Market Assessment with 50% Renewable Generation

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Market Issues Working Group

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Previous Presentations

Date	Working Group	Discussion points and links to materials
9-12-16	Budget & Priorities Working Group (BPWG)	Presentation of stakeholder feedback, proposed scope of the project
10-19-16	Market Issues Working Group (MIWG)	Presentation providing more <u>detail on the scope and timeline</u> of the project
11-22-16	Market Issues Working Group (MIWG)	Presentation updating project status
1-31-17	Market Issues Working Group (MIWG)	Integrating Public Policy Update (Phases 1 and 2)
2-16-17	Market Issues Working Group (MIWG)	Phase 2: Study Description and Assumptions Review
3-28-17	Market Issues Working Group (MIWG)	Phase 2: Study Description and Assumption Update
4-24-17	Market Issues Working Group (MIWG)	Phase 2: Preliminary DAM Results
6-21-17	Market Issues Working Group (MIWG)	Phase 2: Real-time Study Description and Assumptions
7-13-17	ICAP Working Group (ICAP WG)	The ICAP Market - Preliminary Findings (Phase 2)
8-22-17	ICAP Working Group (ICAP WG)	IPP Phase 2 Capacity Market Results and background information
8-25-17	Market Issues Working Group (MIWG)	IPP Phase 2: Simulation Progress
9-25-17	Market Issues Working Group (MIWG)	IPP Phase 2: RT Energy Market Simulation Results
10-3-17	Market Issues Working Group (MIWG)	Presentation discussing market assessment paper

Integrating Public Policy Project

The Brattle Group Work

NYISO Work

Carbon Pricing:

Study whether incorporating a state policy defined cost of carbon in the wholesale market would improve the overall efficiency of the NYISO energy and capacity markets

Market Impact Assessment of 50% Renewable Generation:

Study the impacts of decarbonization goals on the current NYISO energy and capacity markets from the high penetration of low carbon or carbon-free resources

Market Structure Assessment of 50% Renewable Generation:

Study whether other market products or changes to the existing market structure will be necessary to meet the anticipated reliability needs



Market Products/ Changes to the Existing Market Structure

The NYISO is considering a broad spectrum of market product and/or structure enhancements that may be necessary to incent market participants to meet the reliability needs anticipated as a result of NYS policy to adopt 50% renewable generation by 2030.



Market Products/ Changes to the Existing Market Structure

- Concepts for new energy market products:
 - 1. Separate products for regulation up and regulation down
 - 2. Ramping product to cover forecast error
- Energy market products or rules that could be modified or enhanced:
 - 1. Revisions to offline fast start pricing
 - 2. More dynamic ancillary service requirements and shortage pricing levels



Market Products/ Changes to the Existing Market Structure

- Capacity market products or rules that could be modified or enhanced:
 - DA bidding obligations
 - Output duration requirements
 - Initial performance factors for new resources



Market Structure Assessment Process

- The NYISO requests <u>your</u> thoughts and feedback on specific market design ideas that would support the market goals of maintaining reliable electric service at the lowest cost to customers.
 - Presentations from Market Participants are encouraged at the November 2, 2017 MIWG meeting.
- Please submit ideas to IPP_feedback@nyiso.com by November 2, 2017.
 - All submissions will be posted on the NYISO's website.
- Promising market concept ideas will be further developed in 2018 as part of the continuation of the Integration Public Policy project.



Next Steps

- Email ideas to: lPP_feedback@nyiso.com
 - All submissions will be posted on the NYISO website.
- November 2, 2017 Further discussion of potential concepts and ideas.
 - Contact Mike DeSocio (<u>mdesocio@nyiso.com</u>) or Debbie Eckels (<u>deckels@nyiso.com</u>) if you would like to present your ideas at the November 2, 2017 MIWG.
- December Release Market Assessment Whitepaper
- December 20, 2017 Discuss Market Assessment Whitepaper



Questions?

We are here to help. Let us know if we can add anything.



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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