

Co-located Storage Resource Model Updates

Katherine Zoellmer

Market Design Specialist, New Resource Integration

MIWG/ICAPWG

February 20, 2024

Agenda

- **Project Background**
- **Proposed Tariff Changes**
 - MST 2.3
 - MST 5.12
 - MST 17.1
 - MST 23.2
- **Next Steps**

Note on the Tariff Changes

- The proposed tariff changes in the posted materials are built on top of the revisions that were approved at the December 2022 Management Committee meeting as part of the HSR project
- New modifications are highlighted in yellow. Modifications that were presented at the 12/15/23 MIWG are highlighted in grey in the posted materials

Project Background

CSR Model Background

- In 2021, the Co-located Storage Resource (CSR) model was deployed, allowing an Energy Storage Resource (ESR) to pair with a wind or solar Intermittent Power Resource (IPR) behind the same Point of Injection and share a set of CSR Scheduling Limits while participating in the ISO Administered Markets as two distinct Generators
- As part of the 2022 Hybrid Storage Resource (HSR) effort, the CSR model was expanded to include the following participation options:
 - ESR + Landfill Gas IPR
 - ESR + Limited Control Run-of-River Hydro (RoR)
 - ESR + Fast-Start Resource (FSR)

CSR Model Background

- A proposed 2024 project would further expand the eligibility of the CSR model to include steam turbines that pair with an ESR. Instead of creating an additional 2024 project, NYISO agreed to include this work as part of the ongoing HSR project
- As a result, the NYISO is proposing tariff modifications for a broader CSR expansion to allow an ESR to generically pair with another Generator, with the following limitations in place. The non-ESR Generator cannot be:
 - A Withdrawal-Eligible Generator
 - A Limited Energy Storage Resource
 - A Generator comprised of a group of generating units at a single location, which grouped generating units are separately committed and dispatched by the ISO, and for which Energy injections are measured at a single location
 - One or more Generators that are participating via a model that can accommodate several participants (such as HSR and DER) – similar to the "no nested Aggregations" rule
 - Generators that serve a Host Load

Proposed Tariff Changes

Overview of Tariff Changes

- At the 12/15/23 MIWG, modifications to the following tariff sections were presented to accommodate the expanded CSR model:
 - MST 2.3
 - MST 4.2
 - MST 4.4
 - MST 5.12
 - MST 7.2
 - MST 15.4
 - MST 23.2
 - OATT 2.7

Overview of Tariff Changes

- **The following additional sections have proposed tariff changes to accommodate the Generator + ESR model:**
 - MST 2.3 (update to the language presented on 12/15/23)
 - MST 5.12 (additional update)
 - MST 17.1
 - MST 23.2 (update to the language presented on 12/15/23)
- **Because many of the changes are made to the redlined tariff that was approved as part of the 2022 HSR project, the new proposed modifications are highlighted in yellow in the posted materials. Modifications that were presented at the 12/15/23 MIWG are highlighted in grey in the posted materials**

MST 2.3

- The NYISO proposes a modification to the definition of “Co-located Storage Resources” in MST 2.3 that expands eligibility of the program
- The NYISO proposes the following updated definition:
 - An Energy Storage Resource and one other type of Generator that is not a Withdrawal-Eligible Generator. The second participating Generator can be either a wind, or solar or landfill gas fueled Intermittent Power Resource, a Limited Control Run-of-River Hydro Resource, or a Fast Start Resource-Dispatchable Generator which may need to be committed by the ISO and require commitment and time to start-up. The two Generators must: (a) are both be located behind a single Point of Injection (as defined in Section 1.16 of the OATT); (b) participate in the ISO Administered Markets as two distinct Generators; and (c) share a set of CSR Scheduling Limits. Resources-Generators that serve a Host Load may not participate in the ISO-Administered Markets as components of a CSR include: (a) Limited Energy Storage Resources, (b) a Generator comprised of a group of generating units at a single location, which grouped generating units are separately committed and dispatched by the ISO, and for which Energy injections are measured at a single location, (c) Generators participating via a model that can accommodate several participants, including but not limited to Hybrid Storage Resources and Aggregations, and (d) Generators that serve a Host Load.

MST 5.12

- In addition to the updates to accommodate the expanded CSR model, a necessary update was identified regarding Capacity market bidding requirements for Hybrid Storage Resources
- The NYISO proposes the following updated language to MST 5.12.7.2:
 - The total amount of Energy that a Hybrid Storage Resource schedules, bids, or declares to be unavailable on a given day must equal or exceed the Installed Capacity Equivalent of the Unforced Capacity that its Energy Storage Resource and **any included landfill gas Intermittent Power Resource supplies**. A Hybrid Storage Resources must satisfy the Availability Requirements for its Energy Storage Resource **and for any included landfill gas Intermittent Power Resource**, in accordance with Section 5.12.7. Hybrid Storage Resources are not required to schedule or Bid the expected Energy output of participating **wind and solar Intermittent Power Resources and/or Limited Control Run-of-River Hydro Resources**, but they are required to notify the ISO if any of those resources are subject to an outage ~~that participate as part of a Hybrid Storage Resources required to.~~

MST 17.1

- The NYISO proposes a number of modifications in MST 17.1 to account for the expanded eligibility of resources to participate as CSR
- The NYISO proposes the following new addition to MST 17.1.2.1.2.1:
 - RTD will consider CSR Scheduling Limits when setting physical base points for Generators that participate as Co-located Storage Resources.
- The NYISO proposes the following update to MST 17.1.2.1.2.2:
 - The dispatch of Generators, including Fast-Start Resources, including and Fixed Block Units, that participate as Co-located Storage Resources will consider CSR Scheduling Limits.
 - Similar changes are proposed throughout MST 17.1.3

MST 23.2

- The NYISO proposes a modification to the definition of “Examined Facilities” in MST 23.2 to address comments received at the 12/15/23 MIWG
- The NYISO proposes the following update to a portion of the definition:
 - In the case of a Project that is **comprised of** Co-located Storage Resources ~~comprised of either a landfill gas Intermittent Power Resource or a Fast Start Resource, plus an Energy Storage Resource,~~ or a Project that is a Hybrid Storage Resource, that has a landfill gas Intermittent Power Resource as a component, the landfill gas or Fast Start Resource each participating Generator or component facility shall be treated as a separate Examined Facility unless the Developer of the Project certifies that all of the Project’s participating Generators ~~or the component facilities~~ qualify as an Excluded Facility, as defined in this Services Tariff, and it is determined to meet the criteria provided in that definition.

Next Steps

Note on Tariff Modifications

- **Tariff changes that were approved at the December 2022 Business Issues Committee and Management Committee meetings related to interconnection for Hybrid Storage Resources and Co-located Storage Resources will require additional modifications as a result of FERC Order No. 2023, “Improvements to Generator Interconnection Procedures and Agreements”**
 - Revisions will be necessary to comply with rules and requirements developed as part of Order No. 2023
 - Additional information will be provided after the NYISO submits its Order No. 2023 compliance filing to FERC

Next Steps

- **Bring the proposed tariff changes to an upcoming BIC and MC for a vote**

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