

# NYISO Pilot Program Update

---

**Brian Yung**

Senior Market Design Specialist

**Market Issues Working Group**

July 26, 2018, 10 Krey Blvd, Rensselaer, NY 12144



**DRAFT – FOR DISCUSSION PURPOSES ONLY**

©COPYRIGHT NYISO 2018 ALL RIGHTS RESERVED

# Previous Materials

Date	Working Group	Discussion points and links to materials
02-02-17	Posted	<a href="#">Distributed Energy Resources Roadmap for New York's Wholesale Electricity Market</a>
02-28-17	Market Issues Working Group (MIWG)	<a href="#">Comparison of pilot projects and programs in organized wholesale electric markets</a>
05-05-17	Market Issues Working Group (MIWG)	<a href="#">Pilot program framework proposal</a> Topics: program intent, draft eligibility and participation rules, and high level pilot objectives
06-21-17	Market Issues Working Group (MIWG)	<a href="#">Pilot program framework proposal</a> Topics: detailed pilot objectives, pilot selection criteria, scheduling process, and reporting obligations
08-09-17	Business Issues Committee (BIC)	<a href="#">DER Pilot Program</a>
09-29-17	Market Issues Working Group (MIWG)	<a href="#">DER Pilot Program</a> Topics: review of program draft documents and pilot selection timeline
05-15-18	Market Issues Working Group (MIWG)	<a href="#">NYISO Pilot Program Update</a> Topics: review of program timeline and summary of proposed pilots

# Purpose of Today's Meeting

- Background
- Pilot Proposal Summary
- Description of Proposals Under Final Review
- Anticipated Project Timeline
- Next Steps

# Background

- **As part of DER Roadmap efforts, NYISO will work with interested parties to establish Pilot Projects**
  - Purpose is to demonstrate DCEA/DER capabilities, integration, coordination, and dual participation
- **The Pilot Program will be administered through a test environment, not in the NYISO's production (*i.e.*, "live") market and operations system**
- **Pilot Program participants will not be compensated by the NYISO for participation in the Pilot Program**
- **The Pilot Projects will provide value to NYISO stakeholders and Pilot Participants by**
  - Demonstrating their capabilities to provide existing dispatchable market products and meet relevant performance requirements
  - Engaging and exercising their DER technologies and solutions in a simulated ISO dispatch environment
  - Coordinating with the NYISO and Utilities to dispatch DER aggregations
- **The deadline to submit proposals was January 31, 2018**

# Pilot Proposal Summary

- Total of 10 proposals for consideration (11 submitted; 1 withdrawn)
- More than 12 MW proposed in total from the 10 proposals
- 3 proposals have been selected by the NYISO for the Final Review Process and include aggregations comprised of the following:
  - High-rise buildings capable of curtailing load
  - In-front-of-the-meter battery energy storage facilities co-located with solar
  - In-front-of-the-meter battery energy storage facilities

# Ancillary Services and Energy Dispatch of Synchronous Curtailable Resources

## Pilot Applicant: Integrated Energy Services Corporation (Axon)

- **Anticipated Aggregation MW Capability**
  - 1 MW (load reduction)
- **Number of DER**
  - Approx. 10 buildings in Zone J
- **DER Type**
  - Curtailable Load (Commercial HVAC)
- **Demonstrable Market Products**
  - Energy, Spinning Reserves, Regulation Service
- **Non-Pilot Activity**
  - Participate in NYISO Special Case Resource Program and in Con Edison's Rider T Demand Response Program
- **Anticipated Objectives**
  - Demonstrate ability to provide 6-second telemetry based on utility revenue meter data
  - Demonstrate energy baseline methodologies proposed by NYISO DER market design effort
  - Demonstrate operational coordination with NYISO for non-wholesale activity
  - Evaluate capability of building management systems to provide ancillary services

# Solar-Plus-Storage Dual Participation

## Pilot Applicant: Borrego Solar Systems, Inc.

- **Anticipated Aggregation MW Capability**
  - 4 MW (capable of injecting into grid)
- **Number of DER**
  - 2 facilities in Zone G
- **DER Type**
  - Energy Storage (Electrochemical Battery)
- **Demonstrable Market Products**
  - Energy, Spinning Reserves, Regulation Service
- **Non-Pilot Activity**
  - Participate under Value of DER (VDER) tariff
- **Anticipated Objectives**
  - Demonstrate use of a third party vendor to provide telemetry aggregation services
  - Demonstrate operational coordination with NYISO for non-wholesale activity
  - Demonstrate measurement and verification of an aggregation of energy storage assets co-located with generation (i.e. solar)
  - Demonstrate regulation service with distribution-connected DER aggregation

# CECONY Pilot: Energy Storage Aggregation

## Pilot Applicant: Consolidated Edison

- **Anticipated Aggregation MW Capability**  
500 kW (capable of injecting into grid)
- **Number of DER**  
2 facilities in Zone J
- **DER Type**  
Energy Storage (Electrochemical Battery)
- **Demonstrable Market Products**  
Energy, Spinning Reserves, Regulation Service
- **Non-Pilot Activity**  
Provide distribution system relief
- **Anticipated Objectives**
  - Demonstrate coordination of multiple DER to be effectively dispatched by NYISO or Con Edison's Distributed System Platform (DSP)
  - Demonstrate operational coordination with NYISO for non-wholesale activity
  - Demonstrate measurement and verification of an aggregation of energy storage facilities



# Other Pilot Objectives

- **Generally the following pilot objectives will also apply to all Pilot Projects:**
  - Evaluate aggregation's ability to meet dispatch (i.e. real-time) base points
  - Evaluate the ability for an aggregator to determine aggregation-level operating parameters (e.g. response rates)
  - Demonstrate that an aggregation can meet the proposed real-time telemetry requirements proposed by the NYISO for a DCE Aggregation (DCEA)
- **NYISO is also considering evaluating a secure, alternative networking option using public internet for real-time telemetry with any of the interested Transmission Owners/Pilot Projects**
  - NYISO's existing real-time telemetry requirements specify the use of a private, dedicated communication circuit
  - NYISO anticipates this alternative networking option using public internet for real-time telemetry will reduce setup time and operational cost for both NYISO, Transmission Owners and Pilot Participants

# Anticipated Project Timeline

2018				2019											
SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
PILOT 1	PILOT 1	PILOT 1	PILOT 1	PILOT 1	PILOT 1	PILOT 1	PILOT 1								
				PILOT 2	PILOT 2	PILOT 2	PILOT 2	PILOT 2	PILOT 2	PILOT 2	PILOT 2	PILOT 2			
											PILOT 3	PILOT 3	PILOT 3	PILOT 3	PILOT 3

- Lighter green = setup and configuration
- Darker green = start of demonstration

# Next Steps

- NYISO is currently in the Final Review Process which includes evaluating the facility interconnection and other details, discussion of program expectations and formalizing the pilot plan
- NYISO will announce at later MIWGs when a pilot is formally accepted into the program and have executed NYISO's Pilot Participation Agreement

# Feedback?

Email additional feedback to: [pilots@nyiso.com](mailto:pilots@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



[www.nyiso.com](http://www.nyiso.com)