

Reliability and Market Considerations for a Grid in Transition

Discussion Kickoff

Emily Conway

ASSOCIATE MARKET DESIGN SPECIALIST, CAPACITY MARKET DESIGN

Ashley Ferrer

MARKET DESIGN SPECIALIST, ENERGY MARKET DESIGN

ICAPWG/MIWG

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Agenda

- Background
- Discussion of Process
- Timeline

Background

A Grid in Transition

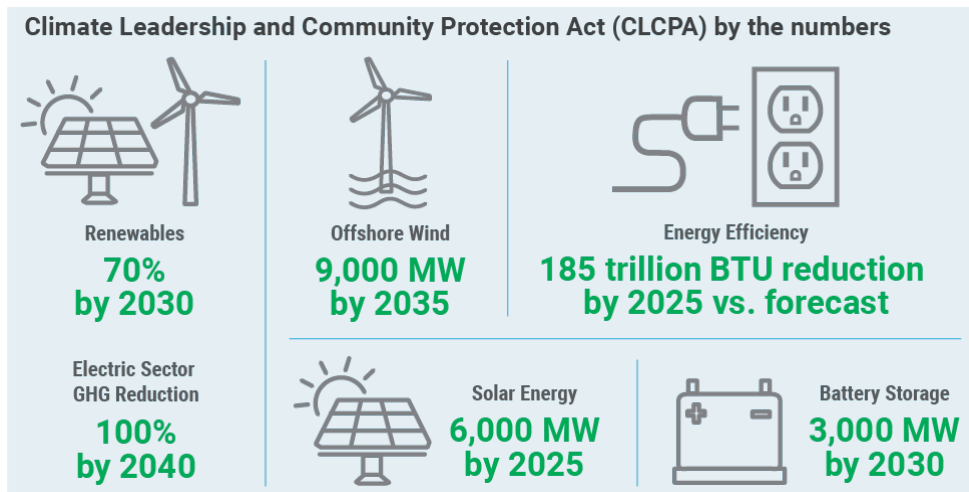
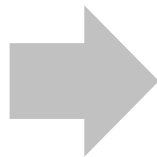
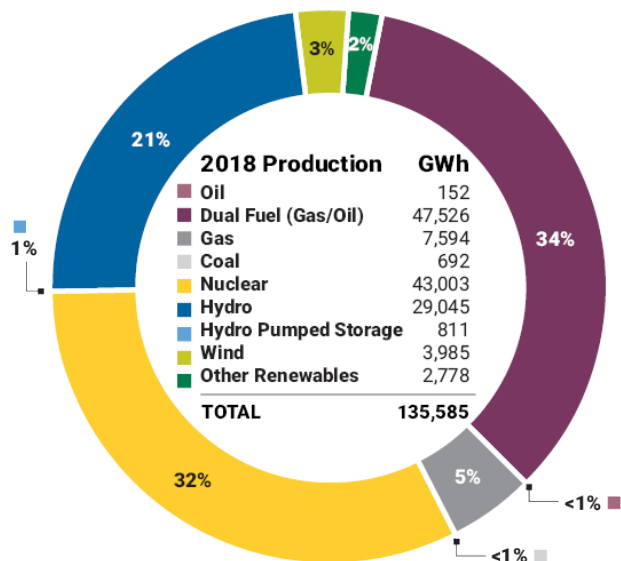
- The NYISO's competitive wholesale markets provide a framework for a changing grid
- The NYISO's Grid in Transition Report:
 - Describes emerging reliability and economic challenges facing New York's electricity sector
 - Identifies gaps to address
 - Proposes a path forward



The Reliability and Market Considerations for a Grid in Transition report was published on December 20, 2019, and can be viewed here: <https://www.nyiso.com/documents/20142/2224547/Reliability-and-Market-Considerations-for-a-Grid-in-Transition-20191220%20Final.pdf/61a69b2e-0ca3-f18c-cc39-88a793469d50>

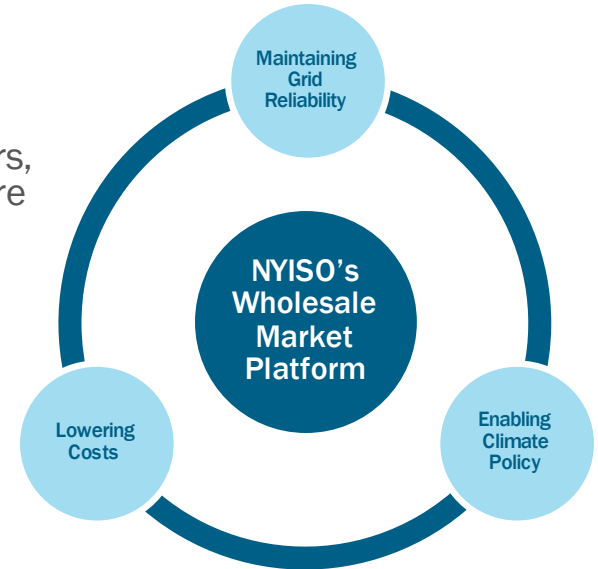
A Grid in Transition - Clean Energy Goals

- New York's clean energy goals are reshaping the grid.



A Grid in Transition – Path Forward

- **The NYISO’s wholesale markets can serve as an effective platform for achieving New York State environmental objectives.**
 - Through active engagement with stakeholders and policymakers, the NYISO is developing design improvements to meet the future challenges expected to arise with high levels of intermittent renewable and distributed energy resources.
- **The plan includes a set of market design enhancements that work together coherently and efficiently to satisfy New York’s changing grid reliability needs.**
 - Nine areas of market design opportunities across three main points of focus (discussed on the next slide) require immediate attention and are recommended for implementation in the next five years, through 2024.



A Grid in Transition – The Plan

- Carbon Pricing
- Comprehensive Mitigation Review
- DER Participation Model
- Energy Storage Participation Model

Aligning Competitive Markets and New York State Clean Energy Objectives



- Enhancing Energy & Shortage Pricing
 - Ancillary Services Shortage Pricing
 - Constraint Specific Transmission Shortage Pricing
 - Enhanced Fast Start Pricing
- Review Energy & Ancillary Services Product Design
 - More Granular Operating Reserves
 - Reserve Enhancements for Constrained Areas
 - Reserves for Resource Flexibility

Valuing Resource & Grid Flexibility



- Enhancements to Resource Adequacy Models
- Revise Resource Capacity Ratings to Reflect Reliability Contribution
 - Expanding Capacity Eligibility
 - Tailored Availability Metric
- Capacity Demand Curve Adjustments

Improving Capacity Market Valuation



Background

- In response to stakeholder requests to continue the discussion of topics in the Grid in Transition report, the NYISO will be conducting a series of stakeholder discussions throughout 2020
 - The NYISO will provide a forum to address individual topics, allowing stakeholders to provide their perspectives, including presentations that describe the concern and potential solutions
- The objective of this project is to solicit a variety of stakeholder feedback on key market design issues that may be impacted by New York State's clean energy mandates and objectives
- The most recent version of the Reliability and Market Considerations for a Grid in Transition report was published on December 20, 2019, and can be viewed here: <https://www.nyiso.com/documents/20142/2224547/Reliability-and-Market-Considerations-for-a-Grid-in-Transition-20191220%20Final.pdf/61a69b2e-0ca3-f18c-cc39-88a793469d50>

Discussion of Process

Discussion of Process

- **Based on stakeholder feedback, the NYISO is proposing the following discussion topics:**
 - Energy Market Enhancements
 - Capacity Market Enhancements
 - Reliability and Market Considerations
 - Interregional Coordination
 - Future of Fossil Generation
 - Implications of a Carbon Neutral Grid
- **Representative questions for each subject area identified above can be found in *2020 Project Candidates – MP Market Product Descriptions*, available with the 9/9/2019 BPWG meeting materials**
 - Additional topics could be added at the request of stakeholders

Discussion of Process

- **The format of these discussions will be as follows:**
 - A discussion will be scheduled approximately once a month during ICAPWG/MIWG
 - The NYISO will kickoff the discussion of the specific topic
 - Stakeholders will then have the opportunity to present
- **Stakeholders will be required to notify the NYISO 10 business days prior to the working group date if they would like to present along with a brief outline of the key topics they wish to discuss**
 - Stakeholders will be required to submit materials for NYISO review 6 business days prior to the working group meeting
 - Materials will be posted 3 business days prior to the working group meeting, consistent with existing procedures

Timeline

Timeline: January – June 2020

Topic	Working Group Date	Stakeholders Notify NYISO of Request to Present	Materials Due to NYISO	Materials Posted
Energy Market Enhancements	2/4/2020	1/21/2020	1/27/2020	1/30/2020
Capacity Market Enhancements	3/6/2020	2/21/2020	2/27/2020	3/3/2020
Reliability and Market Considerations	3/26/2020	3/12/2020	3/18/2020	3/23/2020
Interregional Coordination	5/11/2020	4/27/2020	5/1/2020	5/6/2020
Future of Fossil Generation, Implications of a Carbon Neutral Grid	June 2020	TBD	TBD	TBD

Questions?

Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit 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 policymakers, stakeholders and investors in the power system

