

Proposed 2025 Market Projects

Kevin Pytel

Director, Product and Project Management

Budget and Priorities Working Group

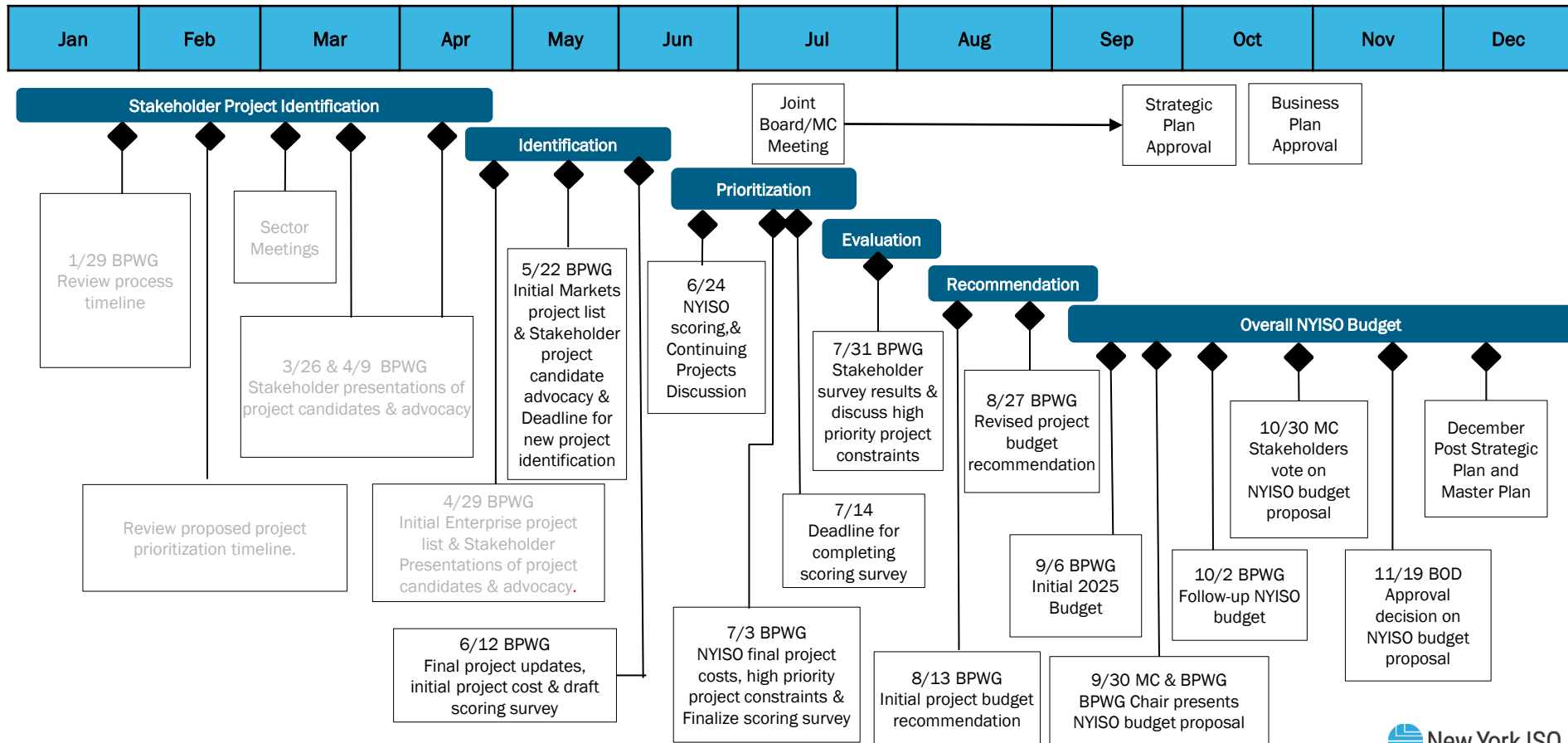
May 22, 2024, KCC

Agenda

- **Project Timeline**
- **Project Descriptions**
- **2025 Market Project Candidates/Project Type Recommendations**
- **Next Steps**

Project Prioritization Timeline

Project Prioritization Timeline



Project Descriptions

Project Descriptions

- **The NYISO has developed project descriptions for 53 proposed Market projects**
 - 1 Business & Finance, 13 Capacity Market, 10 New Resource, 23 Energy Markets, 4 Planning, & 2 TCC Market
 - 7 Mandatory, 8 Continuing, 29 Prioritize, & 9 Future
- **Last year, there were 50 proposed Market projects at this time in the project prioritization process**
- **Project descriptions are included with today's posted meeting materials**

Market Project Descriptions

■ Problem / Opportunity

- This section describes the business problem to be addressed or opportunity to be studied by the proposed project. Supporting background information, prior work, and analysis to the extent it is available should be included.

■ Project Objective(s) & Anticipated Deliverable(s)

- This section describes what the project should do to address the business problem or opportunity. It summarizes the approach and desired outcome and may build on project work in a prior year. It includes the expected deliverables to satisfy the project objective and is tied to the proposed project milestone. The NYISO will work with the stakeholder(s) proposing a project to formulate what may be feasibly delivered in a particular time frame based on resourcing estimated for the effort.

■ Project Justification

- This section provides reason(s) why the candidate project should be considered. Examples would include addressing a FERC Order, Tariff requirements, automate manual processes, mitigate risk, market enhancements, State of the Market recommendations.

2025 Market Project Candidates and Project Type Recommendations

Prioritize 2025 Market Projects

Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable
1	5 Minute Transaction Scheduling	Energy Market	Prioritize	Market Design Complete	Market Design Concept Proposed
2	Advanced Storage Tools	New Resource	Prioritize	Market Design Complete	
3	Advancing NYISO Transparency - Requested by DC Energy	Energy Market	Prioritize	Deployment	
4	Ancillary Service Shortage Pricing Update	Energy Market	Prioritize	Study Complete	
5	Balancing Intermittency	Energy Market	Prioritize	Deployment	Market Design Complete
6	Billing Organization Portfolios for Reporting (Previously SubAccounts)	Business & Finance	Prioritize	Deployment	Market Design Complete
7	Clean Hydrogen - Requested by NextEra and Constellation	New Resource	Prioritize	Market Design Complete	

Prioritize 2025 Market Projects

Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable
8	Cost Recovery for NYISO-Designated IROL Critical Generators - Requested by Advanced Power	Energy Market	Prioritize	Market Design Complete	
9	Demand Curve Reset Process Evaluation	Capacity Market	Prioritize	Issue Discovery	
10	Demand Curve WSR Revisions (SOM)	Capacity Market	Prioritize	Market Design Concept Proposed	
11	Eliminate Offline GT Pricing	Energy Market	Prioritize	Functional Requirements	
12	Engaging the Demand Side	New Resource	Prioritize	Market Design Complete	Market Design Concept Proposed
13	Engaging the Demand Side Phase 2	New Resource	Prioritize	Study Defined	
14	Granular Capacity Market Pricing	Capacity Market	Prioritize	Study Defined	Issue Discovery

Prioritize 2025 Market Projects

Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable
15	Improved Small Customer Enrollment in DRIS - Requested by OhmConnect	New Resource	Prioritize	Market Design Complete	
16	Market Purchase Hub Transactions – Requested by LIPA	Energy Market	Prioritize	Functional Requirements	Market Design Concept Proposed
17	Mitigation Threshold Review	Energy Market	Prioritize	Market Design Concept Proposed	
18	Operating Reserves Performance	Energy Market	Prioritize	Software Design	Market Design Concept Proposed
19	Pivotal Supplier Calculation Change	Capacity Market	Prioritize	Market Design Concept Proposed	
20	Reference Level Software Cleanup	Energy Market	Prioritize	Deployment	
21	Reserving Capacity for TCC Balance-of-Period (BOP) Auctions	TCC	Prioritize	Software Design	

Prioritize 2025 Market Projects

Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable
22	Review of Control Area System Resources	Capacity Market	Prioritize	Market Design Concept Proposed	
23	Review of Real-Time Market Structure	Energy Market	Prioritize	Issue Discovery	
24	Storage as Transmission	New Resource	Prioritize	Market Design Complete	Market Design Concept Proposed
25	Time Differentiated TCCs	TCC	Prioritize	Market Design Complete	
26	Valuing Transmission Security	Capacity Market	Prioritize	Market Design Complete	Issue Discovery
27	Voltage Support Service for Intermittent Power Resources	Energy Market	Prioritize	Market Design Concept Proposed	
28	Winter Reliability Capacity Enhancements	Capacity Market	Prioritize	Market Design Complete	Issue Discovery
29	Winter Fuel Constraint Study	Capacity Market	Prioritize	Study Complete	

Mandatory 2025 Market Projects

Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable
30	Ambient Adjusted Transmission Lines Rating	Energy Market	Mandatory	Study Complete	
31	Coordinated Grid Planning Process (CGPP)	Planning	Mandatory	Study Complete	Study Defined
32	Demand Curve Reset	Capacity Market	Mandatory	Deployment	Study Complete
33	FERC Order 2222 Compliance	New Resource	Mandatory	Software Design	Functional Requirements
34	FERC Transmission Planning Order	Planning	Mandatory	Issue Discovery	
35	Interconnection Cluster Study Process Implementation	Planning	Mandatory	Deployment	Deployment
36	NYC Public Policy Transmission Need	Planning	Mandatory	Study Complete	

Continuing 2025 Market Projects

Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable
37	CRIS Expiration Evaluation	Capacity Market	Continuing	Deployment	Development Complete
38	Dynamic Reserves - Phase 1	Energy Market	Continuing	Development Complete	Functional Requirements
39	Hybrid Aggregation Model	New Resource	Continuing	Deployment	Functional Requirements
40	Improve Duct-Firing Modeling	Energy Market	Continuing	Deployment	Functional Requirements
41	Integrating Champlain Hudson Power Express (CHPE)	New Resource	Continuing	Development Complete	Study Complete
42	Internal Controllable Lines	New Resource	Continuing	Software Design	Functional Requirements
43	LCR Optimizer Enhancements	Capacity Market	Continuing	Deployment	Deployment
44	Review Operating Reserve Supplier Cost Recovery	Energy Market	Continuing	Market Design Concept Proposed	

Future 2025 Market Projects

Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable
45	Capacity Transfer Rights for Internal Transmission Upgrades	Capacity Market	Future		
46	Dynamic Reserves - Phase 2	Energy Market	Future		
47	Eliminate Fees for CTS Transactions with PJM	Energy Market	Future		
48	Locational Marginal Pricing of Capacity	Capacity Market	Future		
49	Long Island PAR Optimization and Financial Rights	Energy Market	Future		
50	M2M West PARs	Energy Market	Future		
51	More Granular Operating Reserves	Energy Market	Future		
52	Reserves for Congestion Management	Energy Market	Future		
53	Separating Up and Down Regulation Service	Energy Market	Future		

Next Steps

Next Steps

- **Written feedback on project descriptions and project type categorization may be provided until May 31st for incorporation into June 12th presentation**
 - Kevin Pytel (kpytel@nyiso.com) or Shaun Johnson (sjohnson@nyiso.com). You may also call them at 518-428-9528 and 518-774-3959, respectively.
- **Draft scoring survey of Market Projects is scheduled for the June 12th BPWG**
- **NYISO provides initial costs for Market and Enterprise projects at the June 12th BPWG**
- **Continuing project discussions scheduled for the June 24th BPWG**
- **NYISO provides its scores for Market and Enterprise projects at the July 3rd BPWG**
- **Deadline for completing scoring survey is July 14th**

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 – Milestone Definitions

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 such that the proposal can be presented for a vote at the BIC or MC to define further action on the proposal.
Architectural Design	The architectural design document is complete and software development is ready to begin.
Market Projects with the following Milestones will generally be proposed as Continuing in future years, subject to Stakeholder input.	
Functional Requirements	NYISO has completed documentation of the functional requirements, and the Business Owner has approved.
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	Projects that are key to support Strategic Initiatives, FERC Orders, maintain reliable operations, or sustain the operation of the NYISO business. These projects will be included in the budget
Continuing	Approved in a prior year and have progressed to either Functional Requirements, 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. No Enterprise Projects will be Continuing.
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.

Appendix – Scoring

NYISO Scoring Criteria

PRIORITIZATION CRITERIA			
Category	Category Score	Criteria Supported	Category Weight
Strategy (Leader in Reliability, Leader in Market Design & Performance, Leader in Application of Technology, Robust System Planning, Excellence In Execution, & Authoritative Source of Information on Key Issues)	How well does the project support the strategic objectives where 10 is highest and 0 is lowest	Identify what primary strategic objective the project supports, none to several	40%
Operational or Market Issue (The category focuses on the need to include a project to address an operational or market issue including sustaining NYISO systems)	How well does the project address operational or market issue where 10 is highest and 0 is lowest	Identify what primary operational or market issue criteria the project supports, none to several	40%
Cost & Complexity (This category considers current & future year project cost, complexity and sustainability of the proposed solution)	Scores project form a cost and complexity standpoint where 10 is lowest cost, simplest project; and 0 is highest cost, most complex	Identify if project has a significant multi-year dependency	20%

Scoring Results Example

- Stakeholders requested an example showing how the NYISO scoring results would be presented
- Using mock test data, the below table shows how results would be presented in a NYISO rank order

Product / Project	Product portfolio	Strategy	Operational or Market Issue	Cost & Complexity	Score (1-100)	Rank
		4	4	2		
Improving Capacity Accreditation (SOM)	Capacity Market	9.5	4.0	6.0	66	1
Dynamic Reserves (SOM)	Energy Market	8.5	4.0	6.0	62	2
Coordination of Interconnection and Transmission Expansion Study	Planning	6.5	5.0	6.5	59	3
Improve Duct-Firing Modeling (SOM)	Energy Market	7.0	5.0	4.0	56	4
Constraint Specific Transmission Shortage Pricing (SOM)	Energy Market	6.5	4.0	6.0	54	5
Internal Controllable Lines	New Resource	6.0	2.0	2.0	36	6
Hybrid Aggregation Model	New Resource	5.5	2.0	2.0	34	7
Monthly Demand Curves (SOM)	Capacity Market	4.0	2.0	2.0	28	8
Expanding Application of Peak Hour Forecasts	Capacity Market	1.0	2.0	6.0	24	9