New York ISO
Independent System Operator

FERC Order 904 Update

Amanda Myott
Senior Market Design Specialist

ICAPWG/MIWG
February 04, 2025

Previous Discussions

Date	Working Group	Discussion Points and Links to Materials
01-13-25	ICAPWG/MIWG	Order 904 Update: https://www.nyiso.com/documents/20142/49159126/VSS%20Presentation_011325%20MIWG.pdf/d97e7488-5cf7-df98-68ad-bff98bf1b932

Stakeholder Feedback Summary

- **Review of items from the 1/13/25 ICAPWG/MIWG discussion are provided today, including:**
  - Request for summary of former reactive power working group
  - Request for additional detail on proposed revisions to the VSS compensation structure
  - Request for definition of the “standard power factor range” and justification for compensation outside of this range
  - Request for discussion of implications for VSS-related penalties
  - Request for discussion of capacity market implications resulting from changes to the VSS program

New York ISO

Summary of Reactive Power Working Group

NYISO Reactive Power Working Group

- **Stakeholders requested that the NYISO provide a summary of discussions that occurred at the RPWG**
- **2005 RPWG scope statement summary:**
  - Improve reactive power forecasts
  - Identify potential voltage degradation problems by modeling scenarios that would result in reliability criteria violations, which would not be addressed by existing TO planning criteria
  - NYISO VSS program was already in place at this time

New York ISO

Compliance Proposal

Proposed VSS Program Structure

- **In compliance with FERC Order 904, the NYISO will discontinue compensation to VSS suppliers for reactive power capability within the standard power factor range.**
- **The NYISO proposes to continue compensation for suppliers that offer voltage support capabilities outside of the standard power factor range.**
  - Compensation will be based on demonstrated capability using the existing VSS testing and payment procedures.
  - The NYISO intends to leave the remainder of VSS rules in place for resources that opt into the compensation program for voltage support capability outside their standard power factor ranges.

New York ISO

Standard Power Factor Range Definition

- **The NYISO proposes to define the standard power factor range in alignment with the industry standard of 0.95 leading to 0.95 lagging.**
  - This range is consistent with FERC Order 904, pro forma interconnection agreements, and IEEE[1]

1. 2800-2022 - IEEE Standard for Interconnection and Interoperability of Inverter-Based Resources (IBRs) Interconnecting with Associated Transmission Electric Power Systems | IEEE Standard | IEEE Xplore

New York ISO

Proposal Justification

- **The NYISO believes it is critical to continue providing compensation to suppliers that offer voltage support outside of the standard power factor range for two key reasons:**
  - 1) This service is beyond the obligations within the standard power factor range.
  - 2) The ability to rely upon supplier responsiveness to system reactive power needs is essential to maintaining grid stability and reliability, and therefore warrants appropriate compensation.

New York ISO

VSS Capability Testing Proposal

- **Participation in the VSS program will be signaled by voluntary performance of capability testing and submission of required documentation, with testing and documentation requirements consistent with current VSS program requirements.**
  - Capability test once per year, consistent with current rules.
  - Operating data submission can still fulfill the testing requirement, consistent with current rules.

New York ISO

VSS Performance Penalty Proposal

- **Retain current performance penalty structure for participants in the VSS program.**
  - Performance failures within the standard power factor range among resources that do not elect to participate in the new VSS program will not be subject to financial penalties, but they may be reviewed under Market Services Tariff Section 30 for a potential Market Violation.

New York ISO

Capacity Market Integration

- **For the 2025-2029 ICAP Demand Curve reset (DCR) period, the NYISO proposed to identify an "adder" to account for estimated VSS revenues for each peaking plant technology.**
  - The value of such adder is determined formulaically based on the compensation structure described in Rate Schedule 2 of the Market Administration and Control Area Services Tariff.
  - For the 2025-2026 Capability Year, the value of the proposed VSS adder is based on the full MVAr capability of the applicable peaking plant technology, multiplied by the compensation rate that was in effect at the time of the 2025-2029 DCR filing (i.e., $3,307.31 per MVAr-year).
  - The NYISO's 2025-2029 DCR proposal expressly identified the need to address the implications of FERC Order 904 on the "VSS adder" used in determining the ICAP Demand Curves and committed to address such impacts as part of its compliance filing to implement the requirements of FERC Order 904.

New York ISO

Capacity Market Integration (cont'd)

- **Proposing an effective date of approximately 5/1/2026 to align with the 2026-2027 Capability Year.**
  - Based on the proposed effective date, no changes are required for the applicable "VSS adder" values calculated for use in determining the 2025-2026 Capability Year ICAP Demand Curves.
    - Revisions to the "VSS adder" value would be reflected in the ICAP Demand Curves starting with the 2026-2027 Capability Year and accounted for in the annual update to be completed on or before November 30, 2025.

New York ISO

Capacity Market Integration (cont'd)

- **The NYISO will need to identify a revised compensable MVAr capability for the peaking plant technology for each ICAP Demand Curve that will apply beginning with the 2026-2027 Capability Year and include this information in its compliance filing to implement FERC Order 904.**
  - The revised MVAr capability will be equal to the previously identified full MVAr capability for the applicable peaking plant technology less the MVAr capability within the proposed standard power factor range (0.95 leading to 0.95 lagging).
  - The NYISO will coordinate with the independent consultant for the 2025-2029 DCR to identify the MVAr capability encompassed by the proposed standard power factor range for the peaking plant technology options.
  - For the 2026-2027, 2027-2028, and 2028-2029 Capability Years, the "VSS adder" used in determining the ICAP Demand Curves would be based on the revised compensable MVAr capability of the applicable peaking plant technology and the applicable VSS compensation rate in effect at the time of each annual update.

New York ISO

Next Steps

Next Steps

- In the compliance filing due March 28, NYISO will propose the program design described in today's presentation.
- The NYISO will return to a future ICAPWG/MIWG if necessary to discuss any additional feedback.

New York ISO

Questions?

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

New York ISO