

Aggregation Manual Updates

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Agenda

- **Background & Overview**
- **Updates to Aggregation Manual**
- **Next Steps**
- **DER Deployment Status**

Background & Overview

- **This presentation describes additional language being added to the Aggregation Manual.**
 - Annual election
 - Switching Aggregations
 - DMNC testing
 - Mitigation
- **The order of sections in the Aggregation Manual will change prior to final publication.**
 - All Aggregation Manual ‘parts’ will be combined into a single document for final stakeholder approval and publication.

Background & Overview

- Aggregation Manual Part 2 reflecting the contents of today's presentation is posted with the meeting materials and also under the DER portlet section of the NYISO website: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>

Updates to Aggregation Manual

Annual Elections

Annual Elections

- **Aggregations that are ICAP Suppliers are subject to certain notification obligations when making changes to their operating capability or their participation in the NYISO-administered markets, for example, the requirement to notify the NYISO when electing to change the Aggregation's Energy Duration Limitation or the decision to end its ICAP market participation.**
- **Some changes, which are identified in the NYISO Services Tariff, require an Aggregator to notify the NYISO by August 1 of the calendar year that precedes a Capability Year.**
 - If one of these notifications is not made by the August 1 deadline the DER/Aggregation will default to the current setting for the upcoming Capability Year.
 - For example, for an Aggregation that has a 4-hour EDL, if no election is made by the August 1 deadline, the Aggregation will maintain a 4-hour EDL for the upcoming Capability Year.

Annual Elections – Energy Duration Limitation (EDL)

- Aggregations can elect to change an EDL on a Capability Year basis with notification required by August 1 to be applicable for the following Capability Year.

Annual Elections – Aggregation Type

- **An Aggregator may enroll an Aggregation to begin Capacity market participation at any time.**
 - A DER facility whose capability has contributed to an Aggregation's UCAP in a given Capability Year may only switch from a DER Aggregation to a single Resource type ("SRT") Aggregation (and vice versa) on an annual basis.
- **DER facilities that have contributed to an Aggregation's UCAP in a given Capability Year can elect to change to a new Aggregation of a different type on a Capability Year basis, by notifying the NYISO by August 1 and updating the Aggregation System accordingly.**
 - For example, a DER facility that participates in an SRT Generator Aggregation, in which the facility contributed to the SRT Generator Aggregation's UCAP, must submit an election by August 1 to transition to a DER Aggregation type for the upcoming Capability Year.

Annual Elections – Participation Model Transitions

- **A DER facility that has contributed to an Aggregation’s UCAP in a given Capability Year and wants to transition from the DER Program participation model to participate in the NYISO markets via a different participation model must elect to cease participation as a DER by August 1, and provide notice to the NYISO and complete the update in the Aggregation System by removing the DER facility from the applicable Aggregation.**
 - For example, a DER facility that has contributed to an Aggregation’s UCAP in a given Capability Year, starting in September 2023, must submit an annual election by August 1, 2024, in order to transition to a different participation model effective beginning in May 2025.

Annual Elections – Retail Load Modifiers

- DER facilities that switch from a retail load modifier to NYISO wholesale market participation must elect to do so by August 1 for the upcoming Capability Year.
- A DER facility that wants to exit the DER participation model to be a retail load modifier must notify the NYISO of its intention to exit.

Switching Aggregations

Switching Aggregations

- **DER facilities may switch between Aggregations on a monthly basis, provided that the switch does not change the Aggregation Type.**
- **DER facilities whose capability has contributed to an Aggregation's UCAP in a given Capability Year are subject to additional Aggregation switching requirements, pursuant to Services Tariff section 5.12.**
 - Please refer to the ICAP Manual section 4.1.3 for detailed requirements for DER switching between Aggregations.

DMNC testing

DMNC Testing

- **Aggregators should refer to ICAP Manual Section 4.2 for details pertaining to DMNC testing requirements for DER and Aggregations and should refer to the Aggregation System User’s Guide for details pertaining to formulating a proper DMNC submission.**
- **Aggregators should contact DER@nyiso.com for support with a DMNC submission if one of the following scenarios are applicable:**
 - A DMNC is being submitted for a Single Resource Type (SRT) ESR Aggregation comprising only electrochemical batteries, and the ESR has a 1-hour DMNC duration testing requirement as described in the ICAP manual.
 - A DMNC record is being submitted for an existing stand-alone Generator (i) with an EDL that has a valid, approved, in-period DMNC test type, and (ii) the Aggregator plans to transition the existing stand-alone Generator to a SRT Aggregation with an EDL using the SRT Transfer DMNC.
 - A DER facility whose capability has contributed to an Aggregation’s UCAP in a given Capability and is changing to another Aggregation in which the number of hours in the DER facility’s former Aggregation’s DMNC test is not the same as the number of hours in the new Aggregation’s DMNC test.

Provisional DMNC and SRT Transfer DMNC

- Pursuant to Services Tariff Section 5.12.13.1, a qualified ICAP Supplier that is an existing SCR or an existing Generator and i) meets the requirements to participate in an Aggregation and ii) is currently participating in the Capacity market or participated in the Capacity market in the prior like Capability Period, may be eligible to offer its capacity as a DER through an Aggregation without missing a month of Capacity market participation.
 - The use of a provisional DMNC or SRT Transfer DMNC will be subject to NYISO review.
 - A provisional DMNC or SRT Transfer DMNC is valid for the first Capability Period in which the DER facility participates in an Aggregation and will be end-dated to reflect the last day of that Capability Period.
- An Aggregator may only use a Provisional DMNC or SRT Transfer DMNC for a DER facility upon that DER facility's transition to the DER participation model and must declare the Provisional DMNC or SRT Transfer DMNC value when it enrolls the facility.
- A Provisional DMNC or SRT Transfer DMNC value may be utilized for a DER facility until the Aggregation establishes its DMNC value for that Capability Period through an in-period DMNC test.
- A provisional DMNC may be used when an existing Generator or SCR is transitioning to a DER Type Aggregation.
 - An SRT Transfer DMNC may be used when an existing Generator is transitioning to an equivalent Single Resource Type Aggregation
- An Aggregator with an Aggregation that may be eligible to utilize a provisional DMNC or SRT Transfer DMNC based on the Aggregation's composition should contact DER@nyiso.com to discuss the process requirements before submitting DER and Aggregation information for enrollment into the Aggregation System.

SRT Transfer DMNC

- **A stand-alone Generator may use a SRT Transfer DMNC (which is the upper limit of ICAP that an Aggregator can declare for a DER facility that previously participated in the NYISO-administered markets as a Generator) when a Generator is transitioning to an equivalent Single Resource Type Aggregation (e.g., when a stand-alone ESR seeks to enter an ESR Aggregation).**
 - For an existing Generator, the maximum ICAP that an Aggregator can declare when the Generator transfers to DER participation in an Aggregation shall be the minimum of the Generator’s approved “in-period” DMNC rating from when it was a Generator and the Generator’s CRIS.

Provisional DMNC

- **An existing SCR that enters an Aggregation to become a Distributed Energy Resource may be eligible to begin its Capacity market participation as a DER using a provisional DMNC.**
- **For an existing SCR, the maximum ICAP that an Aggregator can declare for the DER transition from SCR shall be the upper limit of ICAP (the SCR's former Average Coincident Load (ACL)) of the SCR for the current Capability Period.**
- **When an SCR enters an Aggregation and becomes a DER at the beginning of a Capability Period (i.e., begins participating as a DER on May 1 or November 1), the maximum Installed Capacity that an Aggregator can declare for that Distributed Energy Resource shall be the ACL of the Special Case Resource from the immediately prior like Capability Period.**
 - A provisional DMNC must be validated by an applicable “in-period” DMNC completed by the Aggregation.
 - After completion of a DMNC test as a DER, typically within the first month of participation, the DER will be subject to penalties for any amount of oversold ICAP.

Mitigation

Energy Market Mitigation

- **Aggregations are subject to the market mitigation measures contained in Services Tariff Sections 23 and 30.**
 - The mitigation rules that apply to an existing resource type, such as an ESR, shall apply to an Aggregation of the same type, e.g., an ESR Aggregation.
- **An Aggregator shall not use Aggregations to avoid the application of mitigation or financial sanctions under the NYISO's Market Mitigation Measures.**
 - The NYISO shall monitor for conduct that may be used by an Aggregator to avoid the application of mitigation, including but not limited to creating or dissolving Aggregations or moving facilities between Aggregations.
- **Aggregators may only use cost-based reference levels for Aggregations – bid-based, LBMP-based, and new unit reference levels are prohibited for use by Aggregators. For more information, please refer to the Reference Level Manual.**

Capacity Market Mitigation

- **Aggregations are subject to the market mitigation measures contained in Services Tariff Sections 23 and 30.**
- **Buyer Side Mitigation**
 - Injection-capable facilities, that are not Excluded Facilities, participating in an Aggregation are subject to the NYISO's BSM rules, pursuant to Services Tariff section 23. Demand Side Resources participating in an Aggregation are not subject to the NYISO's BSM rules. Proposed new generators seeking to participate in an Aggregation or additional CRIS for an injection-capable facility participating in an Aggregation are examined in a two-part test to determine whether an Offer Floor is applicable.
 - All individual injection-capable facilities participating as DER in an Aggregation, and that are not Excluded Facilities, are evaluated as independent 'Examined Facilities' – only revenue streams and costs associated with each individual facility are evaluated. Revenue streams may include those earned by providing energy services to another entity, such as a utility, if the facility is engaged in dual participation pursuant to Services Tariff section 4.1.11.
 - Competitive Entry, Renewable, and Self-Supply exemptions are available to injection-capable facilities participating in an Aggregation. If a facility is not exempt, an Offer Floor is applied upon enrollment to the accepted CRIS value associated with that individual facility.
- **Supply Side Mitigation**
 - All injection-capable facilities participating in Aggregations that are capacity Suppliers are subject to the Physical Withholding rules relating to the audit of removal of capacity from Mitigated Capacity Zones. Demand Side Resources participating in an Aggregation are not subject to the NYISO's Physical Withholding rules.
 - Aggregations that are capacity Suppliers are subject to the Pivotal Supplier 'must-offer' rule. Aggregators must identify Affiliated Entities as defined in Services Tariff section 23.2.1, pursuant to Services Tariff section 5.12.1. Aggregations are not permitted to request a Going Forward Cost.

Next Steps

Next Steps

- **The NYISO intends to review any final modifications to the Aggregation Manual at ICAPWG in June, prior to pursuing a vote at BIC and OC.**
- **Please provide any feedback on the language presented today by COB Thursday, June 8.**
- **Please send any questions that were not addressed during this presentation to: DER_Feedback@nyiso.com**

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

Questions?

Appendix - DER Deployment Status

2023 DER Deployment Milestones

- **April 27: NYISO began accepting Customer Registration for Aggregators.**
- **Tariff is expected to become effective summer 2023 – enrollment of DER and Aggregations begins**
- **Date of Enrollment + Workflow Reviews: Distribution Utility review and NYISO workflow begins upon submission of Aggregation and DER enrollment data to the Aggregation System; expected to take approximately 90 days.**

Manuals and Guides

- **The NYISO will return to present the following remaining manuals throughout Q2 in preparation for DER deployment:**
 - Aggregation Manual – Addressing feedback as needed
 - ICAP Manual – Remaining section 6 for Attachment J; Addressing feedback as needed
- **User's Guides are not reviewed in Working Groups.**
 - The NYISO intends to publish the following User's Guides throughout prior to deployment:
 - Aggregation System User's Guide
 - Market Participant User's Guide
 - GOCP User's Guide
 - Wind and Solar Plant Data User's Guide
 - RLS User's Guide
 - AMS Automated Market User's Guide
 - DRIS User's Guide
- **The Direct Communications Procedure (CEI) is updated to reflect the DER participation model and is available for stakeholder request via stakeholder services online form request:**
 - <https://nyiso.tfaforms.net/187>

NYISO DER Market Training Information

- **Current target training schedule – *Subject to change***

Training	Target Training Date(s)	Announcement target date
GOCP Market Trials Training for TO Users (Complete)	April 26 – May 03	Complete
GOCP Market Trials for TO Users (Complete)	May 09-11; May 16-18	Complete
GOCP Market Trials for Aggregator Users (Complete)	May 23 – 25	Complete
DER Onboarding Suite	June 16	June 16 – eLearning, fact sheets, infographics, FAQs available
GOCP Standalone Training (3 unique modules for Aggregator, DSO, TO)	June 16	June 16 – eLearning available
DER Bid-to-Bill Participation	June 29; August 14 – August 25	June 29 – eLearning overview available July 24 – August 10 – registration open for August WebEx training