

2015 Project Prioritization and Budgeting Process

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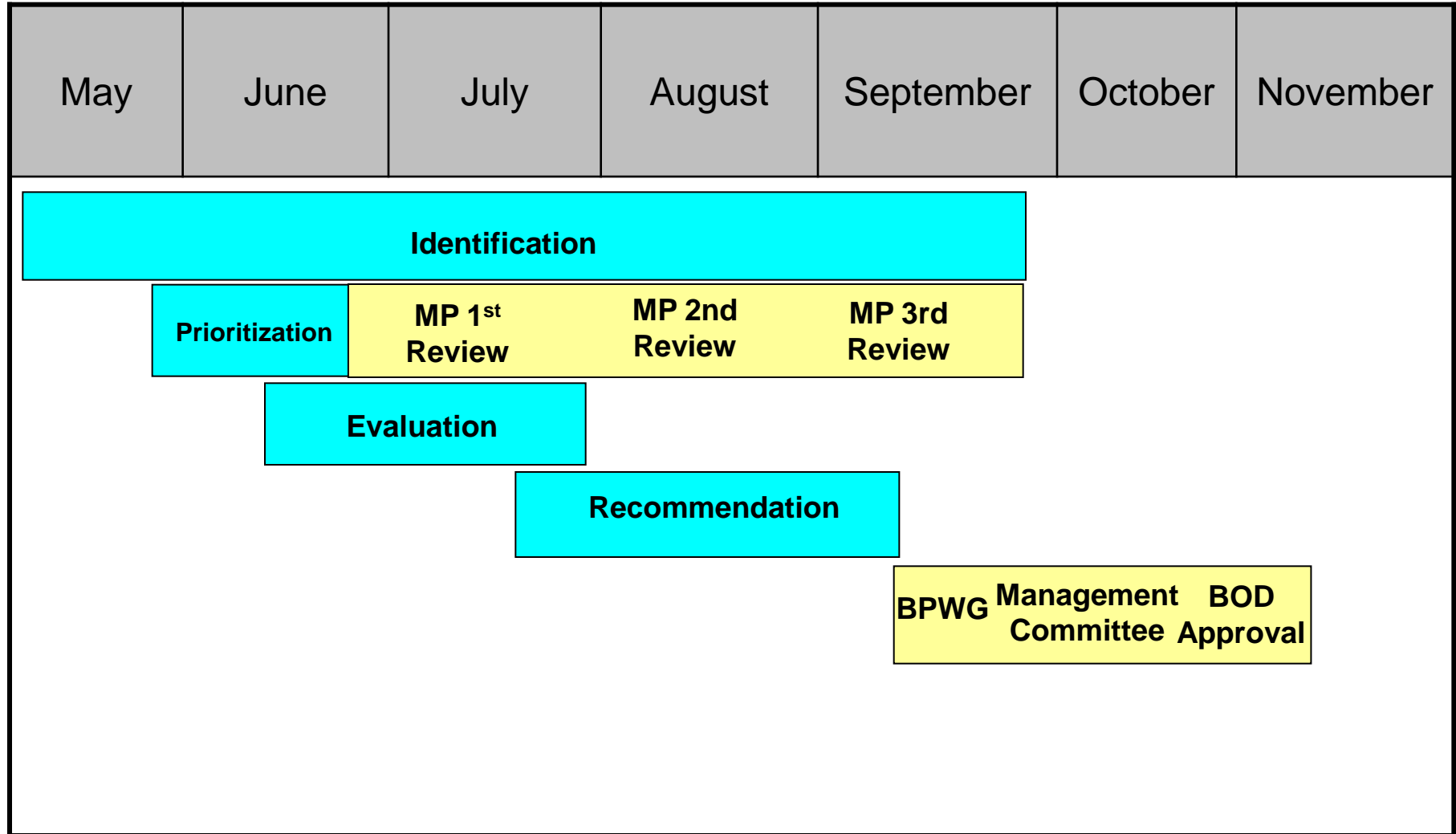
July 25, 2014

Krey Corporate Center

2015 Project Selection Process

Phase	Definition
Identification	<ul style="list-style-type: none"> ◆ FERC Orders ◆ Existing tariff obligations ◆ Strategic Initiatives ◆ State of the Market recommendations ◆ Necessary infrastructure enhancements ◆ Feedback from MPs throughout the year ◆ Product Plans, Market Design Evolution and Strategic Plan
Prioritization	Evaluate projects using objective criteria that reflects the NYISO strategy, stakeholder interest, and potential impacts to budget and resources
Evaluation	Conduct feasibility assessment – detailed estimates of hardware, software, consultancy and staff
Recommendation	Refine 2015 proposed projects based on feasibility assessment

2015 Project Prioritization and Budgeting Timeline



Stakeholder Feedback Since July 9

Stakeholder Input Received

Stakeholder Input	NYISO Response
<p>Noted that the NYISO committed to FERC that it would address ROS Mitigation for Uneconomic Entry in the stakeholder process. Request to add this to the project candidate list.</p>	<p>The NYISO disagrees that it committed to pursue such a project.</p>
<p>Request to add Annual Capacity Market to project candidate list to continue the development work that may result from this year's effort.</p>	<p>Both Annual and Forward Capacity Market (FCM) concepts and feasibility will be discussed with stakeholders in 2014. If there is sufficient stakeholder support to move forward, the NYISO will include an Annual or FCM detailed market design for 2015 before the NYISO project list and budget is finalized.</p>
<p>Request to add Minimum Criteria for Capacity Provider to project candidate list.</p>	<p>Included in Fuel Assurance: Market Design Concepts under Capacity Markets.</p>
<p>Request to break out Locational Planning Requirements - Pre-Define Capacity Zones (SOM) and Rules to Eliminate Zones separately in the project candidate list.</p>	<p>Determining rules to eliminate zones is linked to the criteria for creating zones, therefore, these two issues should not be treated as separate projects.</p>

Stakeholder Input Received

Stakeholder Input	NYISO Response
Request to expand the naming of Rules to Eliminate Capacity Zones to include “or achieve price convergence”.	Updated under Capacity Products.
Request to rename Incremental External CRIS Rights for Non-UDR Transmission Expansion “Grant EXTERNAL CRIS Rights” through the Class Year studies and note that there is a process to obtain “internal” CRIS through the Class Year studies.	Updated under Capacity Products.
Request to rename Comprehensive Shortage Pricing – Phase II to reflect that it is addressing Scarcity pricing.	Updated under Energy Market Products.
<p>FERC Order No. 1000 / Methodology for Allocating the Costs of Resolving Transmission Security Violations</p> <p>The NYISO will initiate a stakeholder review process to develop a cost allocation methodology and file with Commission through a Section 205 filing by the end of the third quarter of 2014. This will enable the methodology to be in place by the time the NYISO begins to consider possible solutions to needs identified in the next RNA. If FERC grants a delay in the implementation of these procedures and it does not get done this year than it should be put on the project list for next year.</p>	Included in Regulated Transmission Cost Recovery under Finance Products.
Request to add Post Day Ahead and Real-Time Line De-rates Daily to project candidate list.	Added under Operations & Reliability Products.

2015 Prioritization Criteria

PRIORITIZATION CRITERIA							
#	Category	Criteria	Criteria Weight (1-10)	HIGH	MEDIUM	LOW	NONE
				10	7	3	0
1	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
2		Leader in Market Design	10	Significantly improves NYISO Market Design	Moderately improves NYISO Market Design	Minimally improves NYISO Market Design	None
3		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
4		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
5	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)
6		Appeal	10	Broad Customer and NYISO desirability.	Desired by Customer	Desired by NYISO	Not Desired by Customer & Not Desired by NYISO
7		Market Efficiency	10	Significant improvement	Moderate improvement	Minimal improvement	No impact
8		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
9	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
10		Business Process (inclusive of technology impact on business process)	10	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
11		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
		Sum	100				
Execution							
1	Execution (If we do this project)	Cost	4	project, <\$100k	>\$100k, <\$500k	>\$500, <\$1M	>\$1M
2		Multi-Year Dependency	6	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
3		Complexity of Business and Technology	4	One area/technology	Cross-functional < 3 Areas/Technology	Highly Cross-functional/ Re-engineering	Complex, solution and impact unknown
4		Compliance	10	Non-appealable, ordered by FERC / desired by NYISO and MP	Ordered by FERC, undesired by NYISO or MP	Potential order identified by FERC	No regulatory impact

2015 Preliminary Project Candidates

Priority Scores

- ◆ **Individual projects scored against objective criteria**
- ◆ **Objective criteria aligned with NYISO Strategic Plan**
- ◆ **High level project descriptions utilized as a basis for potential scope for evaluation purposes**
- ◆ **Individual project priority scores provide indication of relative ranking**

Business Intelligence Products		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Mandatory Projects*</i>		
NY Generator Attribute Tracking (GATS) Data Feed	Deployment	293
<i>Continuing from 2014</i>		
OASIS Postings Technology Upgrade Phase 2	Deployment	338
DSS Business Objects Upgrade	Deployment	214
<i>Projects for Prioritization</i>		
Public Website Renewables Page	Deployment	230
Public Website NYISO Budget and Value Proposition Pages	Deployment	230
Enterprise Information Mgmt: Data Integration	Deployment	305

*Mandatory = FERC Order, Strategic Initiative, Tariff Obligation, or Dependency To Support Order, Initiative, or Obligation

Capacity Products		2015 Candidates
	Proposed Deliverable	Priority Score
<i>Mandatory Projects*</i>		
Modify the Pivotal Supplier Tests (SOM)	Deployment	790
<i>Continuing from 2014</i>		
ICAP AMS Enhancements Phase 2	Deployment	783
<i>Projects for Prioritization</i>		
DMNC Test Validation Automation	Functional Requirements	396
Reactive Test Data Collection and Tracking	Software Design	609
ICAP Reference System Phase 2	Functional Requirements	467
ICAP Auction Validating and Reporting Phase 2	Deployment	781
External CRIS Rights for Non-UDR Transmission Expansion	Market Design Concept	199
Locational Planning Requirements - Pre-define Capacity Zones (SOM) and Develop Rules for the Elimination of Capacity Zones or Achievement of Price Convergence	Market Design Approved	329
Behind the Meter: Net Generator Model	Market Design Concept	362
Expand BSM measures to Address the Effects of Uneconomic Transmission Investment	Market Design Concept	185

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Capacity Products (continued)		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Projects for Prioritization</i>		
Modify Demand Curve to Minimize Costs of Satisfying LCR & Incent Siting Capacity Where It Provides the Greatest Reliability Benefit (2014 SOM 1c)	Market Design Concept	199
Winter DMNC Temperature Adjustments	Market Design Approved	430
ICAP Import Rights Design Re-assessment	Market Design Approved	311
Grant Internal Capacity Deliverability Rights for Transmission Upgrades into a Local Area (SOM)	Market Design Concept	199
Fuel Assurance: Market Design Concepts	Market Design Concept	539
ICAP AMS Enhancements Phase 3	Development Complete	471

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Demand Response Products		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Mandatory Projects*</i>		
Demand Response in Real-Time Energy Market	Functional Requirements	737
FERC Order 745: Monthly Net Benefits Test	Deployment	437
<i>Continuing from 2014</i>		
SCR Performance Obligations	Deployment	653
Metering Infrastructure Requirements for Demand Response	Functional Requirements	485
<i>Projects for Prioritization</i>		
DRIS Enhancements for DR Program Administration	Deployment	492
Market Rule Changes to SCR Baselines	Market Design Approved	646
Business Requirements for Distributed Energy Resources	Market Design Approved	396

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Energy Market Products		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Continuing from 2014</i>		
Scheduling & Pricing: Comprehensive Shortage Pricing (SOM)	Deployment	628
Coordinated Transaction Scheduling with ISO-NE (SOM)	Deployment	741
Scheduling & Pricing: Comprehensive Scarcity Pricing (SOM)	Development Complete	626
<i>Projects for Prioritization</i>		
Fuel Assurance: Market Concepts	Market Design Concept	521
Gas-Electric Coordination: Constrained Fuel Supply Bidding (SOM)	Market Design Concept	483
Behind the Meter: Net Generation Model	Market Design Approved	578
Disaggregated Virtual Trading	Functional Requirements	385
External Transaction Balancing Protection	Market Design Concept	483
Energy Storage Optimization	Market Design Concept	361
5 minute Transaction Scheduling	Market Design Concept	359
Scheduling & Pricing: RTD/RTC Forward Horizon Coordination Improvements (SOM)	Market Design Concept	303

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Energy Market Products (continued)		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Projects for Prioritization</i>		
Long Island PAR Optimization (SOM)	Market Design Approved	319
Scheduling & Pricing: Hybrid GT Pricing Improvements (SOM)	Market Design Approved	301
Virtual Trading using Spread Bids	Market Design Concept	303

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Enterprise Products		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Mandatory Projects*</i>		
NERC CIP v5 Planning & Conversion	Study Complete	629
NERC CIP-005 v5 Electronic Security Perimeter	Deployment	612
NERC CIP-010 v5 Configuration Management	Deployment	623
NERC CIP-011 v5 Information Protection	Deployment	619
<i>Continuing from 2014</i>		
Enterprise Project Management Phase IV	Deployment	365
Stakeholder Services Suite Phase II	Deployment	384
Identity and Access Management Phase IV	Deployment	464
Enterprise Technology Monitoring Phase II	Deployment	523
Application Platform Upgrade Phase II (Linux)	Deployment	453
Windows Server Upgrades	Deployment	381

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Enterprise Products (continued)		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Projects for Prioritization</i>		
Improve MP Access Security	Architecture Design	365
Integration Platform Availability Improvements	Deployment	402
Storage Infrastructure Redesign	Deployment	457

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Finance Products		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Mandatory Projects*</i>		
Regulated Transmission Cost Recovery	Deployment	651
<i>Continuing from 2014</i>		
Procurement Enhancements	Deployment	238
Manual Adjustments Redesign	Deployment	406
<i>Projects for Prioritization</i>		
CMS True-up Exposure	Deployment	408
Oracle Financials Fixed Assets	Deployment	238
Budget versus Actual Automation	Functional Requirements	233
RFP Evaluation Tool	Deployment	143
DAMAP Enhancement	Deployment	293
North Subzone Redistricting	Market Design Concept	215
Rate Schedule 1 Automation	Market Design Concept	365
CMS Financial Risk Assessment Tools	Functional Requirements	308

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Finance Products (continued)		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Projects for Prioritization</i>		
CMS Ratings Automation	Functional Requirements	308
CMS External Transactions Timing Enhancement	Deployment	348
CMS ICAP Spot Market Offers Enhancement	Deployment	333
CMS Unbalanced Trading Hubs	Deployment	213

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Operations & Reliability Products		2015 Candidates
	Proposed Deliverable	Priority Score
<i>Continuing from 2014</i>		
FERC Funded Rerun Phase 2	Deployment	770
FERC Funded Rerun Phase 3	Development Complete	770
<i>Projects for Prioritization</i>		
EMS/BMS System Upgrade	RFP Initiated	743
Breaker Level Market Modeling	Deployment	598
Transmission Service Charges: Rate Update	Deployment	520
BES: Contingency Analysis Updates	Deployment	618
BES: Interconnection Reliability Operating Limits (IROL) Visualization	Deployment	592
Dispatcher Training System (DTS) Sustainability Phase II	Development Complete	578
Gas-Electric Coordination: Fuel Availability Self Reporting (SOM)	Deployment	663
MetrixIDR (Load Forecaster Upgrade)	Deployment	578
MMA Market Operations Report Automation	Functional Requirements	660
2015 Reference Level Software (RLS) Enhancements	Deployment	636
Post Day Ahead and Real-Time Line De-rates Daily	Deployment	188

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Planning Products		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Continuing from 2014</i>		
Economic Planning Model Management	Deployment	637

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TCC Market Products		2015 Candidates
	<i>Proposed Deliverable</i>	<i>Priority Score</i>
<i>Continuing from 2014</i>		
TCC Revenue Allocation Automation	Deployment	744
<i>Projects for Prioritization</i>		
Balance-of-Period AMS	Software Design	564
Balance-of-Period AVS	Functional Requirements	564
Balance-of-Period CMS	Functional Requirements	564
TCC AMS Round Type and Upgrade	Deployment	424
TCC On-Peak/Off-Peak	Market Design Concept	350

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Next Steps

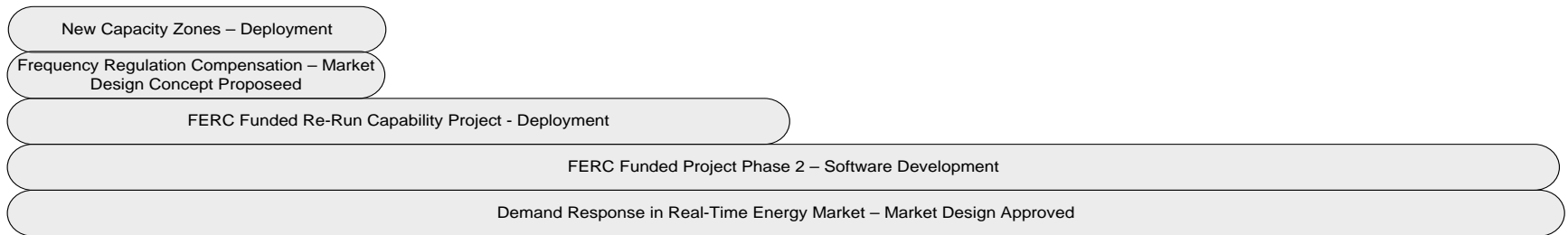
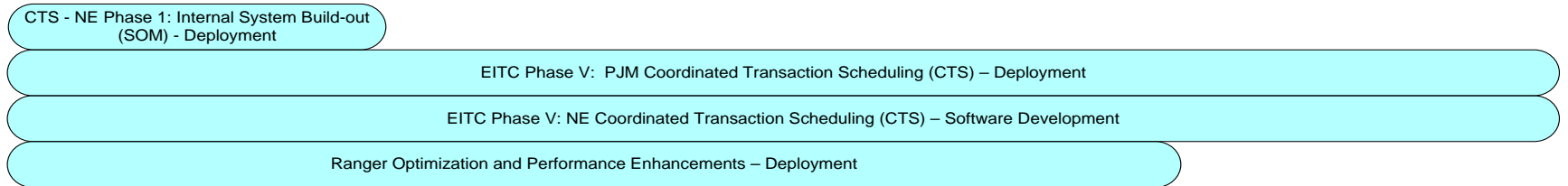
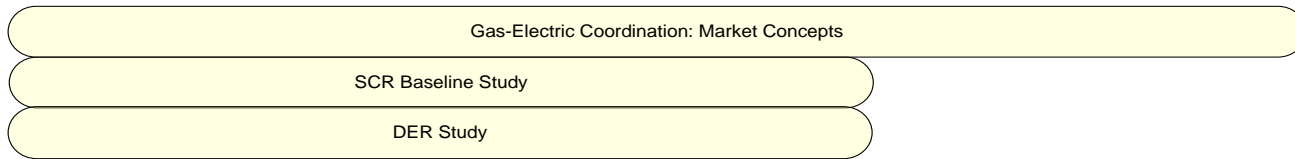
- ◆ **Ongoing dialogue with Market Participants at BPWG and other working groups**
- ◆ **Continue internal NYISO prioritization process**
- ◆ **Conduct feasibility assessment of mandatory projects and high priority projects**
- ◆ **Develop cost estimates**
- ◆ **Solicit feedback from Market Participants at August BPWG**

APPENDIX

2014 – 2016 Product Plan: Strategic Initiatives and FERC Orders

2014 Product Plan - Strategic Initiatives and FERC Orders

Q1-2014	Q2-2014	Q3-2014	Q4-2014
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- NYISO Strategic Initiatives
- Broader Regional Markets
- FERC Order

2015 - 2016 Product Plan - Strategic Initiatives and FERC Orders

2015	2016
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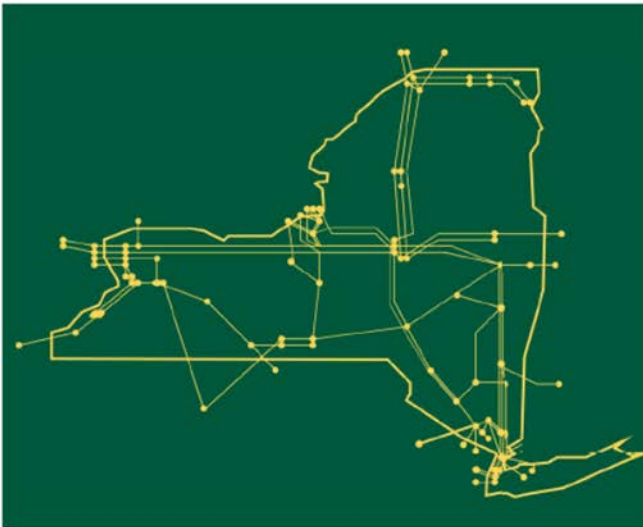
- Expanded Gas-Electric Coordination
- Robust Planning
- Capacity Markets and Generator Retirements
- Technology and Smart Grid
- Demand Response

- EITC Phase I: HQ on Dispatch (5-Minute)
- EITC Phase IV: ISO-NE CTS – Deployment

- Demand Response in RT Energy Market – Development and Testing
- Demand Response in RT Energy Market – Implementation
- FERC Funded Project Phase 2 - Deployment
- FERC Funded Project Phase 3 - Deployment
- NERC Critical Infrastructure Protection v5 - Implementation
- Regulated Transmission Cost Recovery

- NYISO Strategic Initiatives
- Broader Regional Markets
- FERC Order

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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