

# 2023 Market Projects Cost, NYISO Score, Project Constraints & Stakeholder Survey

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**Budget and Priorities Working Group**

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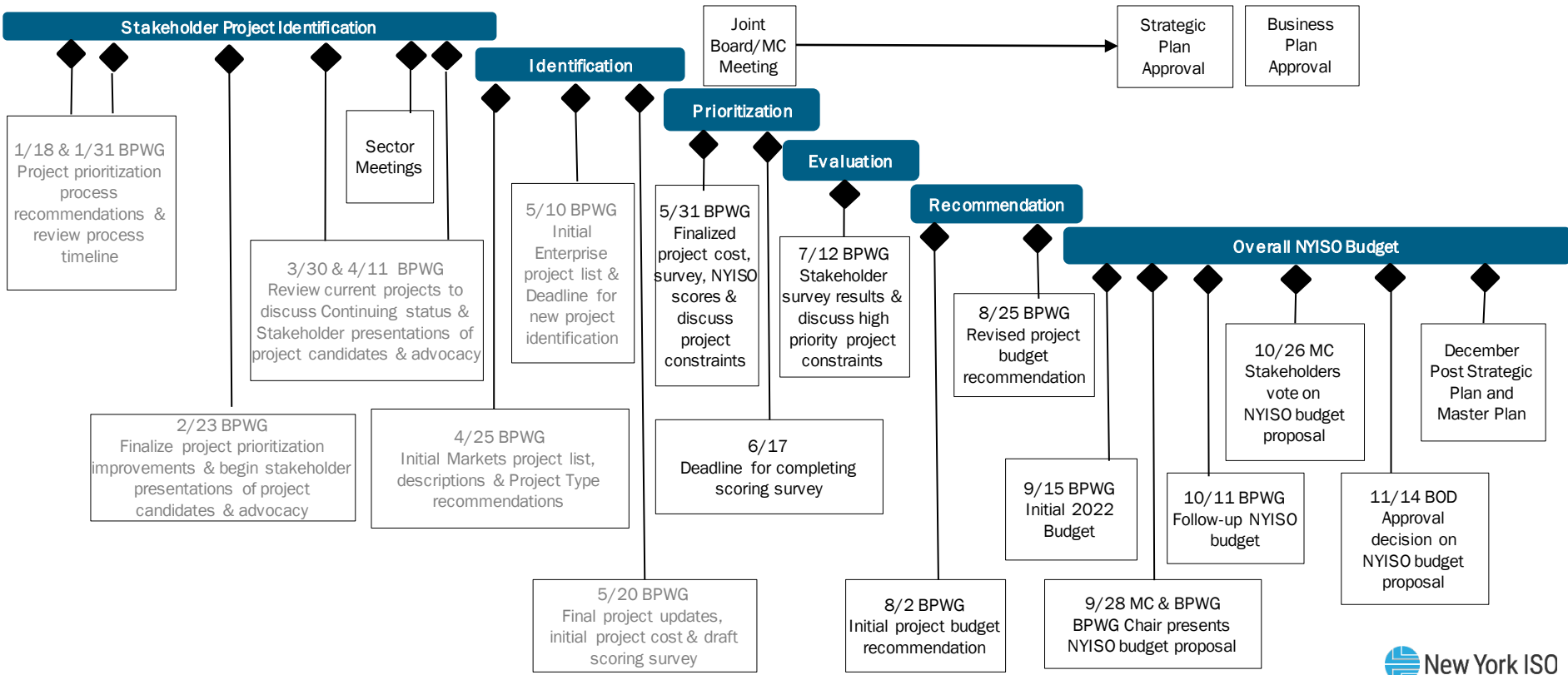
# Agenda

- **Project Prioritization Timeline**
- **Stakeholder Survey**
- **Project Descriptions**
- **2023 Market Project Candidates**
- **NYISO Scores & High Priority Project Constraints**
- **Next Steps**

# Project Prioritization Timeline

# 2023 Proposed Project Prioritization Timeline

Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	Jul 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022
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# Stakeholder Survey

# Stakeholder Scoring

- **Registered shared governance organizations including non-voting participants and affiliates will have an opportunity to score proposed Market projects in a stakeholder survey**
  - Only Market projects of type Prioritize are included in survey
  - Proposed Enterprise projects are not included in the stakeholder survey
- **Each organization may provide one survey response with 100 points available to assign to projects based on their priorities**
- **There is a comment section after each project as well as at the end of survey to supplement scoring information**
- **All survey results are public, including identifying organization that provided the scoring and any comments**

# Stakeholder Scoring Survey

- **A draft of the survey and contacts to receive survey are included with today's BPWG materials for review**
  - Designated alternative contacts to receive the survey link are shown in red
  - Contact Brian Hurysz or Member Relations for any survey related issues including any changes to contact survey is being sent to
- **Each organization will be provided a unique link to access their survey that will be included in email sent to the MC representative**
- **MC representative can provide others the ability to access survey by sharing the link**
- **Anyone with survey link can submit the survey**
- **Once submitted, the link will no longer provide access the survey**
  - The survey link can be reset if there is a need to revise after submission

# Stakeholder Scoring Survey Timeline

- All project cost information to be posted with May 31<sup>st</sup> BPWG materials
- Official survey will be distributed May 31<sup>st</sup> after BPWG
  - If last minute updates to survey are made at May 31<sup>st</sup> BPWG, this may delay the survey distribution
- Deadline for completing stakeholder survey is June 17<sup>th</sup>
- Survey results and high-priority project constraints to be reviewed and discussed at the July 12<sup>th</sup> BPWG



# Project Descriptions

# Project Descriptions

- **The NYISO has developed project descriptions for 43 proposed Market projects**
  - 1 Business & Finance, 9 Capacity Market, 6 New Resource, 23 Energy Markets, 2 Planning & 2 TCC Market
  - 6 Mandatory, 3 Continuing, 24 Prioritize & 10 Future
- **Last year, there were 30 prioritized Market projects included in the stakeholder survey**
- **Project descriptions are included with today's posted meeting materials**

# 2023 Market Project Candidates

# Prioritize 2023 Market Projects

Item	Project	Product Area	Project Type	2023 Proposed Deliverable	2022 Deliverable	Estimated Cost (in millions)			
						Labor	Capital	Prof. Serv.	Total
1	5 Minute Transaction Scheduling	Energy Market	Prioritize	Market Design Concept Proposed		0.07	0.00	0.74	0.81
2	Advancing NYISO Transparency - Requested by DC Energy	Energy Market	Prioritize	Deployment		0.09	0.00	0.40	0.49
3	Balancing Intermittency (SOM)	Energy Market	Prioritize	Market Design Concept Proposed		0.07	0.00	0.15	0.22
4	Constraint Specific Transmission Shortage Pricing (SOM)	Energy Market	Prioritize	Deployment	Functional Requirements	0.20	0.00	0.65	0.85
5	Coordinated Grid Planning Process (CGPP) Support - Requested by New York TOs	Planning	Prioritize	Issue Discovery		0.04	0.00	0.00	0.04
6	CRIS Expiration Evaluation	Capacity Market	Prioritize	Functional Requirements	Market Design Complete	0.06	0.00	0.00	0.06
7	Dispatchability and Fast Response Product - Requested by NYPA	Energy Market	Prioritize	Market Design Concept Proposed		0.07	0.00	0.00	0.07

# Prioritize 2023 Market Projects

Item	Project	Product Area	Project Type	2023 Proposed Deliverable	2022 Deliverable	Estimated Cost (in millions)			
						Labor	Capital	Prof. Serv.	Total
8	Dynamic Reserves (SOM)	Energy Market	Prioritize	Market Design Complete	Market Design Concept Proposed	0.12	0.00	1.00	1.12
9	Emissions Transparency (Requested by Stakeholders)	Energy Market	Prioritize	Functional Requirements		0.11	0.00	0.08	0.19
10	Engaging the Demand Side	New Resource	Prioritize	Issue Discovery		0.13	0.00	0.00	0.13
11	Enhancing Fuel and Energy Security Refresh Study	Energy Market	Prioritize	Study Complete		0.07	0.00	0.45	0.52
12	Evolving Financial Transaction Capabilities - Bilateral Transactions Requested by NY-Best and Bayonne Energy Center	Energy Market	Prioritize	Software Design		0.11	0.00	0.00	0.11
13	Hybrid Aggregation Model	New Resource	Prioritize	Software Design	Functional Requirements	0.48	0.00	0.22	0.70
14	Improve Duct-Firing Modeling (SOM)	Energy Market	Prioritize	Market Design Complete	Market Design Concept Proposed	0.07	0.00	0.60	0.67

# Prioritize 2023 Market Projects

Item	Project	Product Area	Project Type	2023 Proposed Deliverable	2022 Deliverable	Estimated Cost (in millions)			
						Labor	Capital	Prof. Serv.	Total
15	Interconnection Process Enhancements - Requested by ACE-NY	Planning	Prioritize	Market Design Complete		0.08	0.00	0.00	0.08
16	LCR Optimizer Enhancements	Capacity Market	Prioritize	Market Design Complete		0.15	0.00	0.30	0.45
17	M2M West PARs	Energy Market	Prioritize	Market Design Concept Proposed		0.05	0.00	0.00	0.05
18	Meter Data Management Modernization	Business & Finance	Prioritize	Deployment		0.19	0.00	0.00	0.19
19	Mitigation Threshold Review	Energy Market	Prioritize	Market Design Concept Proposed		0.03	0.00	0.00	0.03
20	Multi-Level References	Energy Market	Prioritize	Software Design		0.09	0.00	0.10	0.19
21	Reserving Capacity for TCC Balance-of-Period (BOP) Auctions	TCC	Prioritize	Software Design		0.15	0.00	0.00	0.15

# Prioritize 2023 Market Projects

Estimated Cost (in millions)

Item	Project	Product Area	Project Type	2023 Proposed Deliverable	2022 Deliverable	Labor	Capital	Prof. Serv.	Total
22	Review of Real-Time Market Structure (SOM)	Energy Market	Prioritize	Issue Discovery		0.10	0.00	0.05	0.15
23	Storage as Transmission - Requested by Stakeholders	New Resource	Prioritize	Market Design Concept Proposed		0.31	0.00	0.25	0.56
24	Time Differentiated TCCs	TCC	Prioritize	Market Design Complete		0.11	0.00	0.20	0.31

# Mandatory 2023 Market Projects

Item	Project	Product Area	Project Type	2023 Proposed Deliverable	2022 Deliverable	Estimated Cost (in millions)			
						Labor	Capital	Prof. Serv.	Total
25	Ambient Adjusted Transmission Lines Rating	Energy Market	Mandatory	Functional Requirements		0.11	0.00	0.00	0.11
26	Demand Curve Reset	Capacity Market	Mandatory	Study Defined		0.18	0.00	0.50	0.68
27	DER Participation Model	New Resource	Mandatory	Deployment	Deployment	0.46	0.00	0.30	0.76
28	FERC Order 2222 Compliance	New Resource	Mandatory	Functional Requirements		0.50	0.00	0.25	0.75
29	Long Mountain PAR Operating Protocol with ISO-NE	Energy Market	Mandatory	Market Design Complete		0.05	0.00	0.00	0.05
30	Modeling Improvements for Capacity Accreditation (SOM)	Capacity Market	Mandatory	Functional Requirements		0.30	0.00	0.50	0.80



# Continuing 2023 Market Projects

Item	Project	Product Area	Project Type	2023 Proposed Deliverable	2022 Deliverable	Estimated Cost (in millions)			
						Labor	Capital	Prof. Serv.	Total
31	CRIS Tracking	Capacity Market	Continuing	Deployment	Development Complete	0.19	0.00	0.10	0.29
32	Improving Capacity Accreditation (SOM)	Capacity Market	Continuing	Deployment	Market Design Complete	0.74	0.00	0.15	0.89
33	Internal Controllable Lines	New Resource	Continuing	Market Design Complete	Market Design Concept Proposed	0.21	0.00	0.25	0.46

# Future 2023 Market Projects

Item	Project	Product Area	Project Type	2023 Proposed Deliverable	2022 Deliverable	Estimated Cost (in millions)			
						Labor	Capital	Prof. Serv.	Total
34	Capacity Transfer Rights for Internal Transmission Upgrades (SOM)	Capacity Market	Future						
36	Eliminate Fees for CTS Transactions with PJM (SOM)	Energy Market	Future						
37	Eliminate Offline GT Pricing (SOM)	Energy Market	Future						
38	Locational Marginal Pricing of Capacity (SOM)	Capacity Market	Future						
39	Long Island PAR Optimization and Financial Rights (SOM)	Energy Market	Future						
40	Long Island Reserve Constraint Pricing (SOM)	Energy Market	Future						
41	Monthly Demand Curves (SOM)	Capacity Market	Future						

# Future 2023 Market Projects

Item	Project	Product Area	Project Type	2023 Proposed Deliverable	2022 Deliverable
42	More Granular Operating Reserves (SOM)	Energy Market	Future		
43	Separating Up and Down Regulation Service	Energy Market	Future		

# NYISO Scores & High Priority Project Constraints

# NYISO Scores

Project	Product Area	Strategy	Operational or Market Issue	Cost & Complexity	Score (1-100)	Rank
		4	4	2		
Balancing Intermittency (SOM)	Energy Market	8	6	7	70	1
Interconnection Process Enhancements - Requested by ACE-NY	Planning	8	6	5	66	2
LCR Optimizer Enhancements	Capacity Market	7	7	5	66	2
Coordinated Grid Planning Process (CGPP) Support - Requested by New York TOs	Planning	7	5	7	62	4
Dynamic Reserves (SOM)	Energy Market	8	7	1	62	4
Enhancing Fuel and Energy Security Refresh Study	Energy Market	8	5	5	62	4

# NYISO Scores

Project	Product Area	Strategy	Operational or Market Issue	Cost & Complexity	Score (1-100)	Rank
Constraint Specific Transmission Shortage Pricing (SOM)	Energy Market	4	4	2	58	7
Hybrid Aggregation Model	New Resource	7	6	3	58	7
Improve Duct-Firing Modeling (SOM)	Energy Market	7	6	3	58	7
Emissions Transparency (Requested by Stakeholders)	Energy Market	7	4	6	56	10
Evolving Financial Transaction Capabilities - Bilateral Transactions - Requested by NY-Best and Bayonne Energy Center	Energy Market	6	4	8	56	10
CRIS Expiration Evaluation	Capacity Market	5	4	9	54	12
Engaging the Demand Side	New Resource	7	5	3	54	12

# NYISO Scores

Project	Product Area	Strategy	Operational or Market Issue	Cost & Complexity	Score (1-100)	Rank
5 Minute Transaction Scheduling	Energy Market	4	4	2	48	14
Time Differentiated TCCs	TCC	6	4	4	48	14
Meter Data Management Modernization	Business & Finance	5	4	5	46	16
Review of Real-Time Market Structure (SOM)	Energy Market	7	4	0	44	17
Mitigation Threshold Review	Energy Market	3	4	7	42	18

# NYISO Scores

Project	Product Area	Strategy	Operational or Market Issue	Cost & Complexity	Score (1-100)	Rank
		4	4	2		
Advancing NYISO Transparency - Requested by DC Energy	Energy Market	4	3	6	40	19
Dispatchability and Fast Response Product - Requested by NYPA	Energy Market	3	3	8	40	19
Reserving Capacity for TCC Balance-of-Period (BOP) Auctions	TCC	3	5	1	34	21
Multi-Level References	Energy Market	3	3	3	30	22
Storage as Transmission - Requested by Stakeholders	New Resource	4	2	3	30	22
M2M West PARs	Energy Market	2	3	3	26	24



# High Priority Project Constraints

- **New Resource Team**
  - Resource constraints start to show up with Hybrid Aggregation Model
- **Energy Market Team**
  - Resource constraints start to show up with Improve Duct-Firing Modeling (SOM)
- **Capacity Market Team**
  - Resource constraints start to show up with CRIS Expiration Evaluation
- **Engaging the Demand Side and lower-ranked projects do not appear supportable based on our initial analysis**
- **The NYISO is continuing to evaluate these resource constraints and looks forward to more insights from the Stakeholder Survey**

# Next Steps

# Next Steps

- **Deadline for completing scoring survey will be June 17<sup>th</sup>**
- **Contact Brian Hurysz or Member Relations for any survey related issues**
  - Send to Brian Hurysz at [bhurysz@nyiso.com](mailto:bhurysz@nyiso.com) or cell (518) 461-6405 for assistance
- **Stakeholder scoring and high priority project constraints results will be presented at the July 12<sup>th</sup> BPWG**

# Our Mission & Vision



## Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



## Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

# Questions?

# Appendix – Milestones and Project Prioritization Phases

# Milestone Definitions

Milestone	Definition
Issue Discovery	NYISO has facilitated education session(s) for stakeholder knowledge development of problem/issue, conducted stakeholder solicitation of potential solutions to address problem/issue, and summarized findings at a working group meeting for potential ranking and future project identification.
Study Defined	The scope of work for the study has been presented to stakeholders, including a discussion on the necessary input(s), assumption(s) and objective(s) of the study.
Study Complete	Scope of work to be performed has been completed; results and recommendations have been presented to the appropriate Business Owners and stakeholders.
Market Design Concept Proposed	NYISO has initiated or furthered discussions with stakeholders that explore potential concepts to address opportunities for market efficiency or administration improvements.
Market Design Complete	NYISO has developed with stakeholders a market design concept such that the proposal can be presented for a vote at the BIC or MC to define further action on the proposal.
Functional Requirements	NYISO has completed documentation of the functional requirements and the Business Owner has approved.
Architectural Design	The architectural design document is complete and software development is ready to begin.
<b>Projects with the following Milestones will generally be proposed as Continuing in future years, subject to Stakeholder input</b>	
Software Design	The software design document is complete and software development is ready to begin.
Development Complete	Development has been completed, packaged and approved by the Supervisor.
Deployment	Required software changes to support commitment have been integrated into the production environment.

# Project Prioritization Process

Phase	Description
Stakeholder Project Identification	Stakeholders may present project ideas at stakeholder meetings, sector meetings, get feedback and refine their proposal during this phase before the NYISO provides a comprehensive list of candidate projects for consideration.
Identification	The NYISO develops a Markets and Enterprise project candidate lists from regulatory obligations, strategic initiatives, State of the Market recommendations, infrastructure enhancements, product plans and stakeholder proposals. These are presented and further refined with stakeholder input during this phase.
Prioritization	This phase involves a stakeholder survey and the NYISO prioritization of projects. The stakeholder survey will facilitate an assessment of the relative priority of the topic within the portfolio and is used to determine stakeholder appeal. The NYISO prioritization incorporates the stakeholder appeal into objective criteria that reflects strategic alignment, expected outcomes, risks, and ability to execute in development of a priority score for each Market project.
Evaluation	This phase involves performing a feasibility assessment based on detailed cost and labor estimates, dependencies, priority scores, and stakeholder feedback.
Recommendation	This phase involves proposing a feasible set of project deliverables and related budget requirements. The proposal is refined as needed based on stakeholder feedback.



# Project Type

Project Type	Description
Mandatory	Strategic Initiatives and FERC Orders. These projects will be included in the budget
Continuing	Approved in a prior year and have progressed to either Software Design, Development Complete, or Deployment. Additional projects may be classified as Continuing based on stakeholder feedback. These projects will be included in the budget
Future	Consensus from stakeholder discussions of this projects priority relative to other projects has resulted in these projects NOT being prioritized and initiated in the coming budget year. Resources, time constraints, stakeholder feedback, and other project dependencies have been taken into consideration
Prioritize	Projects to be prioritized and included in the budget based on a feasibility assessment taking into consideration resources, time constraints, stakeholder feedback, priority score, and other project dependencies. Market projects are included in the stakeholder survey

# Project Category

Project Category	Description
Enterprise	Includes internal-facing technology and back office support projects that have no market rule changes. This list includes projects that may be noticeable to Market Participants. These projects are NOT included in the stakeholder survey
Market	Projects associated with market rule(s) including market design and study projects as well as any project implementing market rule changes. These projects are included in the stakeholder survey unless they are Mandatory, Continuing, or Future

# Project Scoring

Project Scoring	Description
NYISO Only	Enterprise projects that are not Mandatory, Continuing, or Future types are scored by the NYISO Only during the Prioritization phase. These projects are included in the budget based on a feasibility assessment taking into consideration resources, time constraints, priority score and other project dependencies.
Stakeholder Scored	Market projects that are not Mandatory, Continuing, or Future are included in the stakeholder survey and scored by the NYISO during the Prioritization phase. These projects are included in the budget based on a feasibility assessment taking into consideration resources, time constraints, stakeholder feedback, priority score, and other project dependencies.