

# Pilot Program Framework Proposal

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# Overview

- **NYISO is developing a pilot program as a means to investigate the ability of DER to participate in the wholesale markets**
  - Pilot projects will only test DER at this time; may be used in the future to test other resource types or concepts
- **DER pilot projects provide the opportunity to:**
  - Gain hands-on experience coordinating with the Utility/DSP and DER Coordination Entity prior to full market implementation
  - Understand the capabilities of emerging technologies being used as DER resources or to enable DER integration
- **Implementing the pilot program will require limited tariff revisions**

# Overview

- **NYISO will use pilot projects to:**
  - Determine DER operational capabilities
  - Study metering and telemetry protocols for individual DER and aggregations
  - Evaluate communications protocols between NYISO, Utilities, and DER Coordination Entity
- **Benefits of being a pilot participant**
  - Engage and exercise capability of pilot resources to respond to ISO instructions
  - Hands-on experience coordinating DER dispatch with ISO and Utility
  - Opportunity to test technologies and solutions

# Program Goals

- **Build operational experience prior to full integration of DER in wholesale markets**
  - Assess performance of DER aggregations
  - Evaluate the impact of integrating DER aggregations into NYISO software (e.g. modeling, dispatch, operation, settlement)
- **Develop effective coordination**
  - Establish coordination processes and procedures between NYISO, Utilities, and DER aggregators
- **Optimize DER market design**
  - Further identify and evaluate barriers to entry of DER
  - Understand the capabilities of DER and DER aggregations
  - Final market design may not reflect pilot program design

# Terms

- **DER – Distributed Energy Resource**
  - A resource or set of resources – *typically located on an end-use customer’s premises and operated for the purpose of supplying customer electric load* – that seeks to provide NYISO wholesale market services
- **DCE – DER Coordination Entity**
  - Interface between individual DER and NYISO
- **DCEA – DCE Aggregation**
  - Pilot projects can have aggregations of 2 or more individual DER
  - The aggregation will be the “resource” the NYISO works with to test DER concepts

# Pilot Program Framework

- **Program participation will be limited to a maximum of 50 MW state-wide at any one time**
- **Program participation limited to 3-5 individual projects at any one time**
  - Will consider adjusting this limit as appropriate based on staffing requirements and other factors
- **Individual pilot projects may not exceed 10 MW of capability**
- **Pilot project participation will not exceed 10 MW at a single transmission node**
  - Limitation will minimize market and operational impacts at the node
- **Individual pilot projects will operate for 1-12 months**
  - NYISO will have discretion to extend an individual project to meet program objectives
  - NYISO will also have discretion to terminate a project before anticipated end date

# Program Framework (cont'd)

- **Pilot program will be administered through a test environment and not in production environment**
  - Allows NYISO to test various pilot project attributes under appropriate operational and market conditions
  - Minimizes operational and market effects of pilot project operations
  - Eases coordination of operating instructions with utilities and DCEs
  - Permits testing of pilot projects without requiring all NYISO registration and tariff requirements applicable to Market Participants
- **Pilot projects will not be compensated by the NYISO**
  - NYISO will not pay pilot project participants for any energy injections, load reductions, or ancillary services
  - Program participants are required to fully fund their participation for the duration of the project

# Pilot Project Eligibility

- **Minimum eligibility criteria**
  - DCEA must be at least 100 kW if demonstrating energy only and 1 MW if demonstrating regulation or reserves
  - Pilot project must be able to provide energy and/or ancillary services for the duration of the test period
  - Pilot project must have completed interconnection study with local utility, if applicable
  - The pilot project must be fully funded
- **DCE will not be required to be a NYISO Market Participant**
- **Aggregations participating in the NYISO's existing demand response programs are eligible to be pilot projects**
  - NYISO will work with DCE to ensure that pilot project activity does not interfere with demand response obligations
  - NYISO is evaluating whether wholesale market Generators providing energy and/or ancillary service can also participate in pilot program



# NYISO Objectives

- To achieve pilot program goals, the NYISO will test and assess the ability of DCEA to fully participate in the wholesale markets
- **Specific test objectives include:**
  - Assess the capability of homogeneous and heterogeneous DCEAs to provide energy and ancillary services and the associated benefits to the wholesale markets
  - Develop forecasting concepts for DCEAs with intermittent generation
  - Determine appropriate DCEA unit commitment bid parameters and assess whether DCEAs should be dispatch-only units
  - Develop and evaluate DER resource and DCEA measurement and verification requirements
  - Evaluate statistical sampling methodologies for DCEA that are comprised only of demand response resources
  - Establish and evaluate operational coordination protocols between NYISO, utilities, DCE, and DER
  - Establish and evaluate resource and aggregation registration processes

# Pilot Project Application & Selection Criteria

- **NYISO anticipates opening an application period for the initial set of pilot projects in Q4 2017**
  - Application forms will be available on NYISO website after FERC acceptance of tariff revisions
  - NYISO will open subsequent application periods as appropriate once the initial pilot projects conclude
- **NYISO anticipates initial set of pilot projects will be selected by Q2 2018**
  - Projects will begin as soon as practicable after selection
- **NYISO is currently developing criteria it will use to select individual pilot projects, and will likely include an applicant's :**
  - Ability to meet NYISO objectives and alignment with REV goals
  - Technology maturity
  - Testing availability (*i.e.*, whether the project has other wholesale market or retail program commitments)
  - DCE's operational experience in DER deployment
  - Measurement and verification infrastructure
  - Ease of implementation

# Next Steps

- **May or June MIWG**
  - Review pilot selection criteria and review process
  - Provide details on pilot implementation and program management
- **Propose tariff revisions to implement Pilot Program**

# Feedback?

- Email additional feedback to:  
[DER\\_Feedback@nyiso.com](mailto:DER_Feedback@nyiso.com)

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