

# 2025 Market Projects Cost & NYISO Score

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Kevin Pytel

Director, Product and Project Management

**Budget and Priorities Working Group**

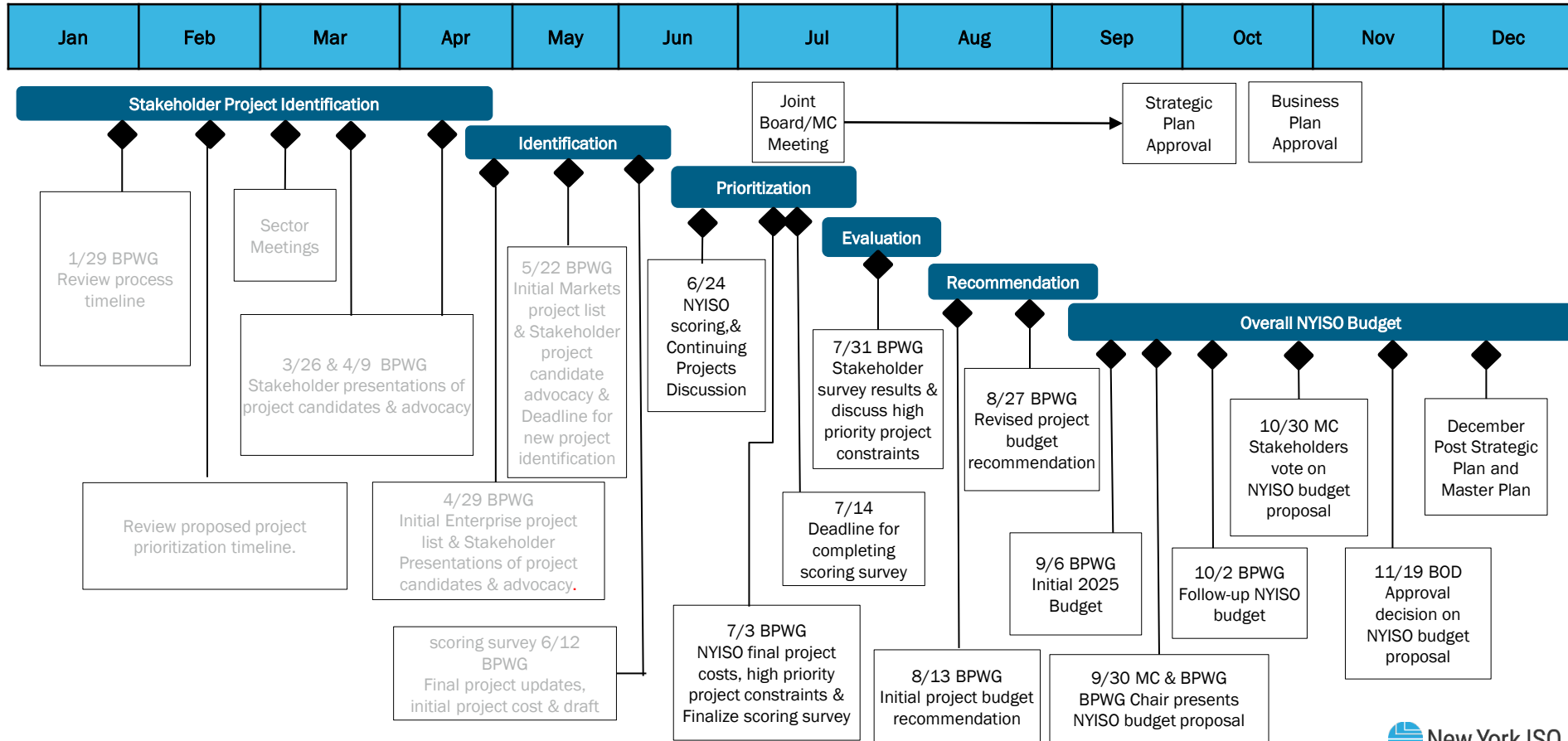
June 24, 2024, WebEx

# Agenda

- **Project Prioritization Timeline**
- **Stakeholder Survey**
- **Project Descriptions / Continuing Projects Discussion**
- **2025 Market Project Candidates**
- **NYISO Scores**
- **Next Steps**

# Project Prioritization Timeline

# Project Prioritization Timeline



# 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 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 Kevin Pytel 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 is posted with the BPWG materials
- Official survey will be distributed after July 3<sup>rd</sup> BPWG
- Deadline for completing stakeholder survey is July 14<sup>th</sup>
- Survey results and high-priority project constraints to be reviewed and discussed at the July 31<sup>st</sup> BPWG



# Project Descriptions

# Project Descriptions

- **The NYISO has developed project descriptions for 56 proposed Market projects**
  - 1 Business & Finance, 14 Capacity Market, 9 New Resource, 26 Energy Markets, 4 Planning & 2 TCC Market
  - 8 Mandatory, 8 Continuing, 28 Prioritize & 12 Future
- **Last year, there were 51 prioritized Market projects included in the stakeholder survey**
- **Project descriptions are included with today's posted meeting materials**

# 2025 Market Project Candidates

# Prioritize 2025 Market Projects

						Estimated Cost (in millions)			
Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable	Labor	Capital	Prof. Serv.	Total
1	5 Minute Transaction Scheduling	Energy Market	Prioritize	Market Design Complete	Market Design Concept Proposed	0.14	0.00	0.00	0.14
2	Advancing NYISO Transparency - Requested by DC Energy	Energy Market	Prioritize	Deployment		0.12	0.00	0.43	0.56
3	Ancillary Service Shortage Pricing	Energy Market	Prioritize	Study Complete		0.07	0.00	0.00	0.07
4	Balancing Intermittency	Energy Market	Prioritize	Deployment	Market Design Complete	0.26	0.00	0.35	0.61
5	Billing Organization Portfolios for Reporting	Business & Finance	Prioritize	Deployment	Market Design Complete				
6	Capacity Market Structure Review	Capacity Market	Prioritize	Issue Discovery					
7	Clean Hydrogen - Requested by NextEra	New Resource	Prioritize	Market Design Complete		0.15	0.00	0.00	0.15

Note: Items in red are changed or new since last BPWG meeting

# Prioritize 2025 Market Projects

						Estimated Cost (in millions)			
Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable	Labor	Capital	Prof. Serv.	Total
8	IROL Generator Cost Recovery (Proposed by Advanced Power)	Energy Market	Prioritize	Market Design Complete		0.04	0.00	0.00	0.04
9	Demand Curve Reset Process Evaluation	Capacity Market	Prioritize	Issue Discovery		0.09	0.00	0.00	0.09
10	Demand Curve WSR Revisions (SOM)	Capacity Market	Prioritize	Market Design Concept Proposed		0.02	0.00	0.00	0.02
11	Eliminate Offline GT Pricing	Energy Market	Prioritize	Functional Requirements		0.03	0.00	0.25	0.28
12	Engaging the Demand Side	New Resource	Prioritize	Market Design Complete		0.28	0.00	0.00	0.28
13	Engaging the Demand Side Phase 2	New Resource	Prioritize	Study Defined					
14	Granular Capacity Market Pricing	Capacity Market	Prioritize	Study Defined	Issue Discovery	0.19	0.00	0.00	0.19

# Prioritize 2025 Market Projects

Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable	Estimated Cost (in millions)			
						Labor	Capital	Prof. Serv.	Total
15	Improved Small Customer Enrollment in DRIS - Requested by OhmConnect	New Resource	Prioritize	Market Design Complete		0.03	0.00	0.00	0.03
16	Market Purchase Hub Transactions	Energy Market	Prioritize	Functional Requirements	Market Design Concept Proposed				
17	Mitigation Threshold Review	Energy Market	Prioritize	Market Design Concept Proposed		0.07	0.00	0.00	0.07
18	Operating Reserves Performance	Energy Market	Prioritize	Software Design	Market Design Concept Proposed	0.06	0.00	0.00	0.06
19	Pivotal Supplier Calculation Change	Capacity Market	Prioritize	Market Design Concept Proposed		0.03	0.00	0.00	0.03
20	Reserving Capacity for TCC Balance-of-Period (BOP) Auctions	TCC	Prioritize	Software Design		0.12	0.00	0.00	0.12
21	Review of Control Area System Resources	Capacity Market	Prioritize	Market Design Concept Proposed		0.08	0.00	0.00	0.08

# Prioritize 2025 Market Projects

						Estimated Cost (in millions)			
Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable	Labor	Capital	Prof. Serv.	Total
22	Review of Real-Time Market Structure	Energy Market	Prioritize	Issue Discovery		0.01	0.00	0.30	0.31
23	Storage as Transmission	New Resource	Prioritize	Market Design Complete		0.14	0.00	0.05	0.19
24	Time Differentiated TCCs	TCC	Prioritize	Market Design Complete					
25	Valuing Transmission Security	Capacity Market	Prioritize	Market Design Complete	Issue Discovery	0.22	0.00	0.00	0.22
26	VSS for Inverter Based Resources (VSS-IBR)	Energy Market	Prioritize	Market Design Concept Proposed					
27	Winter Reliability Capacity Enhancements	Capacity Market	Prioritize	Market Design Complete	Issue Discovery	0.27	0.00	0.00	0.27
28	Winter Fuel Constraint Study	Capacity Market	Prioritize	Study Complete		0.19	0.00	0.35	0.54

# Mandatory 2025 Market Projects

Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable	Estimated Cost (in millions)			
						Labor	Capital	Prof. Serv.	Total
29	Ambient Adjusted Transmission Lines Rating	Energy Market	Mandatory	Study Complete		0.06	0.00	0.00	0.06
30	Coordinated Grid Planning Process (CGPP)	Planning	Mandatory	Study Complete	Study Defined	0.34	0.25	0.20	0.79
31	Demand Curve Reset	Capacity Market	Mandatory	Deployment	Study Complete	0.02	0.00	0.10	0.12
32	FERC Order 2222 Compliance	New Resource	Mandatory	Software Design	Functional Requirements				
33	FERC Transmission Planning Order	Planning	Mandatory	Issue Discovery		0.54	0.00	0.30	0.84
34	Interconnection Cluster Study Process Implementation	Planning	Mandatory	Deployment	Deployment	0.36	0.05	0.57	0.98
35	Long Mountain PAR Operating Protocol with ISO-NE	Energy Market	Mandatory	Market Design Complete					
36	NYC Public Policy Transmission Need	Planning	Mandatory	Study Complete		1.84	0.00	0.20	2.04

Note: Items in red are changed or new since last BPWG meeting



# Continuing 2025 Market Projects

						Estimated Cost (in millions)			
Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable	Labor	Capital	Prof. Serv.	Total
37	CRIS Expiration Evaluation	Capacity Market	Continuing	Deployment	Development Complete	0.07	0.00	0.00	0.07
38	Dynamic Reserves - Phase 1	Energy Market	Continuing	Software Design					
39	Hybrid Aggregation Model	New Resource	Continuing	Deployment	Deployment	0.32	0.00	0.34	0.66
40	Improve Duct-Firing Modeling	Energy Market	Continuing	Deployment	Functional Requirements	0.29	0.00	0.60	0.89
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	0.22	0.00	0.35	0.57
43	LCR Optimizer Enhancements	Capacity Market	Continuing	Deployment		0.06	0.00	0.20	0.26
44	Dynamic Reserves - Review Operating Reserve Supplier Cost Recovery	Energy Market	Continuing	Market Design Concept Proposed					

Note: Items in red are changed or new since last BPWG meeting

# Future 2025 Market Projects

						Estimated Cost (in millions)			
Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable	Labor	Capital	Prof. Serv.	Total
45	Balancing Intermittency - Phase 2	Energy Market	Future						
46	Balancing Intermittency - Phase 3	Energy Market	Future						
47	Capacity Transfer Rights for Internal Transmission Upgrades	Capacity Market	Future						
48	Uncertainty Adjustment Review	Energy Market	Future						
49	Eliminate Fees for CTS Transactions with PJM	Energy Market	Future						
50	Improve Duct-Firing Modeling: Multiple Ramp Rates	Energy Market	Future						

# Future 2025 Market Projects

							Estimated Cost (in millions)			
Item	Project	Product Area	Project Type	2025 Proposed Deliverable	2024 Deliverable	Labor	Capital	Prof. Serv.	Total	
51	Locational Marginal Pricing of Capacity	Capacity Market	Future							
52	More Granular Operating Reserves	Energy Market	Future							
52	Long Island PAR Optimization and Financial Rights	Energy Market	Future							
53	M2M West PARs	Energy Market	Future							
55	Reserves for Congestion Management	Energy Market	Future							
56	Separating Up and Down Regulation Service	Energy Market	Future							

# NYISO Scores

# NYISO Scores

Item	Project	Product Area	Strategy	Operational or Market Issue	Cost & Complexity	NYISO Score	Rank (All Projects)
			4	4	2	NYISO Score	
27	Winter Reliability Capacity Enhancements	Capacity Market	8.0	8.0	5.0	74	1
25	Valuing Transmission Security	Capacity Market	7.0	8.0	4.0	68	2
4	Balancing Intermittency	Energy Market	7.0	6.0	6.0	64	5
21	Review of Control Area System Resources	Capacity Market	6.0	6.0	6.0	60	12
5	Billing Organization Portfolios for Reporting	Business & Finance	5.0	6.0	7.0	58	17
9	Demand Curve Reset Process Evaluation	Capacity Market	7.0	3.0	7.0	54	33

Note: NYISO Rank is across Market and Enterprise Projects

# NYISO Scores

Item	Project	Product Area	Strategy	Operational or Market Issue	Cost & Complexity	NYISO Score	Rank (All Projects)
			4	4	2	NYISO Score	
14	Granular Capacity Market Pricing	Capacity Market	8.0	5.0	1.0	54	33
28	Winter Fuel Constraint Study	Capacity Market	6.0	4.0	7.0	54	33
12	Engaging the Demand Side	New Resource	5.0	4.0	8.0	52	45
10	Demand Curve WSR Revisions (SOM)	Capacity Market	6.0	3.0	7.0	50	52
18	Operating Reserves Performance	Energy Market	5.0	5.0	5.0	50	52
26	VSS for Inverter Based Resources (VSS-IBR)	Energy Market	5.0	5.0	5.0	50	52
3	Ancillary Service Shortage Pricing	Energy Market	7.0	3.0	3.0	46	67

Note: NYISO Rank is across Market and Enterprise Projects

# NYISO Scores

Item	Project	Product Area	Strategy	Operational or Market Issue	Cost & Complexity	NYISO Score	Rank (All Projects)
			4	4	2	NYISO Score	
11	Eliminate Offline GT Pricing	Energy Market	3.0	7.0	3.0	46	67
24	Time Differentiated TCCs	TCC	5.0	4.0	4.0	44	72
16	Market Purchase Hub Transactions	Energy Market	3.0	5.0	5.0	42	74
17	Mitigation Threshold Review	Energy Market	3.0	3.0	9.0	42	74
13	Engaging the Demand Side Phase 2	New Resource	6.0	2.0	3.0	38	80
19	Pivotal Supplier Calculation Change	Capacity Market	3.0	3.0	7.0	38	80
22	Review of Real-Time Market Structure	Energy Market	8.0	1.0	1.0	38	80

Note: NYISO Rank is across Market and Enterprise Projects

# NYISO Scores

Item	Project	Product Area	Strategy	Operational or Market Issue	Cost & Complexity	NYISO Score	Rank (All Projects)
			4	4	2	NYISO Score	
20	Reserving Capacity for TCC Balance-of-Period (BOP) Auctions	TCC	3.0	5.0	1.0	34	85
1	5 Minute Transaction Scheduling	Energy Market	4.0	3.0	1.0	30	87
7	Clean Hydrogen - Requested by NextEra	New Resource	3.0	1.0	7.0	30	87
2	Advancing NYISO Transparency - Requested by DC Energy	Energy Market	3.0	1.0	5.0	26	89
8	IROL Generator Cost Recovery (Proposed by Advanced Power)	Energy Market	1.0	1.0	8.0	24	90
23	Storage as Transmission	New Resource	3.0	2.0	2.0	24	90
15	Improved Small Customer Enrollment in DRIS - Requested by OhmConnect	New Resource	1.0	1.0	7.0	22	92
6	Capacity Market Structure Review	Capacity Market	TBD	TBD	TBD	TBD	TBD

Note: NYISO Rank is across Market and Enterprise Projects



# Next Steps

# Next Steps

- **Final Costs and Scores will be presented at the July 3<sup>rd</sup> BPWG**
- **Scoring Survey will be sent out after July 3<sup>rd</sup> BPWG**
- **Deadline for completing scoring survey will be July 14<sup>th</sup>**
- **Contact Kevin Pytel, Shaun Johnson or Member Relations for any related issues or questions**
  - 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
- **Stakeholder scoring and high priority project constraints results will be presented at the July 31<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

# NYISO Scoring Criteria

PRIORITIZATION CRITERIA			
Category	Category Score	Criteria Supported	Category Weight
<b>Strategy</b> (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%
<b>Operational or Market Issue</b> (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%
<b>Cost &amp; Complexity</b> (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%

# 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.
<b>Market Projects with the following Milestones will generally be proposed as Continuing in future years, subject to Stakeholder input.</b>	
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.