UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

NRG Curtailment Solutions, Inc.			
Complainant,)		
)		
V.)		
)		
New York Independent System Operator, Inc.)		
Respondent.)		

Docket No. EL18-188-000

MOTION FOR LEAVE TO ANSWER AND SUPPLEMENTAL ANSWER OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC

The New York Independent System Operator, Inc. ("NYISO") hereby submits this supplement to its August 13, 2018, Initial Answer¹ in this proceeding ("Supplemental Answer") to update the Federal Energy Regulatory Commission ("Commission") on the progress the NYISO has made to replace its existing third-party metering rules with a new, comprehensive set of third-party metering rules that will be used to enable participation in the NYISO-administered wholesale markets. The Commission should accept this Supplemental Answer because it provides information that will assist the Commission in its decision-making process.

In its Initial Answer the NYISO advised the Commission of its efforts to evaluate options to replace its existing third-party metering rules with a new, comprehensive set of third-party metering rules. Since NYISO filed its Initial Answer, the NYISO has developed a way forward to replace the currently effective third-party metering rules. The NYISO is working with its stakeholders to develop Tariff enhancements that will (i) permit Market Participants to utilize

¹ New York Indep. Sys. Operator, Inc., Aug. 13, 2018 Answer, Docket No. EL18-188-000 ("Initial Answer").

third-party metering authorities (also known as "Meter Service Entities" ("MSEs")) to report meter data to the NYISO, (ii) establish the eligibility and qualification criteria for MSEs; (iii) identify the ongoing responsibilities of Market Participants, MSEs, and the NYISO; and (iv) set forth remedies to address MSEs that fail to comply with the proposed new standards.

I. REQUEST FOR LEAVE TO ANSWER

The Commission has discretion to, and routinely accepts, answers to answers where, as here, they help to clarify complex issues, provide additional information, are otherwise helpful in the development of the record in a proceeding, or assist in the decision-making process.² The NYISO's Supplemental Answer satisfies these standards and should be accepted because it provides clarification and additional information that will help the Commission fully evaluate the arguments in this proceeding. The NYISO, therefore, respectfully requests that the Commission accept its Supplemental Answer.

II. BACKGROUND

On July 24, 2018, NRG Curtailment Solutions ("NRG") submitted a request for waiver of certain requirements in the NYISO's tariffs and manuals that Curtailment Service Providers ("CSPs") and Responsible Interface Parties ("RIPs") participating in the NYISO-administered installed capacity market use a New York Department of Public Service ("NYDPS") certified Meter Service Provider ("MSP") or Meter Data Service Provider ("MDSP") to install and read

² See, e.g., New York Independent System Operator, Inc., 134 FERC ¶ 61,058 at P 24 (2011) (accepting the answers to protests and answers because they provided information that aided the Commission in better understanding the matters at issue in the proceeding); New York Independent System Operator, Inc., 140 FERC ¶ 61,160 at P 13 (2012) and PJM Interconnection, LLC, 132 FERC ¶ 61,217 at P 9 (2010) (accepting answers to answers and protests because they assisted in the Commission's decision-making process).

non-revenue interval meters.³ In the alternative, NRG requested that the Commission find that the NYISO's MSP and MDSP requirements are unjust and unreasonable.⁴

In its Initial Answer, the NYISO argued that the Commission should deny NRG's request for waiver because the requested waivers: (i) were not limited in scope because they not only sought to suspend application of existing requirements but also to establish entirely new requirements; (ii) did not remedy a concrete problem because NRG failed to demonstrate that, absent the waiver, it could not obtain meter data services under the existing rules; and (iii) the waivers, if granted, would have the undesirable consequence of permitting entities to provide metering services without ensuring that the entity can satisfy metering standards, and without adequate NYISO oversight.⁵

The NYISO further argued in response to the alternative complaint that the existing rules were not unjust or unreasonable, and that the Commission should deny NRG's Complaint because the NYISO's tariffs provide CSPs and RIPs with multiple avenues for obtaining the meter data services required to participate in the wholesale markets. Finally, the NYISO's Initial Answer argued that NRG's Request for Waiver and Complaint sought to impermissibly bypass the NYISO's stakeholder process,⁶ and outlined the ongoing evaluation of metering service options that might be implemented to improve or replace the existing rules.

³ NRG Curtailment Solutions, Inc., July 24, 2018 Request for Waiver, or in the Alternative, Complaint, Docket No. EL18-188-000 at 7-13.

⁴ *Id.* at 13-17.

⁵ Initial Answer at 4-8.

⁶ *Id.* at 11-12, citing *ISO New England Inc.*, 130 FERC ¶ 61,145, at P 34 (2010) ("we encourage parties to participate in the stakeholder process if they seek to change the market rules..."); *ISO New England Inc.*, 125 FERC ¶ 61,154 at P 39 (2008) (directing that unresolved issues be addressed through the stakeholder process); *ISO New England*, 128 FERC ¶ 61,266 at P 55 (2009) (declining to grant a party's specific request for relief because the Commission "will not ... circumvent that stakeholder process"); *New York Independent System Operator, Inc., New York Transmission Owners*, 126 FERC ¶ 61,046, at PP 53-54 (2009) (directing that a proposal be "presented to and discussed among ... stakeholders and filed as a section 205 proposal, not unilaterally presented to the Commission"); *New England Power Pool*, 107 FERC ¶ 61,135 at PP 20, 24 (2004) (declining to accept changes

III. SUPPLEMENTAL ANSWER

The NYISO has continued discussions with its stakeholders related to replacing its existing third-party metering rules with a new, comprehensive set of third-party metering rules. On September 11, 2018, the NYISO discussed with its stakeholders the framework for establishing new MSE rules. That proposal identified the basic requirements for MSE eligibility, MSE responsibilities, and, at a high level, the additional ISO staff and other resources that will be required to implement the proposal. The NYISO will continue its efforts to work with its stakeholders to develop MSE rules on October 23, 2018 when it will provide additional details on MSE eligibility requirements and obligations, NYISO responsibilities, and information related to the development of a new rate schedule that will allow the NYISO to recover the costs of administration. The NYISO's September 11 and October 23, 2018 presentations are attached to this Supplemental Answer. The NYISO expects to review draft tariff revisions with stakeholders by the end of this year, and anticipates presenting the final tariff revisions for stakeholder approval as part of a broad package of tariff enhancements to integrate Distributed Energy Resources.

proposed for the first time in a FERC proceeding by an entity that participated in the stakeholder process because the "suggested revisions have not been vetted through the stakeholder process and could impact various participants").

IV. CONCLUSION

WHEREFORE, the New York Independent System Operator, Inc. respectfully requests that the Commission accept this Supplemental Answer to NRG's July 24 Complaint as it will not unduly prejudice or delay the proceeding, and the materials provide information that will assist the Commission in its decision-making process.

Respectfully submitted,

<u>/s/ Gregory Campbell</u> Gregory J. Campbell Attorney New York Independent System Operator, Inc. 10 Krey Blvd. Rensselaer, NY 12144 Tel: (518) 356-6000 gcampbell@nyiso.com

October 22, 2018

cc: Nicole Buell Anna Cochrane James Danly Jignasa Gadani Jette Gebhart Kurt Longo David Morenoff Daniel Nowak Larry Parkinson Douglas Roe Kathleen Schnorf Gary Will Attachment I

DER Meter Service Constructs for NYISO Market Participation

Michael Ferrari

Associate Market Design Specialist

Market Issues Working Group (MIWG)

September 11th, 2018



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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 <u>physical meter services</u> (MSP) and <u>meter data services</u> (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

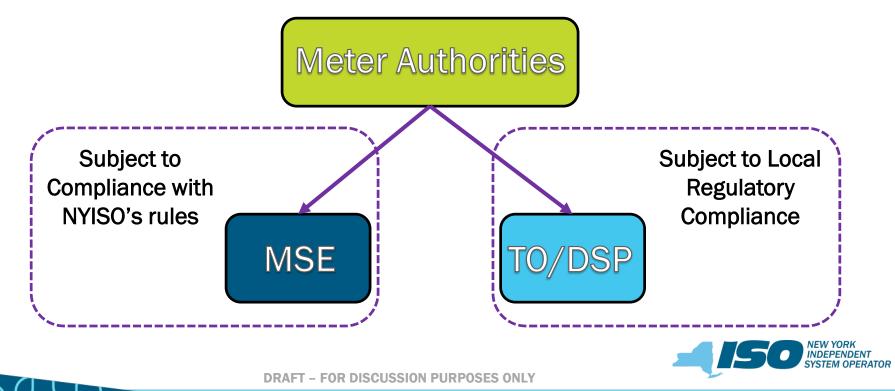
- Other ISO/RTOs (CAISO, PJM, MISO and ISO-NE) allow thirdparties to provide metering services for wholesale market participation
- Third Party Metering Constructs across other ISOs/RTOs-vary in design on these high-level areas:
 - Degree of ISO administrative oversight
 - Procedures for measurement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



NYISO Proposal -Meter Service Entities (MSE)



Meter Authorities



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



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



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



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



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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 selfcertification/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)



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

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Chart from: <u>NYISO Meter Data</u> <u>Study Report</u> – E-Cubed Policy Associates, LLC (Dr. Paul Sotkiewicz)



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Attachment II

Conceptual Details of MSEs Participation in NYISO Markets

Michael Ferrari Associate Market Design Specialist

Market Issues Working Group (MIWG)

October 23, 2018, NYISO



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Agenda

- MSE Detailed Proposal
- Next Steps
- Q&A and Feedback



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
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09-11-18	Market Issues Working Group (MIWG)	DER Meter Service Constructs for NYISO Market Participation

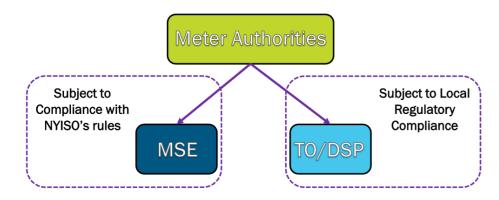
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Review



- NYISO is developing a new Metering Service Entity construct that will authorize qualified entities to provide meter services to DER Aggregations
 - New rules will replace the existing MSP/MDSP constructs used for the NYISO's demand response programs
- MSE rules will be included with the tariff revisions to integrate the DER participation model



MSE - Detailed Proposal



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Tariff and Manual Revisions

- NYISO is developing rules and procedures to implement the MSE market design
 - NYISO is determining the tariff revisions that are necessary to implement the MSE market design, including the NYISO's and DER Aggregator's requirements
 - Additional procedures will be included in the NYISO Manuals

MSE Rate Schedule

- NYISO will develop a new Rate schedule to recover NYISO costs for the oversight of the MSEs
- Structure:
 - Fixed annual amount per MSE
 - Variable amount per meter, potentially with a tiered structure for the MW size of the DER.
 - MP is responsible to the NYISO for these costs



MSE Definition and Roles

- A MSE is a third-party entity,¹ that is approved by NYISO, that provides metering and data services, including the provision of real-time telemetry data and revenue metering data, for a Aggregation for participation in the NYISO markets
 - DER Aggregators will engage authorized MSEs to provide services for its Aggregations, and will be responsible for any financial compensation paid to the MSE for the services it provides

• MSE may provide metering hardware or may utilize utility revenue metering hardware

- Metering configuration options will be set forth in ISO Procedures
- All metering hardware must meet applicable NYISO and ANSI standards as specified in ISO Procedures
- Meter hardware must meet installation requirements as specified in ISO Procedures
- Must meet cyber security requirements for communications with NYISO in accordance with all applicable rules and procedures
- 1. An MSE may be a Market Participant if the MSE is a NYISO Customer



Eligibility Requirements: Business

Financial eligibility & Insurance Coverage

- Evaluating potential credit and collateral obligations for MSE authorization, as well as insurance coverage requirements
- Eligible to do business in NY State



Eligibility Requirements: Application Process

An entity seeking to be a MSE must submit the following to NYISO:

- Listing of utilities in whose service territories the MSE will provide services
- Listing of metering services to be provided
- Attestation that the MSE is qualified and employees have the necessary training and certification, to perform metering hardware installation, testing and other meter data services
- Acknowledgment that the services of the MSE will be subject to audits by NYISO and/or the utilities or other designated parties
- Agreement to Comply with NYISO Rules and Procedures as well as all applicable local, state and federal laws and regulations



MSE's Responsibilities: Plans

As part of application, the entity seeking to be an MSE shall provide:

- Description of the metering site and meter testing facilities including attestation that meter test programs are compliant with the NYISO procedures.
- Settlement Meter and Real-Time Telemetry Data Plan in accordance to ISO Procedures.
 - Meter type, programming and configuration
 - Data collection, validation, retention, data aggregation, and data submission to NYISO
- Meter data Validation, Editing, and Estimation (VEE) plan in accordance to ISO Procedures.
- Physical security plan and description of how the MSE will protect meter equipment and/or meter data from unauthorized physical or electronic entry or tampering.
 - Including standards governing security and confidentiality for its employees.
- Description of how and where records of meter installations and/or meter data will be kept
 - Plans for disaster recovery of those records.
 - Means of ensuring that those records will be available to the NYISO in event the MSE leaves the NYISO market or becomes unable to meet minimum eligibility requirements.



MSE's Responsibilities: Operations

The MSE shall:

- Conduct or have conducted yearly audits and testing of Metering Facilities.
- Ensure that appropriate inspections, if any, are completed by the local utility and/or regulatory authorities prior to meter installation.
- Perform meter data Validation, Estimation, and Editing (VEE) in accordance with VEE plan and ISO Procedures.
- Maintain electrical and schematic diagrams and other documentation associated with metering systems and components in accordance with ISO Procedures.
- Maintain all data and information associated with billing and operational data, (including but not limited to real-time telemetry, periodic calibration and test data of metering devices) for 6 years in accordance with ISO Procedures.



MSE's Responsibilities: Operations (Cont'd)

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MSE shall:

- Collect real-time telemetry and revenue meter data from DER participating in wholesale markets
- Provide the real-time telemetry and revenue meter data to the NYISO according to applicable timing and accuracy requirements
- Support meter data processing and analytics in accordance to ISO Procedures.
- Support the NYISO settlements and dispute resolution procedures.
- Verification of meter accuracy and compliance with applicable standards
- Provide written notice to the NYISO and the applicable MP of any defective meters, technical issue(s) or condition that may prevent the collection or reporting of accurate meter data, or loss of meter data
- Take actions to rectify meters failing to meet standards, either on an individual meter or a programmatic basis
- Establish the data collection devices or metering for telemetry data (RTUs, transformers, IEDs, etc.) to NYISO and TO in accordance with ISO Procedures.
- Report meter data issues to the NYISO in accordance with ISO Procedures.



MSE's Responsibilities: Updating Information

Amendments to Application Filings:

- An MSE shall submit an amendment to its application for eligibility within 5 days of any changes to any of the information included on its application or any subsequent amendment.
- Eligible MSEs filing amended applications will continue to be eligible unless otherwise directed by the NYISO.
- Maintain compliance with MSE rules and eligibility requirements in response to changes in the tariff, other NYISO procedures, or other changes affecting MSE eligibility and responsibilities as may be developed by the NYISO, within the deadline specified by NYISO.

NYISO Responsibilities

- Review applications and authorize entities to be MSEs
 - Including the review of all MSE plans; and
 - approve, request more information, conditionally approve or deny MSE applications
- Perform audits and request information
- Settlements
 - According to NYISO settlement procedure
- Dispute resolution
 - According to NYISO meter data dispute resolution procedure.

Compliance

- If the NYISO determines that an MSE is not in compliance with the conditions of eligibility and/or performance standards and rules, the NYISO reserves the right take corrective actions
- Revocation and suspension for repeated non-compliance:
 - DER using MSE services would be ineligible to participate in the NYISO market till the MSE is re-authorized by the NYISO
 - DCE will have the option to choose another MSE that is authorized by the NYISO
 - Any penalties associated with market rule violations or settlements issues arising from MSE failures are the responsibility of the MP contracting the MSE



Non-Compliance Examples

- Failure to maintain eligibility and registration requirements as an approved MSE
- Failure to meet performance standards
- Non-compliance with the market rules
- Failure to provide adequate information in response to any request by NYISO.
- Failure to provide valid estimated and edited data pursuant to a VEE audit.



Next Steps



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Timeline

- Tariff details development
- MIWG Meeting Draft Tariff (11/05/18)
- MIWG Meeting Final Tariff (11/19/18)



Feedback?

Email additional feedback to: DER_Feedback@nyiso.com



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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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding in accordance with the requirements of Rule 2010 of the Rules of Practice and Procedure, 18 C.F.R. § 385.2010.

Dated at Rensselaer, NY this 22nd day of October 2018.

By: <u>/s/ John C. Cutting</u>

John C. Cutting New York Independent System Operator, Inc. 10 Krey Blvd. Rensselaer, NY 12144 (518) 356-7521