

2020 Final Project Budget Recommendation

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September 9, 2019, Krey Corporate Center

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Agenda

- Project Prioritization Phases, Milestones, and Timeline
- Stakeholder Feedback
- Stakeholder Scored Projects
- Final Project Budget Recommendation
- Project Budget Summary
- Next Steps

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Project Prioritization Phases, Milestones, and Timeline

Project Prioritization Process

Phase	Description
Identification	This phase involves developing the list of project candidates taking into consideration regulatory obligations, strategic initiatives, State of the Market recommendations, necessary infrastructure enhancements, product plans, stakeholder feedback, etc.
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 or Development Complete. 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

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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.

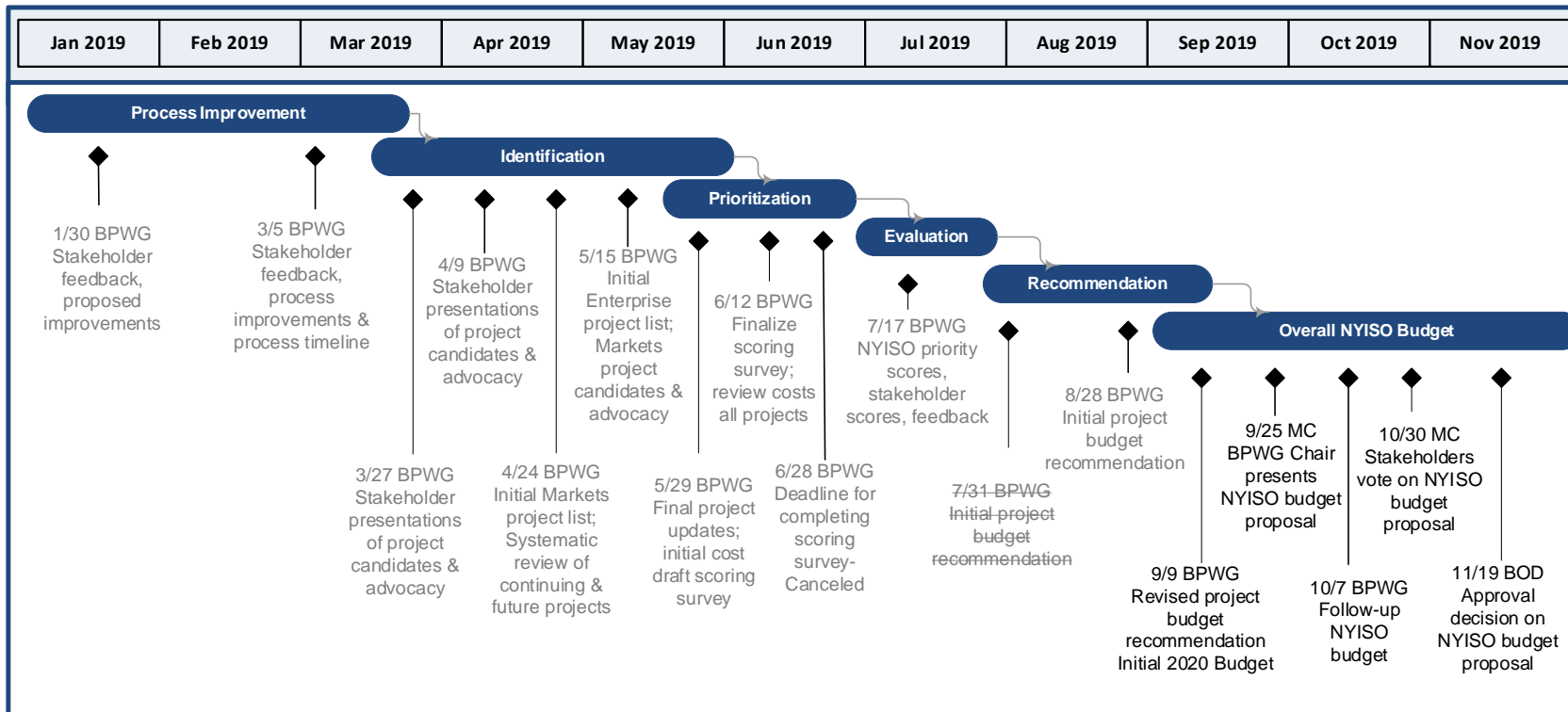
Project Prioritization Criteria * Same as used in 2018

PRIORITIZATION CRITERIA						
Category	Criteria	Criteria Weight	HIGH	MEDIUM	LOW	NONE
			10	7	3	0
Strategy (If we do this project)	Leader in Reliability	10	Significantly improves NYISO ability to maintain NYCA Reliability	Moderately improves NYISO ability to maintain NYCA Reliability	Minimally improves NYISO ability to maintain NYCA Reliability	None
	Leader in Market Design	10	Significantly improves NYISO Market Design	Moderately improves NYISO Market Design	Minimally improves NYISO Market Design	None
	Leader in Technology Innovation	6	Significantly advances the IT strategy or technology improvement	Moderately advances the IT strategy or technology improvement	Minimally advances the IT strategy or technology improvement	None
	Sustain and Enhance Robust Planning Processes	9	Supports tariff, FERC, NPCC, or NYSERC compliance requirements for Planning Process	Supports reliability planning and/or Business Plan objectives	Required for SRP planning study efficiency or continuous improvement initiatives	None
Outcome (If we do this project)	NYISO Annual Cost Reduction	10	>\$500k savings-Direct and soft (labor)	>\$100k, <\$500k savings-Direct and soft (labor)	>\$10k,<\$100k savings - Direct and soft (labor)	<\$10k savings - Direct and soft (labor)
	Appeal	15	Broad Customer Support : Supported by 5 sectors with 25% or more of survey respondents per sector applying points and average across the survey respondents per sector of 5 points or more; or either raw or weighted scores equivalent to 20% of survey respondents applying 25 points or more	Moderate Customer Support: Supported by 4 sectors with 25% or more of survey respondents per sector applying points and average across the survey respondents per sector of 5 points or more; ; or either raw or weighted scores equivalent to 10% of survey respondents applying 25 points or more	Minimal Customer Support: Supported by 2 sectors with 25% or more of survey respondents per sector applying points and average across the survey respondents per sector of 5 points or more; ; or either raw or weighted scores equivalent to 5% of survey respondents applying 25 points or more	Little to No Customer Support
	Market Efficiency	10	Significant improvement	Moderate improvement	Minimal improvement	No impact
	Post Production Sustainability	5	Existing support structure and skills	Support structure exists but needs minimal modifications	Support structure exists but needs major modifications	No skills or support structure in place
Risk (If we do NOT do this project)	Compliance	10	Significant risk of compliance violation	Moderate risk of compliance violation	Minimal risk of compliance violation	None
	Business Process (inclusive of technology impact on business process)	5	Enterprise Wide and/or Bid to Bill Impact. The project impacts processes in most departments	Multiple Department Impact.	Department Wide Impact The project impacts many processes within a department	Only one or two processes impacted
	Reliability and Market	10	Mission-critical systems becoming non operational or above \$1 million market impact	Non mission-critical systems becoming non operational or \$100,000 - \$1 million market impact	Non mission-critical systems affected or \$10,000 - \$100,000 market impact	No or less than 10,000 impact
Execution (If we do this project)	Cost	4	Total project cost (current & future years) estimated <\$100k	Total project cost (current & future years) estimated >\$100k, <\$500k	Total project cost (current & future years) estimated >\$500, <\$1M	Total project cost (current & future years) estimated >\$1M
	Multi-Year Dependency	8	Continuation of a multi-year project - postponement significantly disrupts value of previous investments	Continuation of a multi-year project - postponement moderately disrupts value of previous investments	Continuation of a multi-year project - postponement minimally disrupts value of previous investments	None
	Complexity of Business and Technology	4	One area/technology	Cross-functional < 3 Areas/Technology	Highly Cross-functional/ Re-engineering	Complex, solution and impact unknown
	Compliance	8	Non-appealable, ordered by FERC / desired by NYISO and MP	Ordered by FERC, undesired by NYISO or MP	Potential order identified by FERC	No order identified by FERC

Milestone Definitions

Milestone	Definition
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.
Architectural Design	The architectural design document is complete and software development is ready to begin.
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.
Study Complete	Scope of work to be performed has been completed; results and recommendations have been presented to the appropriate Business Owners and stakeholders.
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.
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.

Project Prioritization Timeline



Stakeholder Feedback

Stakeholder Feedback on Initial Budget Recommendation

Stakeholder Feedback	NYISO Response
On the historic budget comparison, could you split out the Enterprise and Market Projects costs?	A project budget summary slide has been added to the presentation that splits out these costs.
On stakeholder scored projects slides, could you put a legend for what the colors mean?	A legend has been added to the slides.

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Stakeholder Feedback on Initial Budget

Recommendation

Stakeholder Feedback	NYISO Response
<p>For Comprehensive Mitigation Review, concern was expressed with changing the milestone from Study Defined to Market Design Complete.</p>	<p>The NYISO appreciates stakeholder feedback and concerns raised on the urgency for this project. Based on stakeholder feedback, actions already taken or likely to occur at the federal level, and state actions including the recent passage of the Climate Leadership and Community Protection Act, the NYISO believes it is necessary to pursue this initiative with the goal of achieving a Market Design Complete objective. The NYISO recognizes the disparity of stakeholder positions in exploring the conflict between existing buyer-side mitigation rules and state public policy objectives. This effort will seek feedback on concerns with the existing constructs and ideas to improve market outcomes, as well as pursue viable opportunities.</p>
<p>Could NYISO provide the cost delta between the Functional Requirement and Development Complete milestones for Carbon Pricing?</p>	<p>Estimated labor associated with Development Complete is \$720K versus \$150K for Functional Requirements, a \$570K cost delta.</p>

Stakeholder Feedback on Initial Budget

Recommendation

Stakeholder Feedback	NYISO Response
<p>For Carbon Pricing, please explain what is meant by completing the software implementation in 18 months once the proposal is approved by stakeholders.</p>	<p>The NYISO previously said Carbon Pricing would be implemented no earlier than April 2021. The NYISO wants to provide some market certainty for forward markets on the implementation timeline so has provided the 18-month implementation timeframe.</p>
<p>For Carbon Pricing, how soon would the NYISO take a vote once something is heard from the state?</p>	<p>The NYISO is committed to providing stakeholder advance notice of any vote to allow market participants time to poll their membership before having such a vote.</p>
<p>The NYISO should reserve the additional labor in the 2020 budget for Development Complete for Carbon Pricing.</p>	<p>Given the desire to provide an implementation timeline to inform the forward markets and the uncertainty surrounding when a vote will be taken, the NYISO believes that Functional Requirements is a prudent milestone for Carbon Pricing to better guide the implementation efforts.</p>































Stakeholder Feedback on Initial Budget Recommendation

Stakeholder Feedback	NYISO Response
<p>For Reserving Capacity for TCC Balance-of-Period (BOP) Auctions, would the milestone be more appropriately Issue Discovery or Market Design Concept Proposed based on the use of the term “potential” in the project objective?</p>	<p>The NYISO believes Market Design Complete accurately reflects the scope of work that would be pursued for this project in 2020. As reflected in the project description, the intent is to work with stakeholders to develop authority that would permit the reservation of a portion of transmission capacity for release into the TCC BOP Auctions, as well as rules associated with properly administering any such reservations. The NYISO is currently not contemplating the pursuit of a design that would mandate any such capacity reservations. Rather, the NYISO anticipates that decisions about what, if any, amount of transmission capacity to reserve would occur as part of the normal auction plan development in advance of each Centralized TCC Auction. These auction plans are informed by feedback from market participants, and are discussed with stakeholders before being finalized.</p>

Stakeholder Scored Projects





Budget Recommendations for Stakeholder Scored Projects

























	= 10, High Stakeholder Appeal
	= 7, Medium Stakeholder Appeal
	= 3, Low Stakeholder Appeal
	= 0, Little to None Stakeholder Appeal

Proposed Projects	Budget Recommendation	Raw Score (Avg.)	Weighted Score	Sector Count	Sum of Scores	Stakeholder Appeal	NYISO Score
Ancillary Services Shortage Pricing (SOM)	Included	 9.8	 10.0	 5.0	24.8	High	480
Hybrid Storage Model	Included	 8.8	 7.5	 3.0	19.3	High	396
Enhancing Fuel and Energy Security	Included	 6.4	 6.5	 4.0	17.0	High	456
Comprehensive Mitigation Review	Included	 6.5	 7.2	 3.0	16.7	High	392
Locational Marginal Pricing of Capacity (SOM)	Included	 4.8	 6.2	 4.0	15.0	High	355
Tailored Availability Metric	Included	 5.3	 5.9	 3.0	14.2	High	478
Grid in Transition Discussion - Submitted by LIPA	Included	 6.4	 5.5	 2.0	13.9	High	376
Reserves for Resource Flexibility	Included	 5.0	 5.6	 3.0	13.5	High	430

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Budget Recommendations for Stakeholder Scored Projects





	= 10, High Stakeholder Appeal
	= 7, Medium Stakeholder Appeal
	= 3, Low Stakeholder Appeal
	= 0, Little to None Stakeholder Appeal






















Proposed Projects	Budget Recommendation	Raw Score (Avg.)	Weighted Score	Sector Count	Sum of Scores	Stakeholder Appeal	NYISO Score
Reserving Capacity for Balance-of-Period (BoP) Auctions	Included	 5.0	 5.0	 2.0	12.0	High	456
Constraint Specific Transmission Shortage Pricing (SOM)	Not Recommended <input type="checkbox"/>	 4.9	 4.9	 2.0	11.8	Medium	354
Relocating the IESO Proxy Bus	Included	 6.7	 4.0	 1.0	11.7	High	428
BSM Evaluation for Small Resources Outside of the Class Year (SOM) * ¹	Not Recommended <input type="checkbox"/>	 4.1	 4.5	 3.0	11.6	Medium	273
5 Minute Transaction Scheduling	Included	 4.8	 4.4	 1.0	10.2	Medium	332
CRIS Tracking * ²	Included	 4.7	 4.3	 1.0	10.0	Medium	430
Reserve Enhancements for Constrained Areas (SOM)	Not Recommended <input type="checkbox"/>	 2.9	 3.8	 2.0	8.7	Medium	356
Linked Virtual Transactions	Not Recommended <input type="checkbox"/>	 3.5	 1.7	 1.0	6.2	Medium	272

*¹ Expected to complete in 2019

*² A key reason the NYISO is including this project is because the NYISO scored the project as “medium” under Compliance Risk criteria.

Budget Recommendations for Stakeholder Scored Projects

	= 10, High Stakeholder Appeal
	= 7, Medium Stakeholder Appeal
	= 3, Low Stakeholder Appeal
	= 0, Little to None Stakeholder Appeal

Proposed Projects	Budget Recommendation	Raw Score (Avg.)	Weighted Score	Sector Count	Sum of Scores	Stakeholder Appeal	NYISO Score
Capacity Zone Elimination - Submitted by Central Hudson	Not Recommended	 2.0	 2.8	 1.0	5.8	Medium	237
NYC Part A Test Exemption (SOM)	Not Recommended	 2.5	 2.1	 1.0	5.6	Low	253
Enhanced BSM Mitigation Study Period* ¹	Included	 2.0	 2.4	 1.0	5.5	Low	228
Enhanced BSM Forecasts Assumptions (SOM)	Not Recommended	 1.5	 2.6	 0.0	4.1	Medium	248
WEELR Participation Model	Not Recommended	 1.1	 1.0	 0.0	2.1	None	117
Communication of Voltage Schedule to Generators	Not Recommended	 0.7	 1.2	 0.0	1.9	None	83
Mitigation Thresholds Review* ²	Included	 0.6	 0.7	 0.0	1.3	None	281

*¹ The NYISO included this project because it has been working with stakeholders on this particular problem and the project is a lower cost effort that did not have a significant budget impact.

*² A key reasons the NYISO is including this project is because the NYISO scored the project as “medium” under the Compliance Risk criteria. Additionally the project is a lower cost effort that did not have a significant budget impact.

Final Project Budget Recommendation

2020 Project Candidates

Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
Budgeting Tool	Business and Finance Products	Prioritize		Functional Requirements	0.13	0.00	0.00	0.13
CMS and ConInvoice Data Integration	Business and Finance Products	Prioritize		Functional Requirements	0.08	0.00	0.00	0.08
CMS Minimum Participation Criteria Enhancements	Business and Finance Products	Prioritize		Deployment	0.03	0.00	0.00	0.03
Customer Relationship Management (Salesforce CRM) Enhancements	Business and Finance Products	Prioritize		Deployment	0.15	0.08	0.10	0.33
Enterprise Information Management - Data Integration Phase IV	Business and Finance Products	Continuing		Development Complete	0.92	0.20	1.23	2.35
FERC Form1 Redesign	Business and Finance Products	Mandatory		Deployment	0.11	0.15	0.00	0.26
Finance Reporting and BVA Automation	Business and Finance Products	Prioritize		Functional Requirements	0.13	0.00	0.00	0.13
Financial Risk Assessment and Scoring Enhancement	Business and Finance Products	Continuing		Deployment	0.18	0.00	0.00	0.18

2020 Project Candidates

Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
Minimum Oil Burn Enhancements	Business and Finance Products	Prioritize		Deployment	0.19	0.00	0.00	0.19
NYISO Budget (Rate Schedule 1) Cost Recovery Update	Business and Finance Products	Continuing ^{*1}		Functional Requirements	0.04	0.00	0.00	0.04
Oracle Financials Upgrade	Business and Finance Products	Continuing		Deployment	0.25	0.00	0.50	0.75
Position Control System	Business and Finance Products	Continuing ^{*2}		Deployment	0.10	0.03	0.08	0.20
Rate Schedule 12 Settlement	Business and Finance Products	Continuing		Deployment	0.27	0.00	0.00	0.27
SDX API Pilot	Business and Finance Products	Prioritize		Development Complete	0.16	0.00	0.00	0.16
Station Power Platform Enhancement	Business and Finance Products	Prioritize		Deployment	0.22	0.00	0.00	0.22
Transactions Modifications and Confirmation Tool	Business and Finance Products	Prioritize		Functional Requirements	0.13	0.00	0.00	0.13

*1 Stakeholders at the July 31, 2019 Management Committee did not approve doing a new cost of service study

*2 Less costly solution being pursued that does not require a project in 2020

2020 Project Candidates

Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
Vendor Management Tool	Business and Finance Products	Continuing* ¹		Deployment	0.03	0.00	0.00	0.03
BSM Evaluation for Small Resources Outside of the Class Year (SOM)* ¹	Capacity Market Products	Prioritize	Medium	Market Design Complete	0.06	0.00	0.00	0.06
BSM Renewables Exemption Study	Capacity Market Products	Mandatory		Study Complete	0.04	0.00	0.20	0.24
Capacity Transfer Rights for Internal Transmission Upgrades (SOM)	Capacity Market Products	Future						
Capacity Zone Elimination	Capacity Market Products	Prioritize	Medium	Market Design Concept Proposed	0.18	0.00	0.55	0.73
Competitive Entry Exemption Non-Qualifying Contract Rule Review (SOM)* ¹	Capacity Market Products	Continuing* ¹		Market Design Concept Proposed	0.03	0.00	0.00	0.03
Comprehensive Mitigation Review	Capacity Market Products	Prioritize	High	Market Design Complete	0.29	0.00	0.10	0.39
CRIS Tracking	Capacity Market Products	Prioritize	Medium	Functional Requirements	0.02	0.00	0.00	0.02

*¹ Project expected to complete in 2019

2020 Project Candidates

Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
Demand Curve Reset	Capacity Market Products	Mandatory		Study Complete	0.45	0.00	0.90	1.35
Dynamic Creation of Zones (SOM)	Capacity Market Products	Future						
Enhanced BSM Forecasts Assumptions (SOM)	Capacity Market Products	Prioritize	Medium	Market Design Concept Proposed	0.05	0.00	0.00	0.05
Enhanced BSM Mitigation Study Period	Capacity Market Products	Prioritize	Low	Market Design Complete	0.05	0.00	0.00	0.05
Enhancing Fuel and Energy Security	Capacity Market Products	Prioritize	High	Market Design Concept Proposed	0.10	0.00	0.00	0.10
Locational Marginal Pricing of Capacity (SOM)	Capacity Market Products	Prioritize	High	Issue Discovery	0.06	0.00	0.00	0.06
NYC Part A Test Exemption (SOM)	Capacity Market Products	Prioritize	Low	Market Design Concept Proposed	0.03	0.00	0.00	0.03
Tailored Availability Metric	Capacity Market Products	Prioritize	High	Market Design Complete	0.12	0.00	0.05	0.17

2020 Project Candidates

Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
DER Participation Model	DER Products	Mandatory		Software Design	2.00	0.27	0.60	2.87
Dual Participation	DER Products	Mandatory		Deployment	0.15	0.00	0.00	0.15
Expanding Capacity Eligibility	DER Products	Mandatory		Development Complete	0.73	0.00	1.00	1.73
Meter Service Entity for DER	DER Products	Mandatory ^{*1}		Functional Requirements	0.32	0.00	0.20	0.52
NYISO Pilot Framework	DER Products	Continuing		Study Complete	0.13	0.00	0.00	0.13
5 Minute Transaction Scheduling	Energy Market Products	Prioritize	Medium	Study Complete	0.05	0.00	0.00	0.05
Ancillary Services Shortage Pricing (SOM)	Energy Market Products	Prioritize	High	Market Design Complete	0.33	0.00	0.10	0.43
Carbon Pricing	Energy Market Products	Continuing		Functional Requirements ^{*2}	0.15	0.00	0.00	0.15

^{*1} Because a manual solution being implemented in 2019, the NYISO determined that a project is not needed in 2020

^{*2} The NYISO will continue to work with New York State officials and its stakeholders on the merits of its proposal to garner support. Once the Carbon Pricing proposal is approved by stakeholders, the NYISO expects to complete the software implementation in 18 months.



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2020 Project Candidates

Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
Constraint Specific Transmission Shortage Pricing (SOM)	Energy Market Products	Prioritize	Medium	Functional Requirements	0.14	0.00	0.00	0.14
DAM Congestion Settlement Re-Allocation	Energy Market Products	Prioritize		Development Complete	0.16	0.00	0.00	0.16
Eliminate Fees for CTS Transactions with PJM (SOM)	Energy Market Products	Future						
Energy Market Software Performance	Energy Market Products	Prioritize		Study Complete	0.13	0.00	0.20	0.33
Enhanced Fast Start Pricing	Energy Market Products	Mandatory		Deployment	0.28	0.00	0.15	0.43
Enhanced PAR Modeling (SOM)	Energy Market Products	Future						
ESR Participation Model	Energy Market Products	Mandatory		Deployment	1.22	0.00	2.10	3.32
Grid in Transition Discussion	Energy Market Products	Prioritize	High	Issue Discovery	0.05	0.00	0.25	0.30

2020 Project Candidates

Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
Hybrid Storage Model	Energy Market Products	Prioritize	High	Market Design Complete	0.15	0.00	0.00	0.15
Linked Virtual Transactions	Energy Market Products	Prioritize	Medium	Functional Requirements	0.14	0.00	0.30	0.44
Long Island PAR Optimization and Financial Rights (SOM)	Energy Market Products	Future						
Mitigation Thresholds Review	Energy Market Products	Prioritize	None	Market Design Concept Proposed	0.03	0.00	0.00	0.03
Relocating the IESO Proxy Bus	Energy Market Products	Prioritize	High	Deployment	0.05	0.00	0.00	0.05
Reserve Enhancement for Constrained Areas (SOM)	Energy Market Products	Prioritize	Medium	Study Complete	0.11	0.00	0.40	0.51
Reserves for Resource Flexibility	Energy Market Products	Prioritize	High	Deployment	0.23	0.00	0.00	0.23
RTC-RTD Convergence Improvements (SOM)	Energy Market Products	Future						

2020 Project Candidates

Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
WEELR Participation Model	Energy Market Products	Prioritize	None	Market Design Concept Proposed	0.16	0.00	0.00	0.16
ACC Control Room Renovations	Enterprise Products	Prioritize		Deployment	0.36	1.73	0.57	2.66
Access Management	Enterprise Products	Prioritize		Deployment	0.60	0.13	0.45	1.18
Advanced Test Automation	Enterprise Products	Prioritize		Deployment	0.11	0.00	0.33	0.43
Application Platform Upgrade - 2020	Enterprise Products	Continuing		Deployment	0.55	0.00	0.00	0.55
CIP Program Optimization and New Standards Development	Enterprise Products	Prioritize		Study Complete	0.35	0.00	0.20	0.55
Database Upgrade and Platform Migration	Enterprise Products	Continuing		Deployment	0.40	1.62	0.13	2.14
E-Tagging Refresh and Performance Improvements	Enterprise Products	Prioritize		Deployment	0.15	0.00	0.22	0.37

2020 Project Candidates

Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
GFER Upgrade	Enterprise Products	Prioritize		Deployment	0.10	0.00	0.00	0.10
IT Infrastructure Automation	Enterprise Products	Continuing		Deployment	0.46	0.00	0.20	0.66
IT Service Management Improvements	Enterprise Products	Prioritize		Deployment	0.22	0.20	0.25	0.67
Market Information Systems Modernization	Enterprise Products	Prioritize		Study Complete	0.17	0.11	0.19	0.47
Network Infrastructure Upgrade	Enterprise Products	Continuing		Deployment	0.19	1.35	0.00	1.54
Automated Default Bid Mitigation	Operations & Reliability Products	Continuing		Deployment	0.15	0.00	0.00	0.15
Communication of Voltage Schedule to Generators	Operations & Reliability Products	Prioritize	None	Deployment	0.04	0.00	0.00	0.04
EMS Visualization Native PI Viewer – Interface and Event Tool	Operations & Reliability Products	Prioritize		Deployment	0.10	0.13	0.00	0.23

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Project Name	Product Area	Project Type	Stakeholder Appeal	Proposed Deliverable	Estimated Cost (in millions)			
					Labor	Capital	Prof. Serv.	Total
EMS/BMS Operational Enhancements	Operations & Reliability Products	Prioritize		Deployment	0.68	0.00	1.58	2.26
Grid Guardian Network Topology Feature Implementation	Operations & Reliability Products	Prioritize		Deployment	0.13	0.13	0.00	0.26
NextEra Transmission Owner Integration	Operations & Reliability Products	Mandatory		Study Complete	0.12	0.00	0.00	0.12
Transmission and Generation Scheduling System (TAGSS)	Operations & Reliability Products	Continuing		Development Complete	0.38	0.00	1.00	1.38
Climate Change Impact and Resilience Study	Planning Products	Continuing		Study Complete	0.09	0.00	0.40	0.49
On-Peak/Off-Peak TCC's	TCC Products	Future						
Reserving Capacity for TCC Balance-of-Period (BOP) Auctions	TCC Products	Prioritize	High	Market Design Complete	0.12	0.00	0.00	0.12
TCC Auction Billing	TCC Products	Prioritize		Deployment	0.20	0.00	0.00	0.20

Project Budget Summary

Final Recommendation by Project Category

Project Category	Estimated Cost (in millions)				Mandatory	Continuing
	Labor	Capital	Prof. Serv.	Total		
Enterprise	6.67	5.46	6.55	18.68	0.38	9.97
Markets	6.89	0.27	5.85	13.01	10.10	0.77
Final Recommendation	13.57	5.73	12.40	31.69	10.48	10.74

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Historic Project Budget Comparison

Project Budget*	Estimated Cost (in millions)				Mandatory	Continuing
	Labor	Capital	Prof. Serv.	Total		
2020 Candidate Projects	17.98	6.12	20.16	44.26	13.31	12.82
2020 Final Recommendation	13.57	5.73	12.40	31.69	10.48	10.74
2019 Approved	11.47	4.65	12.82	28.95	9.40	14.82
2018 Approved	11.01	7.96	4.64	23.61	2.15	8.80
2017 Approved	11.10	6.18	4.59	21.87	1.01	9.10
2016 Approved	11.50	6.32	3.78	21.60	4.17	12.06
2015 Approved	11.63	5.29	5.63	22.55	5.67	NA

* 2015-2019 exclude EMS/BMS Upgrade project as it had separate financing

Next Steps

Next Steps

- The NYISO is reviewing the initial NYISO budget at today's BPWG meeting
- On September 25th, the BPWG Chair will present the NYISO budget proposal at the Management Committee meeting

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Questions?

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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