

DER Meter Service Constructs for NYISO Market Participation

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Market Issues Working Group (MIWG)

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Background

Date	Working Group	Discussion points and links to materials
02-02-17	Posted	Distributed Energy Resources Roadmap for New York's Wholesale Electricity Market
05-23-17	Market Issues Working Group (MIWG)	DER Measurement & Verification, Monitoring & Control, and Meter Data Study
09-29-17	Market Issues Working Group (MIWG)	DER Meter Data Study
10-30-17	Market Issues Working Group (MIWG)	DER Meter Data Study Initial Findings – E-Cubed Policy Associates, LLC (Dr. Paul Sotkiewicz)
12-13-17	Market Issues Working Group (MIWG)	NYISO Meter Data Study Report – E-Cubed Policy Associates, LLC (Dr. Paul Sotkiewicz)

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Background

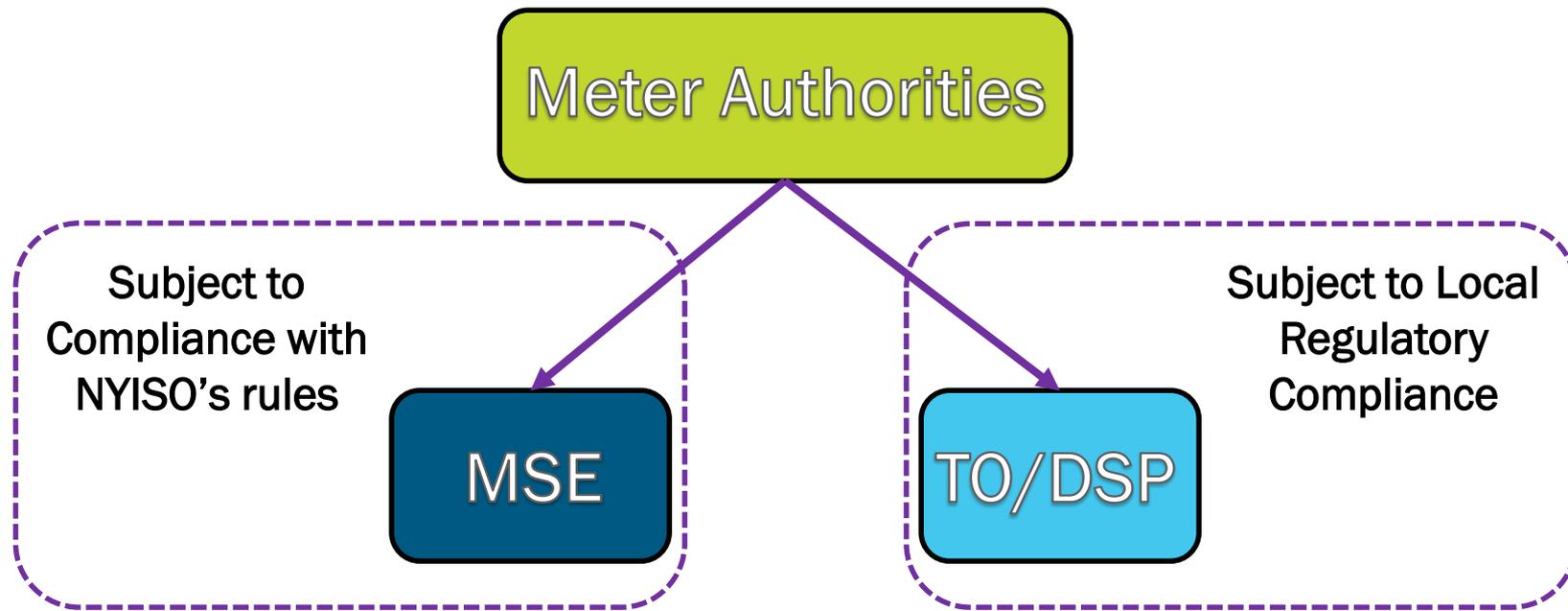
- Proliferation of DER participation in NYISO markets presents a challenge to existing metering constructs in New York with potentially thousands of resources needing meters to be installed, certified, and maintained, along with all the data services associated with meter data submissions
- NYISO's current demand response programs allow two types of entities to provide physical meter services (MSP) and meter data services (MDSP)
 - Third-party meter data service providers (MDSP) and meters service providers (MSP) that are approved by the New York State Public Service Commission (PSC)
 - The PSC originally developed the MDSP/MSP construct for competitive retail metering services prior to the initiation of the NYISO's demand response programs
 - Transmission Owners (TOs) have been granted MSP and MDSP authority by the PSC

Third Party Provision for Meter Services

- Other ISO/RTOs (CAISO, PJM, MISO and ISO-NE) allow third-parties to provide metering services for wholesale market participation
- Third Party Metering Constructs across other ISOs/RTOs vary in design on these high-level areas:
 - Degree of ISO administrative oversight
 - Procedures for measurement and verification (M&V)
 - Penalties for non-compliance

NYISO Proposal - Meter Service Entities (MSE)

Meter Authorities



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3rd Party Metering Service Entities (MSE)

- A MSE may be a Market Participant or other third-party entity that provides revenue metering and data services, including the provision of telemetry data, for a DER Coordinating Entity Aggregation (DCEA) for NYISO market participation
- A MSE must qualify to provide the NYISO with wholesale market metering services
 - The MSE's authority for providing wholesale market metering services will be subject to an annual self-audit/compliance certification submitted to the NYISO or its designee

General MSE Requirements

- **Business**
 - Proof of eligibility to do business in NYS
 - Attestation of proper employee training and competence to perform declared services
 - List of services to be provided to Market Participant
 - Description of MSE facilities that will perform and support declared services
 - Insurance coverage for any claims brought against the MSE, any subcontractors and liabilities
- **Standards Compliance**
 - Adherence to applicable ANSI and NAESB standards
 - Adherence to local utility requirements in which the MSE operates
- **Services**
 - Design and operation of metering and telemetry infrastructure
 - Records and meter data management plan
- **NYISO will review documents for compliance to the NYISO MSE eligibility requirements and rules and will provide approval**

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MSE Responsibilities to Support DER Specific Requirements

- **Managing data aggregation for individual DER within a DCEA**
 - Constructing all 3 telemetry components: Injection, Load Reduction, Total Response
 - All dispatch information sent to and from the NYISO would need to be collected and aggregated for each component of an aggregations response
 - All data used to calculate baselines for load reduction portion of the DER
 - The physical load values of facilities would need to be collected and retained for the purpose of calculating baselines for each individual DER
- **Direct Metering of ESR**
 - All injecting ESR co-located with load will be required to be directly metered
 - Installing and supporting additional meters beyond the utility net-meter is required for any resource wishing to participate with this configuration

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Oversight of MSE Compliance

- **The NYISO and/or its designee would:**
 - Review and approve entities requesting to provide MSE services
 - Validate/Audit MSE physical meter and meter data to ensure compliance with NYISO's requirements for:
 - Physical meter services:
 - Meter certification and approval for specific use cases
 - Audit meters inspection and testing facilities, and meter test results
 - Meter data services:
 - Audit: Validation, Estimation, and Editing (VEE) processes, systems calculations for data aggregation and baselines
 - Support meter data corrections and updates by the MSE

Resourcing Required to Support MSE Construct

- NYISO expects additional staff will be needed to support the Meter Services Entities construct
- NYISO is considering options for recovering costs to support a new MSE construct
 - Potentially similar in design to Rate Schedule 7

Next Steps

- The NYISO proposes to deploy the Meter Service Entity construct ahead of the Dispatchable DER Participation Model in 2021
- All existing third-party entities providing metering services for the purpose of NYISO wholesale market participation will require MSE certification upon program deployment

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The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefits to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policy makers, stakeholders and investors in the power system



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Appendix

2017 Meter Data Study – Findings Regarding Metering Institutions

- Summary of E-Cubed Policy Associates’ findings regarding Metering Institutions:
 - Various compliance monitoring strategy for metering provided by Market Participants or designated third party
 - PJM relies on defining requirements, allowing a self-certification/attestation process, and reserving the right to audit
 - ISO-NE has initially relied defining requirements and a yearly independent audit, but is moving towards a self-certification/attestation process similar to PJM but with a more rigorous ISO monitoring strategy
 - CAISO relies on an in-house training program and certification/inspection process for ISO Metered Entities (ISOME) but allows self-certification for Scheduling Coordinator Metered Entities (SCME), however cannot use the same third party vendor (i.e. vendor certifying metering installation cannot be the same as the vendor who provided the metering equipment)



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Summary of Approaches at other ISO/RTOs

	PJM	ISO-NE	CAISO
Allow Third Party Meter Service Providers	Yes, including self-certify	Yes, including self-certify	Yes
M&V Monitoring Strategy	Manual periodic checks by RTO with utility support	Automated periodic checks by ISO	Not Available
Penalties for Non-Compliance	Disqualification of CSP to provide meter services	Removal of resource from market	Penalties and sanctions by approval of FERC
Administrative Mechanisms to Monitor Compliance	Subject to RTO audits	Annual M&V audit by independent auditor in addition to being subject to ISO audits Annual M&V audits to be removed as a requirement	Authorization and training program administered by ISO for third party companies Bi-annual self-audit attestation of compliance by Scheduling Coordinator ⁶²
Resourcing Level of ISO/RTO to Develop M&V Approach	Low	High	Moderate
Resourcing Level of ISO/RTO for Continuous Administration of M&V Approach	Low	Moderate	High

Chart from: [NYISO Meter Data Study Report](#) – E-Cubed Policy Associates, LLC (Dr. Paul Sotkiewicz)

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