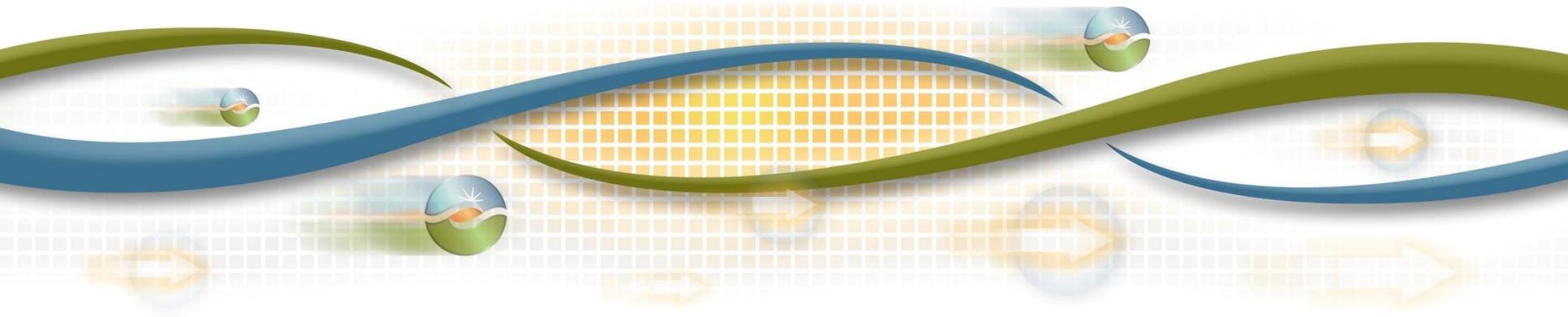


2017 Policy Initiatives Roadmap

December 22, 2016

Brittany Dean

Market Design and Regulatory Policy



Overview

- Changes to roadmap since previous version
- ISO's rankings of discretionary initiatives
- Stakeholder comments
- 2017 Policy Initiatives Roadmap
- Next steps

Discretionary initiatives ranked using a high level cost/benefit analysis

		Criteria	HIGH	MEDIUM	LOW	NONE
			10	7	3	0
A	Benefit	Grid Reliability	Significant Improvement	Moderate Improvement	Minimal Improvement	No Improvement
B		Improving Overall Market Efficiency	Significant improvement	Moderate improvement	Minimal improvement	No impact
C		Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact
E		ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact

Changes to the 2017 Policy Initiatives Roadmap since previous version

- Deferred Full Network Model Phase 2
- Added Blackstart and System Restoration
- Added FERC Order 831 Compliance
- Renamed Reliability Services Phase 3 to Resource Adequacy Enhancements
- Added four discretionary initiatives
 - Real-Time Market Enhancements
 - Management of EIM Imbalance Settlement for Bilateral Schedule Changes
 - Risk-of-Retirement Process Enhancements
 - Congestion Revenue Rights Auction Efficiency

Ranking of the 2017 discretionary items

Initiative Name	Grid Reliability	Improving Overall Market Efficiency	Desired by Stakeholders	Total Benefit	Market Participant Implementation (\$ and resources)	ISO Implementation (\$ and resources)	Total Feasibility	Total Score
Real-Time Market Enhancements	7	7	7	21	7	3	10	31
Management of EIM Imbalance Settlement for Bilateral Schedule Changes	3	7	7	17	7	7	14	31
Risk-of-Retirement Process Enhancements	10	3	3	16	10	3	13	29
CRR Auction Efficiency	0	7	7	14	7	7	14	28
Donation by Third Party for Transmission Capacity Available for EIM Transfers	3	7	3	13	7	7	14	27
Multi-Year RA	7	7	3	17	7	3	10	27
Export Charges	3	3	7	13	7	7	14	27
Combine IFM/RUC with Multi-Day Unit Commitment	3	10	7	20	3	3	6	26

Discretionary initiatives added to roadmap (1 of 4)

- **Real-Time Market Enhancements**
 - Improve market efficiency
 - Extend unit commitment time horizon
 - Better align ancillary services procurement with flexible ramping product and energy
 - Improved fifteen-minute market and EIM base schedule submission timing

Discretionary initiatives added to roadmap (2 of 4)

- **Management of EIM Imbalance Settlement for Bilateral Schedule Changes**
 - Resulted from FERC technical conference
 - Leverage market's existing wheeling through functionality to allow price for schedule changes
 - Will work in conjunction with improved EIM base schedule timing

Discretionary initiatives added to roadmap (3 of 4)

- **Risk-of-Retirement Process Enhancements**
 - Consider conducting a risk of retirement analysis prior to end of resource adequacy contracting period
 - Assess need for new provisions to prevent multiple resources from retiring in the same resource adequacy period

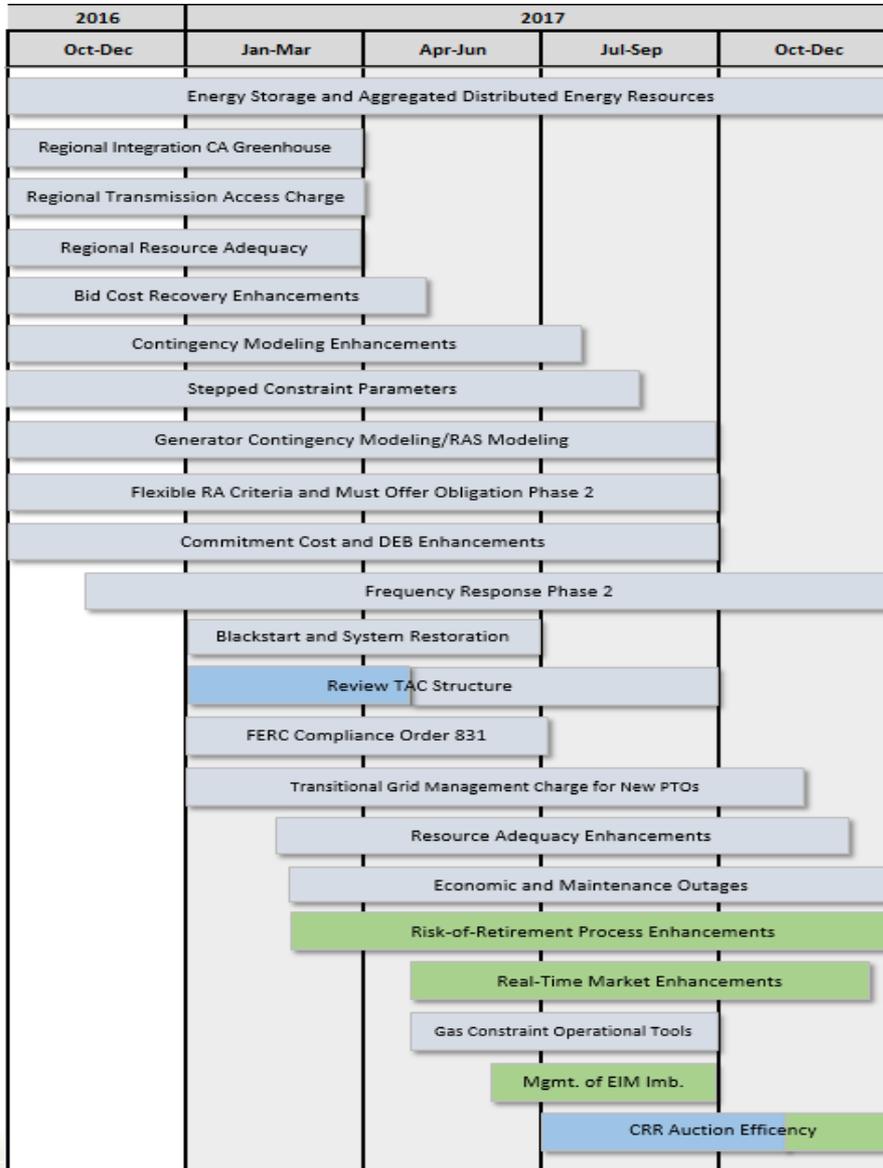
Discretionary initiatives added to roadmap (4 of 4)

- **Congestion Revenue Rights Auction Efficiency**
 - Addresses concerns raised by Department of Market Monitoring
 - ISO will analyze potential drivers of auction inefficiencies prior to starting initiative
 - Final initiative scope dependent on analysis

Highly-ranked discretionary initiatives not added to roadmap

- **Donation by Third Party for Transmission Capacity Available for EIM Transfers**
 - Potentially started in 2017 if resources become available
- **Multi-Year Resource Adequacy**
 - Requires coordination with changes to the CPUC's resource adequacy program.
- **Export Charges**
 - Elimination of export charges would not greatly affect the economics of purchasing exports
- **Combine IFM/RUC with Multi-Day Unit Commitment**
 - Defer to focus on real-time market

2017 Policy Initiative Roadmap (4 discretionary initiatives)



Gray –
Non-discretionary/on-going initiatives

Green –
Discretionary initiatives

Blue –
Initiative Analysis Phase

Stakeholder comments

- Forty-two sets of stakeholder comments
 - ISO considered comments in final rankings for 2017 roadmap
- Concerns about current roadmap process and suggestions for improvement
 - ISO will consider enhancements for upcoming 2018 processes

Next Steps

Stakeholder Process Schedule	
Date	Milestones
Jan 9, 2016	Stakeholder written comments due
Feb 1, 2017	Present 2017 Policy Initiatives Roadmap to the EIM Governing Body
Feb 15, 2017	Present 2017 Policy Initiatives Roadmap to the Board of Governors