Design Complete
    - Proposed 2025 Implementation
  - Phase 2
    - Targeting Q4 2024 Market Design Complete
    - Proposed 2026 Implementation
      - It may be prudent to continue to evaluate best target implementation date for this component of the project based on the actual evolution of the resource mix.
        - This product will have particular value in a future grid characterized by more duration-limited resources.

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Our Mission & Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

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Questions?