

Consumer Impact Analysis: 2023 Project List

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Analysis Guidelines

- Anticipated net production cost impact of \$5 million or more per year;
- Expected consumer impact from changes in energy or capacity market prices is greater than \$50 million per year;
- Incorporates new technology into NYISO markets for first time;
- Allows or encourages a new type or category of market product;
or
- Creates a mechanism for out-of-market payments for reliability

Identification of 2023 Projects

■ Projects Identified in this Analysis

- Significant market design concepts identified in the 2023 project prioritization process

■ Additional Projects that May Be Analyzed

- FERC directives where the NYISO has implementation flexibility
- Emergent stakeholder issues

2023 Proposed Projects

- **Balancing Intermittency (SOM)**
- **LCR Optimizer Enhancements**
- **Long Mountain PAR Operating Protocol with ISO-NE**
- **Modeling Improvements for Capacity Accreditation (SOM)**

Balancing Intermittency (SOM)

- *Description:* A rapid transition is underway in New York State from a power grid where energy is largely produced by central-station fossil fuel generation, towards a grid with increased intermittent renewable resources and distributed generation. The NYISO is actively working on market enhancements to meet these future challenges. A grid characterized by high levels of intermittent renewable resources, Energy Storage Resources (ESR), and Distributed Energy Resources (DER) will require new thinking to adequately balance intermittency on the system and the associated system ramps. The 2022 Grid in Transition Study will identify the potential level of system flexibility that will be required with increases in intermittent resources and evaluate grid and/or resource attributes necessary to continue to reliably maintain system balance.
- *Expected Benefit:* This project will examine the existing NYISO market structures and market rules to help identify any changes or additions needed to maintain system reliability, while addressing the state's goals and mandates in a cost-effective way through the creation of proper market mechanisms.
- *Screen:* Emergent stakeholder issue

LCR Optimizer Enhancements

- *Description:* In 2017 and 2018, the NYISO worked with stakeholders to design and implement a proposal to set Locational Capacity Requirements (LCRs) based on both the Resource Adequacy criterion of maintaining a Loss of Load Expectation of no greater than one event-day in 10 years, as well as an economic cost minimization of those requirements based upon a set of Net Cost of New Entry (Net CONE) curves developed based upon the proxy technology underpinning the ICAP Demand Curve Reference Points. This effort, called the Alternative Methods for Determining LCRs, was intended to produce a robust, transparent, and intuitive process for maintaining reliability, while producing a lower cost solution in comparison to the previous method for developing LCRs, called the Tan 45 methodology. Since the new methodology was implemented, multiple concerns have been raised about the methodology and the resulting LCRs, about the stability of the LCRs and the transparency of the optimization function. Re-examining this process and the methodology could lead to improvements in the stability and transparency of the LCRs.
- *Expected Benefit:* This project will seek to further enhance the LCR methodology to improve stability and transparency of the LCRs.
- *Screen:* Emergent stakeholder issue

Long Mountain PAR Operating Protocol with ISO-NE

- ***Description:*** There is a planned PAR installation on the Long Mountain-Cricket Valley 345kV (#398) intertie between NYISO and ISO-NE by Q4 2023, which is an upgrade from the AC Public Policy Segment B project. The NYISO does not currently have an operating agreement with ISO-NE for this PAR. Tariff revisions will be required to incorporate the new device. Longer-term operational plans for this PAR could include setting up a market-to-market PAR coordination program with ISO-NE. The objective of this project is to develop an operating protocol with ISO-NE for the new Long Mountain PAR.
- ***Expected Benefit:*** With the addition of a PAR on the NYISO/ISO-NE seam, an operating agreement is necessary to guide PAR control actions that reduce the overall cost of congestion and maintain reliability.
- ***Screen:*** Allows or encourages a new type or category of market product

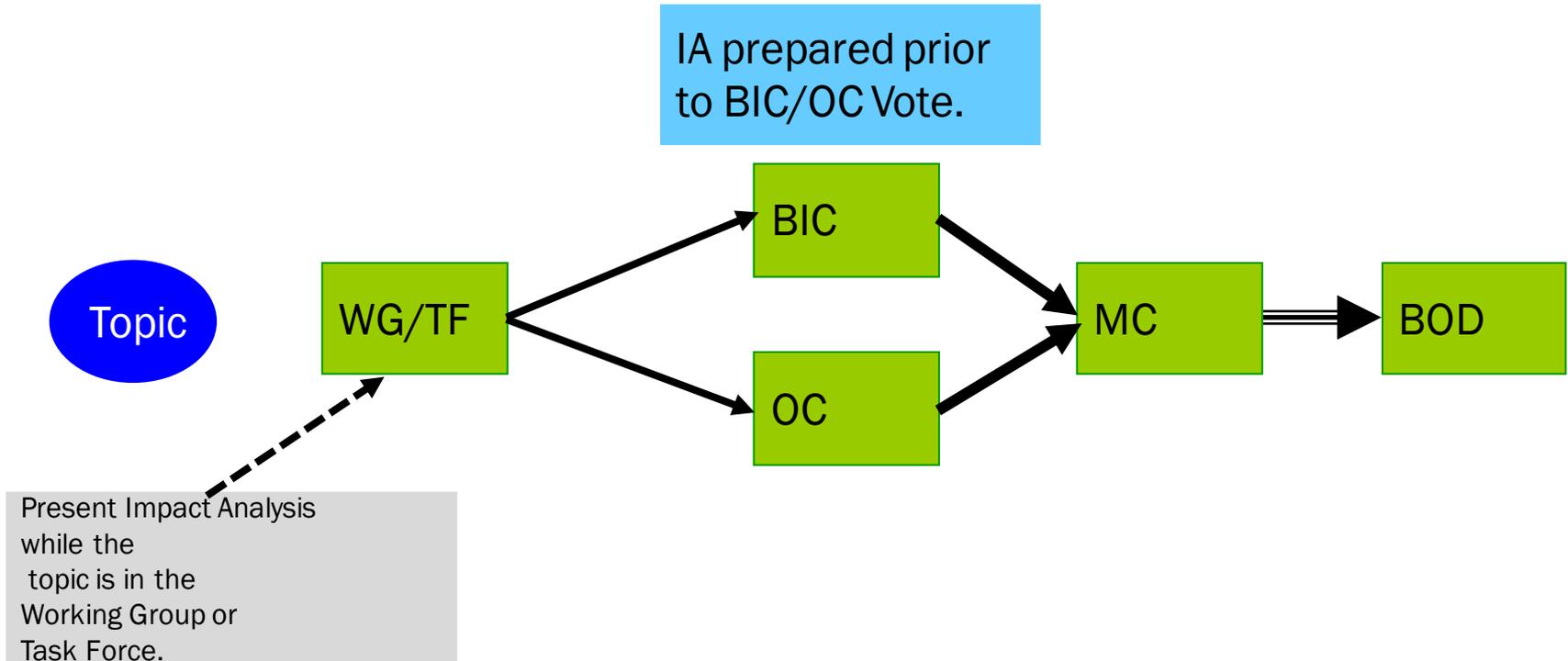
Modeling Improvements for Capacity Accreditation (SOM)

- *Description:* As part of the Improving Capacity Accreditation project discussed in 2021 and 2022, limitations in the NYISO's current resource adequacy analysis software (GE MARS) have been identified on modeling and accounting for attributes, such as correlated fuel unavailability for non-renewable resources or resources with long start up notifications. Resolving these limitations would enable more accurate calculations of the Resource Adequacy requirements needed to maintain reliability as well as the value of resources in meeting Resource Adequacy requirements. The 2023 effort will examine methodologies and enhancements to GE MARS and the inputs to the Installed Reserve Margin and LCR database to model additional risk factors in the Resource Adequacy assessments and Capacity Accreditation calculations.
- *Expected Benefit:* This is a continuation of the work started with the Improving Capacity Accreditation project and will facilitate both the establishment of Installed Capacity Market Reserve Margins reflecting reliability risks not currently modeled by GE MARS as well as improved Capacity Market Accreditation Factors for resources with these operating characteristics.
- *Screen:* Allows or encourages a new type or category of market product

Impact Analysis - Process Map

NYISO SHARED GOVERNANCE PROCESS

IA prepared prior to BIC/OC Vote.



Feedback?

Email additional feedback to:
deckels@nyiso.com

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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