2016 Project Prioritization & Budgeting Process

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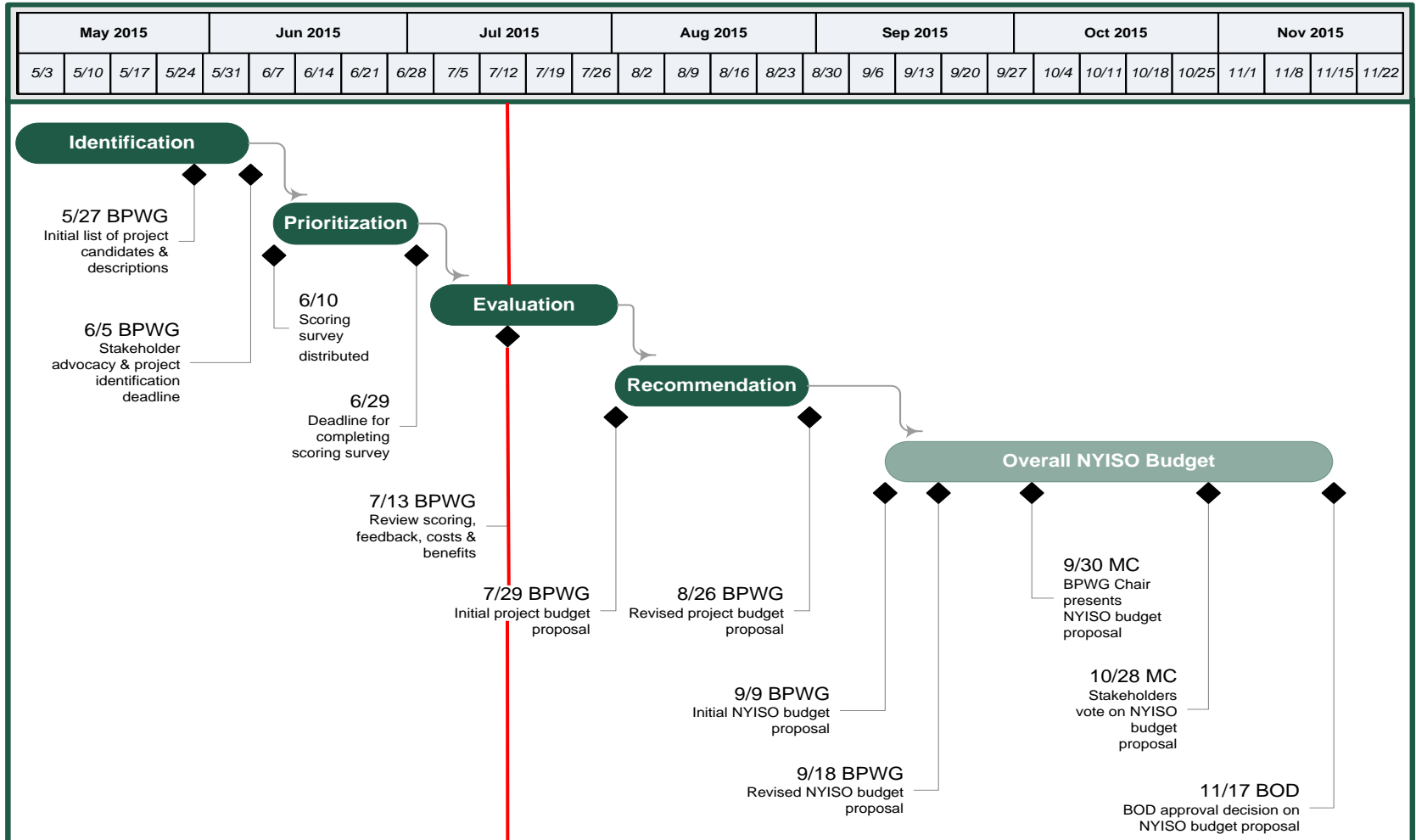
Budget & Priorities Working Group

July 13, 2015
Krey Corporate Center

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2016 Project Selection Process

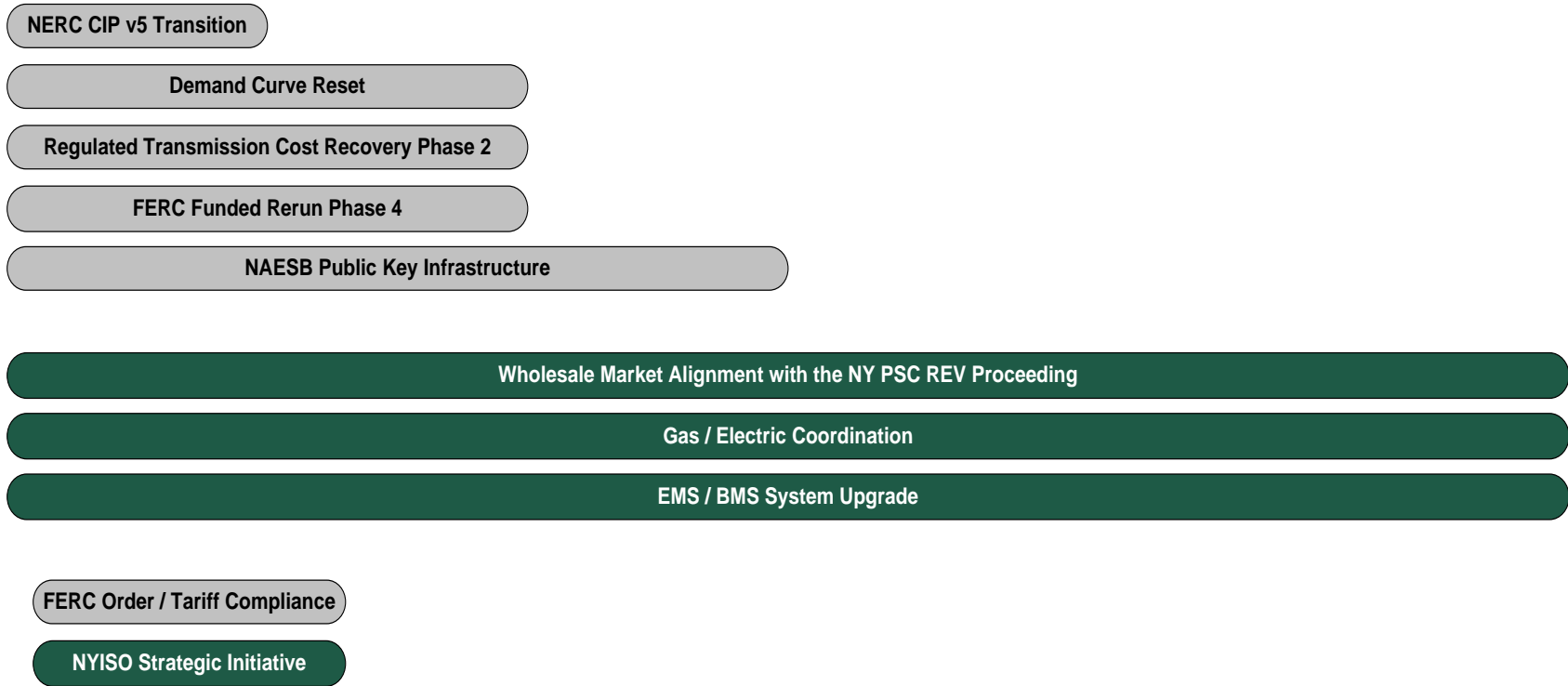| Phase	Description
Identification	This phase involves developing the list of project candidates taking into consideration regulatory obligations, strategic initiatives, State of the Market recommendations, necessary infrastructure enhancements, product plans, stakeholder feedback, etc.
Prioritization	The phase involves the NYISO and stakeholder scoring of projects. The NYISO scores projects using objective criteria that reflects strategic alignment, expected outcomes, risks, and ability to execute. Stakeholders score projects based on their organizational priorities via a survey mechanism.
Evaluation	This phase involves performing a feasibility assessment based on detailed direct cost and labor estimates.
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.

2016 Project Prioritization & Budgeting Timeline

May 2015				Jun 2015				Jul 2015				Aug 2015				Sep 2015				Oct 2015				Nov 2015			
5/3	5/10	5/17	5/24	5/31	6/7	6/14	6/21	6/28	7/5	7/12	7/19	7/26	8/2	8/9	8/16	8/23	8/30	9/6	9/13	9/20	9/27	10/4	10/11	10/18	10/25	11/1	11/8	11/15	11/22

Identification

Prioritization

Evaluation

Recommendation

Overall NYISO Budget

5/27 BPWG
Initial list of project
candidates &
descriptions

6/5 BPWG
Stakeholder
advocacy & project
identification
deadline

6/10
Scoring
survey
distributed

6/29
Deadline for
completing
scoring survey

7/13 BPWG
Review scoring,
feedback, costs &
benefits

7/29 BPWG
Initial project budget
proposal

8/26 BPWG
Revised project budget
proposal

9/9 BPWG
Initial NYISO budget
proposal

9/18 BPWG
Revised NYISO budget
proposal

9/30 MC
BPWG Chair
presents
NYISO budget
proposal

10/28 MC
Stakeholders
vote on NYISO
budget
proposal

11/17 BOD
BOD approval decision on
NYISO budget proposal

2016 – 2018 Strategic Initiatives & FERC Orders

2016	2017	2018

NERC CIP v5 Transition

Demand Curve Reset

Regulated Transmission Cost Recovery Phase 2

FERC Funded Rerun Phase 4

NAESB Public Key Infrastructure

Wholesale Market Alignment with the NY PSC REV Proceeding

Gas / Electric Coordination

EMS / BMS System Upgrade

FERC Order / Tariff Compliance

NYISO Strategic Initiative

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2016 Project Candidates

| Project | NYISO | Priority Scores | | | Deliverable | Estimated Cost (in millions $) | | | | Benefits |
		Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consultants	Total	
Business Intelligence Products										
Enterprise Information Management: Data Integration Phase 2	457	2	1	1	Deploy	0.30	0.00	0.00	0.30	• Improved impact analysis capabilities • Standardizing all data extraction and transformation under one technology
Enterprise Information Management: Analytics Environments	385	0	0	0	Study Complete	0.08	0.00	0.00	0.08	• Improving performance and reliability of infrastructure • Reduce support and licensing costs for SAS • Provide scalable SAS Server environment to support growing data analysis needs
Public Website Refresh	195	30	2	1	Architecture Design	0.17	0.00	0.30	0.47	• Improve usability
Issue Tracking List for Public Website	193	5	1	0	Architecture Design	0.04	0.05	0.03	0.12	• Ease of access to related documentation
Capacity Market Products										
DMNC Test Validation Automation	247	30	3	3	Software Design	0.12	0.00	0.00	0.12	• ICAP AMS enhanced to accept DMNC test data from suppliers. • Real time validation of data • Reduced risk of errors from automation of manual processes
ICAP AMS Enhancements Phase 3	385	15	2	1	Deploy	0.34	0.05	0.20	0.59	• Automates manual processes to reduce risk of errors • Adds additional data elements to ICAP AMS for MPs
ICAP Auction Validation and Reporting Phase 3	247	10	2	2	Functional Requirements	0.15	0.00	0.00	0.15	• Adds additional data to reporting universe in support of FERC annual report and ICAP Auction validation reports

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2016 Project Candidates

NEW YORK INDEPENDENT SYSTEM OPERATOR

| Project | NYISO | Priority Scores | | | Deliverable | Estimated Cost (in millions $) | | | | Benefits |
		Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consultants	Total	
Capacity Market Products (continued)										
ICAP Reference System Phase 2	397	5	1	1	Software Design	0.10	0.00	0.00	0.10	• Improves transparency • Expands functionality to additional processes
Reactive Test Data Management System	395	5	1	1	Deploy	0.22	0.00	0.00	0.22	• Provides system or VSS Suppliers to supply test data and get automated validation responses. • Reduced risk of error from automation of manual processes
Automate ICAP Import Rights	339	10	2	2	Functional Requirements	0.10	0.00	0.00	0.10	• Streamlined process for procurement of ICAP Import Rights • Replace fax technology with web
Demand Curve Reset	1000	63	4	3	Study Complete	0.65	0.00	1.10	1.75	• Updated price signals, reflecting the latest net cost of new entry estimates
Winter DMNC Temperature Adjustments	375	55	4	1	Market Design Approved	0.02	0.00	0.00	0.02	• Enhance measurement of Installed Capacity available for typical winter peak conditions
ICAP Import Rights Design	281	95	6	3	Market Design Concept	0.05	0.00	0.00	0.05	• Enhance market efficiency • May result in better utilization of import capabilities
Performance Assurance – Study	325	0	0	0	Study Complete	0.07	0.00	0.00	0.07	• Incent intra-day operational flexibility • Promote increased resource availability and performance
Alternative Methods for Calculating the Locational Capacity Requirements	743	112	9	4	Market Design Concept	0.11	0.00	0.00	0.11	• Enhance market efficiency • More accurate BSM forecasts • May result in lower cost to load
Modify Demand Curve to Minimize Costs of Satisfying LCR (SOM)	239	30	3	2	Market Design Concept	0.12	0.00	0.25	0.37	• Enhance market efficiency • May reduce costs of meeting LCRs

2016 Project Candidates

Project	Priority Scores				Deliverable	Estimated Cost (in millions $)				Benefits
	NYISO	Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consul tants	Total	
Capacity Market Products (continued)										
Internal Capacity Deliverability Rights for Transmission Upgrades into a Local Area (SOM)	408	45	3	2	Market Design Concept	0.12	0.00	0.25	0.37	• Allow for Capacity Market incentive for economic transmission investments
Locational Planning Requirements – Pre-define Capacity zones (SOM)	376	95	8	2	Market Design Concept	0.10	0.00	0.00	0.10	• May provide more timely price signals to incent investment needed to meet reliability requirements.
Expand BSM to Address Uneconomic Transmission Investment (SOM)	145	80	5	2	Market Design Concept	0.05	0.00	0.25	0.30	• Enhance market efficiency • May defer investment in uneconomic transmission projects
Reform Offer Floor for Mitigated Projects (SOM)	240	105	6	2	Market Design Approved	0.05	0.00	0.00	0.05	• Strengthens the BSM measures by raising the offer default offer floor to the cost of new entry
Behind the Meter: Net Generation Integration	642	744	19	3	Development Complete	0.68	0.00	0.00	0.68	• Improve market access to behind-the-meter supply sources with excess energy and capacity • Improve operational flexibility through access to additional supply resources
Develop Rules for the Elimination of Capacity Zones or Achievement of Price Convergence	416	233	12	5	Market Design Approved	0.08	0.00	0.00	0.08	• May address price convergence issues associated with Locational requirements.
Model Zone K as Export Constrained	434	85	6	3	Market Design Concept	0.11	0.00	0.00	0.11	• May increase market efficiency by recognizing the reliability value of Zone K capacity up to the export limit to the G-J Locality
External CRIS Rights for non-UDR Transmission Expansion	239	55	3	2	Market Design Approved	0.13	0.00	0.00	0.13	• Grant MPs funding upgrades a capacity benefit associate with the upgrade • May incent economic transmission

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2016 Project Candidates

Project	NYISO	Priority Scores Stake-holder	Org Count	Sector Count	Deliverable	Estimated Cost (in millions $) NYISO Labor	Capital	Consultants	Total	Benefits
Capacity Market Products (continued)										
Mitigation Rules for Uneconomic Retention of Capacity (SOM)	295	160	8	2	Market Design Concept	0.05	0.00	0.00	0.05	• Helps ensure the ICAP market continues to incent investment n economic transmission, generation and DR resources
Mitigation Rules for Uneconomic Investment Outside the G-J Locality (SOM)	235	160	8	2	Market Design Concept	0.03	0.00	0.00	0.03	• Prevents artificial and uneconomic suppression of market prices in ROS and LI
Limited Application of Buyer Side Mitigation by Technology	298	35	2	1	Market Design Concept	0.06	0.00	0.00	0.06	• Reduces the number of mitigation exemption tests to be performed by MMA, by limiting evaluations to those projects that have the ability to exercise market power.
Renewables Exemption	526	210	14	5	Market Design Concept	0.04	0.00	0.00	0.04	• Decreases risk of over mitigation of resources unlikely to be selected for exercising of market power.
Self-Supply Mitigation Measures	211	70	5	2	Market Design Concept	0.04	0.00	0.00	0.04	• Eliminates a potential barrier to entry for self supply developers not capable of exercising market power
Repowering Exemption	332	55	5	2	Market Design Approved	0.04	0.00	0.00	0.04	• Defines rules under which a repowering project may be exempt from BSM
Competitive Entry Exemption for Additional CRIS	328	5	1	1	Market Design Concept	0.03	0.00	0.00	0.03	• Exempts un-subsidized, competitive entrants seeking additional CRIS, who have no incentive to suppress capacity market prices, from being subject to mitigation
Modify the Pivotal Supplier Test (SOM)	408	10	1	1	Market Design Approved	0.03	0.00	0.00	0.03	• Applies a consistent set of rules in the J and G-J localities

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2016 Project Candidates

Project	NYISO	Priority Scores Stake-holder	Org Count	Sector Count	Deliverable	Estimated Cost (in millions $) NYISO Labor	Capital	Consultants	Total	Benefits
Capacity Market Products (continued)										
Modify Treatment of Units Being Replaced, Mothballed and Retired in Forecasts of ICAP Prices and Net Revenues (SOM)	548	12	3	2	Market Design Approved	0.05	0.00	0.00	0.05	• More accurate EAS forecasts decreasing over/under mitigation risk
Enhanced EAS Forecasting Engine	269	0	0	0	Market Design Concept	0.03	0.00	0.00	0.03	• Improved efficiency/reduced modeling time in making EAS forecasts • More accurate EAS forecasts decreasing over/under mitigation risk
BSM Part A and Part B Test Enhancements	389	5	1	1	Market Design Approved	0.02	0.00	0.00	0.02	• More accurate ICAP and EAS revenue forecast
Develop Physical Withholding Rules for UDRs	348	0	0	0	Market Design Concept	0.02	0.00	0.00	0.02	• Prevents UDR's that are part of a pivotal portfolio from exercising market power
Critical Operating Day Incentive	374	95	9	3	Market Design Approved	0.08	0.00	0.00	0.08	• Enhances reliability by providing incentives for capacity suppliers to ' perform on critical days
Outage State Penalty for Failure to Return to Service to Meet a Reliability Need	400	40	7	3	Market Design Approved	0.02	0.00	0.00	0.02	• May enhance reliability by providing a consequence to generators that fail to return to service to meet a reliability need.
RMR Cost Recovery	840	N/A	N/A	N/A	Functional Requirements	0.51	0.00	0.10	0.61	• Enhances reliability by establishing rules and compensation for a generator that is seeking to deactivate, but is required to remain in service to meet a reliability need

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2016 Project Candidates

NEW YORK INDEPENDENT SYSTEM OPERATOR

Project	NYISO	Priority Scores Stake-holder	Org Count	Sector Count	Deliverable	Estimated Cost (in millions $) NYISO Labor	Capital	Consultants	Total	Benefits
Demand Response										
Demand Response in the Real-Time Energy Market	445	306	14	2	Market Design Approved	0.17	0.00	0.00	0.17	• FERC Order • Demand Response as an alternative dispatchable supply resource
DRIS and DR Reporting Enhancements for DR Program Administration	317	15	2	1	Deploy	0.22	0.00	0.00	0.22	• Automation of manual processes to reduce potential for errors • Improve data access and reporting capabilities
Demand Response Contingency Implementation: Order 745 or DR Backstop Design	489	70	5	2	Deploy	0.37	0.00	0.00	0.37	• Order 745: FERC Order, includes improved baseline methodology and cost allocation • DR Backstop: Continues to recognize demand response in NYISO's capacity market
Evaluation of the Bulk Power System and market Impacts of Increased DER Penetration	155	221	10	3	Study Complete	0.10	0.00	0.40	0.50	• To understand the potential physical and market impacts of increased DER penetration
SCR Performance Obligations: Change Minimum Performance Obligation from 4 to 6 Hours	437	0	0	0	Market Design Concept	0.08	0.00	0.00	0.08	• Enhanced operational certainty for demand response performance

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2016 Project Candidates

Project	Priority Scores				Deliverable	Estimated Cost (in millions $)				Benefits
	NYISO	Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consultants	Total	
Energy Market Products										
Fuel Assurance – Constrained Fuel Supply Bidding (SOM)	638	70	7	4	Functional Requirements	0.08	0.00	0.00	0.08	• More efficient scheduling of resources with energy or fuel limitations
Energy Storage Optimization	523	82	5	4	Market Design Concept	0.06	0.00	0.00	0.06	• More efficient scheduling and better utilization of storage resources
Targeted Virtual Trading	325	90	6	1	Market Design Approved	0.04	0.00	0.00	0.04	• Improved market efficiency • Enhanced market functionality
Linked Virtual Buy–Sell Transactions	418	320	8	1	Functional Requirements	0.09	0.00	0.00	0.09	• Improved market efficiency • Enhanced market functionality
Long Island PAR Optimization & Financial Rights (SOM)	419	5	1	1	Market Design Approved	0.07	0.00	0.00	0.07	• More efficient scheduling • Reduction in DAM production costs
Hybrid GT Pricing Improvements (SOM)	510	75	8	4	Market Design Approved	0.07	0.00	0.00	0.07	• Improved price signals • More efficient real-time scheduling
RTC–RTD Forward Horizon Coordination Improvements (SOM)	535	35	3	2	Market Design Approved	0.07	0.00	0.00	0.07	• Improved price signals • More efficient real-time scheduling • Reduced systematic price volatility
Enhanced PAR Modeling (SOM)	363	15	1	1	Market Design Concept	0.07	0.00	0.00	0.07	• More efficient scheduling through better assumptions about flows over PAR-controlled lines and loop flows • Reduced systematic price volatility
Review of RACT Compliance Plans (SOM)	238	0	0	0	Study Complete	0.03	0.00	0.15	0.18	• Increased visibility into costs of environmental compliance
Wholesale Market Alignment with the NY PSC REV Proceeding	786	190	10	4	Market Design Concept	0.14	0.25	0.20	0.59	• Improved market efficiency and promotes reliability by proactively integrating DERs into the market structure become they become prevalent
Fuel Limited Reserves (SOM)	387	30	5	3	Market Design Concept	0.05	0.00	0.00	0.05	• More efficient scheduling of reserves • Improved price signals

2016 Project Candidates

Project	NYISO	Priority Scores			Deliverable	Estimated Cost (in millions $)				Benefits
		Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consultants	Total	
Energy Market Products (continued)										
5-Minute Transaction Scheduling (SOM)	295	140	3	1	Market Design Approved	0.05	0.00	0.00	0.05	• Improved price signals • More efficient scheduling • Reduce residuals
15-Minute Transaction Scheduling – HQ Cedars (SOM)	311	10	1	1	Functional Requirements	0.02	0.00	0.00	0.02	• Improved price signals • More efficient scheduling • Reduce residuals
15-Minute Transaction Scheduling – IESO (SOM)	415	0	0	0	Market Design Concept	0.07	0.00	0.00	0.07	• Improved price signals • More efficient scheduling • Reduce residuals
Enterprise Products										
NERC CIP v5 Planning & Conversion ⏼Phase II	710	0	0	0	Study Complete	0.46	0.20	0.16	0.82	• Complete NERC CIP Compliance • Allow NYISO to be CIP v5 compliant
NAESB Public Key Infrastructure	710	0	0	0	Deploy	0.50	0.03	0.00	0.52	• Meet FERC Compliance obligation.
Market Test Environment	207	0	0	0	Deploy	0.09	0.29	0.00	0.38	• Permanent external-facing market test environment for MP to conduct testing against a non-production environment.
Storage Infrastructure Redesign Phase II	510	0	0	0	Deploy	0.14	4.37	0.08	4.58	• Allows retirement of older technologies • Reduces cost of ownership
Identity and Access Management (IAM) ⏼Phase V	480	0	0	0	Deploy	0.23	0.32	0.10	0.65	• Improved availability and security • Improves ability to meet CIP standards
Application Platform Upgrade Phase III	523	0	0	0	Deploy	0.59	0.00	0.00	0.59	• Better support for technology • Better performance • Aligns with NYISO long-term vision
Enterprise Monitoring Phase III	446	0	0	0	Deploy	0.28	0.16	0.05	0.49	• Provide better situational awareness • Reduce risk of outages

2016 Project Candidates

| Project | NYISO | Priority Scores | | | Deliverable | Estimated Cost (in millions $) | | | | Benefits |
		Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consultants	Total	
Enterprise Products (continued)										
Stakeholder Services Suite Phase II	256	0	0	0	Functional Requirements	0.06	0.00	0.09	0.14	• Improved customer experience • Improved contact management
Integration Platform Availability Improvements	404	0	0	0	Deploy	0.22	0.17	0.07	0.46	• Improve failover times • Improved vendor support
Learning Management System	166	0	0	0	Functional Requirements	0.06	0.00	0.05	0.11	• Centralized view of training needs • Creation of training plans
Service Management Enhancements	250	0	0	0	Functional Requirements	0.19	0.00	0.05	0.24	• Improved defect tracking
Database Upgrades and Performance Improvements	522	10	1	1	Deploy	0.45	0.40	0.00	0.85	• Improved performance of various databases • Upgrade to latest version of Oracle
Telephony System Upgrade	450	0	0	0	Deploy	0.40	0.70	0.34	1.44	• Improve cost effectiveness • Enhance service levels
Enterprise Job Scheduling Upgrade	408	0	0	0	Deploy	0.13	0.08	0.09	0.30	• Continued vendor support • Comprehensive tool implementation
Network Proxy Upgrade	390	0	0	0	Deploy	0.05	0.20	0.00	0.25	• Improved security posture • Improved performance
Laptop/Desktop Refresh and Migration	322	0	0	0	Deploy	0.29	0.33	0.15	0.77	• Continued vendor support • Improved software
Content Management System Upgrade and Consolidation	334	0	0	0	Study Complete	0.11	0.02	0.00	0.12	• Reduced licensing costs • Allow for the retirement of aging infrastructure
Email Security Enhancements	348	0	0	0	Deploy	0.05	0.00	0.00	0.05	• Reduce risk • Improve performance
Conference Room Technology Refresh	166	0	0	0	Deploy	0.05	0.18	0.01	0.24	• Upgrade technology • Improved wireless performance
Enterprise Project Management (EPM) Upgrade	320	0	0	0	Deploy	0.27	0.00	0.00	0.27	• Improved vendor support • Improved performance • Decreased cost

2016 Project Candidates

| Project | NYISO | Priority Scores | | | Deliverable | Estimated Cost (in millions $) | | | | Benefits |
		Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consultants	Total	
Finance Products										
Regulated Transmission Cost Recovery - Phase 2	380	0	0	0	Software Design	0.21	0.00	0.00	0.21	• Support planning • Meet public policy needs
Day Ahead Margin Assurance Payment (DAMAP) Enhancements	248	30	3	2	Development Complete	0.13	0.00	0.00	0.13	• Improve settlement calculation
North Subzone Redistricting	402	35	3	2	Functional Requirements	0.12	0.00	0.00	0.12	• Reduce Unaccounted For Energy
Rate Schedule 1 Technology Automation	407	0	0	0	Deploy	0.35	0.00	0.00	0.35	• Reduce manual processes • Improve efficiencies, reduce risk
Settlements Sub Accounts	121	145	3	1	Functional Requirements	0.09	0.00	0.00	0.09	• Additional capabilities for DSS
CMS Financial Risk Assessment Tools	381	0	0	0	Deploy	0.29	0.00	0.00	0.29	• Reduce risk • Reduce manual processes
CMS Ratings Automation	381	0	0	0	Deploy	0.24	0.00	0.00	0.24	• Reduce manual processes
CMS Unbalanced Trading Hubs	167	0	0	0	Functional Requirements	0.12	0.00	0.00	0.12	• Improve market design
Foreign Guarantees	155	130	2	1	Market Design Concept	0.05	0.00	0.00	0.05	• Broaden credit availability
Budget versus Actual Automation	163	0	0	0	Deploy	0.13	0.03	0.00	0.16	• Improve usability • Improve visibility
RFP Evaluation Tool	205	0	0	0	Deploy	0.09	0.08	0.05	0.22	• Standardization of process
Liquidation of Defaulting TCC Holders Portfolio	205	0	0	0	Market Design Concept	0.03	0.00	0.00	0.03	• Improve process

2016 Project Candidates

| Project | NYISO | Priority Scores | | | Deliverable | Estimated Cost (in millions $) | | | | Benefits |
		Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consultants	Total	
Operations & Reliability Products										
Calculations of BAL Standards	478	0	0	0	Deploy	0.05	0.00	0.07	0.12	• NERC requirement
Breaker Level Market Modeling	418	5	1	1	Deploy	0.07	0.00	0.23	0.29	• Improve price signals • Reduce market inefficiency
Transmission Outage Application Platform Upgrade	497	10	2	2	Development Complete	0.18	0.30	0.10	0.58	• Supportability • Avoids obsolescence
EMS BMS System Upgrade	850	15	1	0	Functional Requirements	2.29	1.70	2.78	6.77	• Increased supportability • Increased Ranger platform stability
Coordinated Transaction Scheduling with ISO-NE (SOM)	450	70	3	1	Deploy	0.17	0.00	0.00	0.17	• $17M/year in Production Cost Savings (D. Patton – Potomac Economics)
MetrixIDR (Load Forecaster Upgrade)	755	10	1	0	Deploy	0.16	0.00	0.10	0.26	• Supportability • Allows Operators to focus on the forecast, not complex software
Scheduling & Pricing – Comprehensive Scarcity Pricing (SOM)	364	30	3	1	Deploy	0.45	0.00	0.15	0.60	• Increase in the efficiency of internal and external price signals • Incenting fuel assurance
Comprehensive Scarcity Pricing –Ranger DRIS Integration	383	5	1	0	Deploy	0.18	0.00	0.00	0.18	• Increased productivity • Reduces risk from manual input
Transmission Service Charges Rate Update	318	5	1	1	Deploy	0.19	0.00	0.00	0.19	• Improved supportability
Interconnection Reliability Operating Limits IROL Visualization	318	10	1	0	Deploy	0.09	0.00	0.05	0.14	• Improve operational awareness • Redundancy for periods of Ranger unavailability

2016 Project Candidates

| Project | NYISO | Priority Scores | | | Deliverable | Estimated Cost (in millions $) | | | | Benefits |
		Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consultants	Total	
Operations & Reliability Products (continued)										
Smart Grid Visualization	280	0	0	0	Deploy	0.10	0.00	0.20	0.30	• Improve operational awareness
NERC Certification Task Management	430	0	0	0	Deploy	0.06	0.00	0.25	0.31	• Improved efficiency of NERC reporting
Price Validation Test Automation	290	0	0	0	Deploy	0.28	0.25	0.00	0.53	• Enhanced automated testing functionality
PCC Visualization Options	301	0	0	0	Study Complete	0.03	0.00	0.10	0.13	• Avoids obsolescence of backup control center
CTS - NE System Audit	150	0	0	0	Study Complete	0.08	0.00	0.30	0.38	• Verification of functionality
Synchrophasor Product Upgrade	253	0	0	0	Deploy	0.06	0.20	0.00	0.26	• Maintains smart grid investment
NERC IDC System Tool Modification	256	0	0	0	Deploy	0.03	0.00	0.00	0.03	• Improved productivity
DAM Posting Improvements	284	110	6	2	Deploy	0.14	0.00	0.00	0.14	• Coordination with neighboring control areas
FERC Funded Rerun Phase 4	456	0	0	0	Development Complete	0.22	0.00	0.00	0.22	• Improved efficiency of meeting FERC Office of Enforcement request
2016 Reference Level Software Enhancements	380	15	3	2	Deploy	0.25	0.00	0.15	0.40	• Improved alignment of Reference Prices with Gas Market • Increased user flexibility
Market Operations Report Automation	256	0	0	0	Development Complete	0.09	0.00	0.00	0.09	• Improve efficiency of MMA tasks
Modeling 100+kV Transmission Constraints (SOM)	251	145	4	3	Deploy	0.18	0.00	0.00	0.18	• Improve alignment of markets and EMS model

2016 Project Candidates

Project	Priority Scores				Deliverable	Estimated Cost (in millions $)				Benefits
	NYISO	Stake-holder	Org Count	Sector Count		NYISO Labor	Capital	Consultants	Total	
Planning Products										
Order 1000	554	30	2	1	Study Complete	0.08	0.00	0.00	0.08	• Continued compliance with FERC order • Implementation of procedures enhancing the transmission planning and reliability planning process
Solar Forecasting Initiatives	475	145	11	4	Development Complete	0.23	0.00	0.20	0.43	• Provides load forecast visibility to New York install Solar
Generator Reporting Enhancements	282	5	1	1	Functional Requirements	0.11	0.00	0.00	0.11	• Improved efficiency in reporting through automation
Congestion Reporting Enhancements	242	50	4	1	Functional Requirements	0.05	0.00	0.00	0.05	• Improved efficiency in reporting through automation
TCC Products										
TCC AMS Round Type and Upgrade	368	0	0	0	Deploy	0.16	0.00	0.00	0.16	• Allows TCC AMS to be used for round analysis inquiries • Improves efficiency
TCC Balance-of-Period (TCC AMS, TCC AVS & CMS)	427	180	5	1	Development Complete	0.83	0.13	0.10	1.05	• Evolves TCC Market to allow MPs to reconfigure remaining months in a capability period. • Extends TCC Auction validations for BoP format • Extends credit policy to hold collateral for months remaining in capability period
On-Peak/Off-Peak TCCs	197	170	7	1	Market Design Concept	0.03	0.00	0.00	0.03	• Investigates benefits of offering separate On-Peak / Off Peak TCCs

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Next Steps

- **Ongoing dialogue with stakeholders**
- **Review initial project budget proposal at July 29th BPWG**
- **Review revised project budget proposal at August 26th BPWG**

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.

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