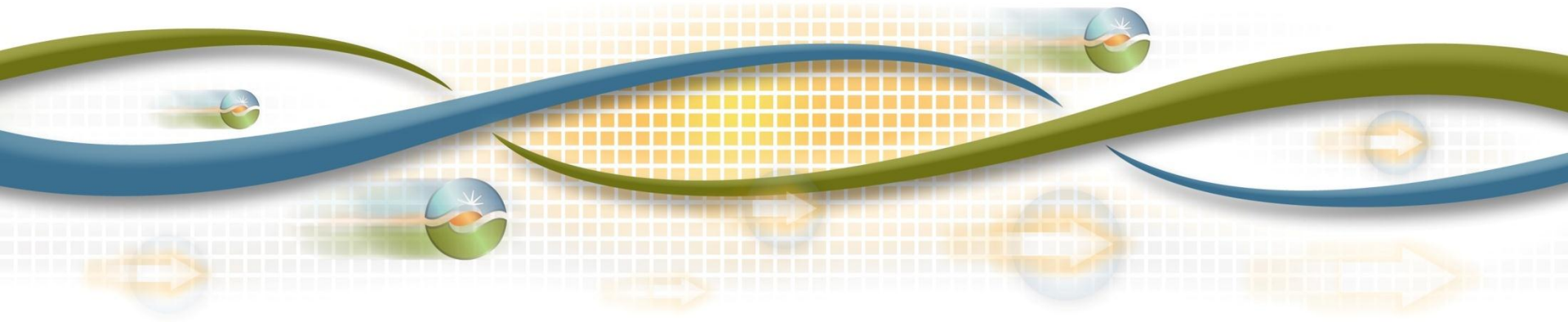


2012 Stakeholder Initiatives Catalog Presentation

September 26, 2012

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Agenda

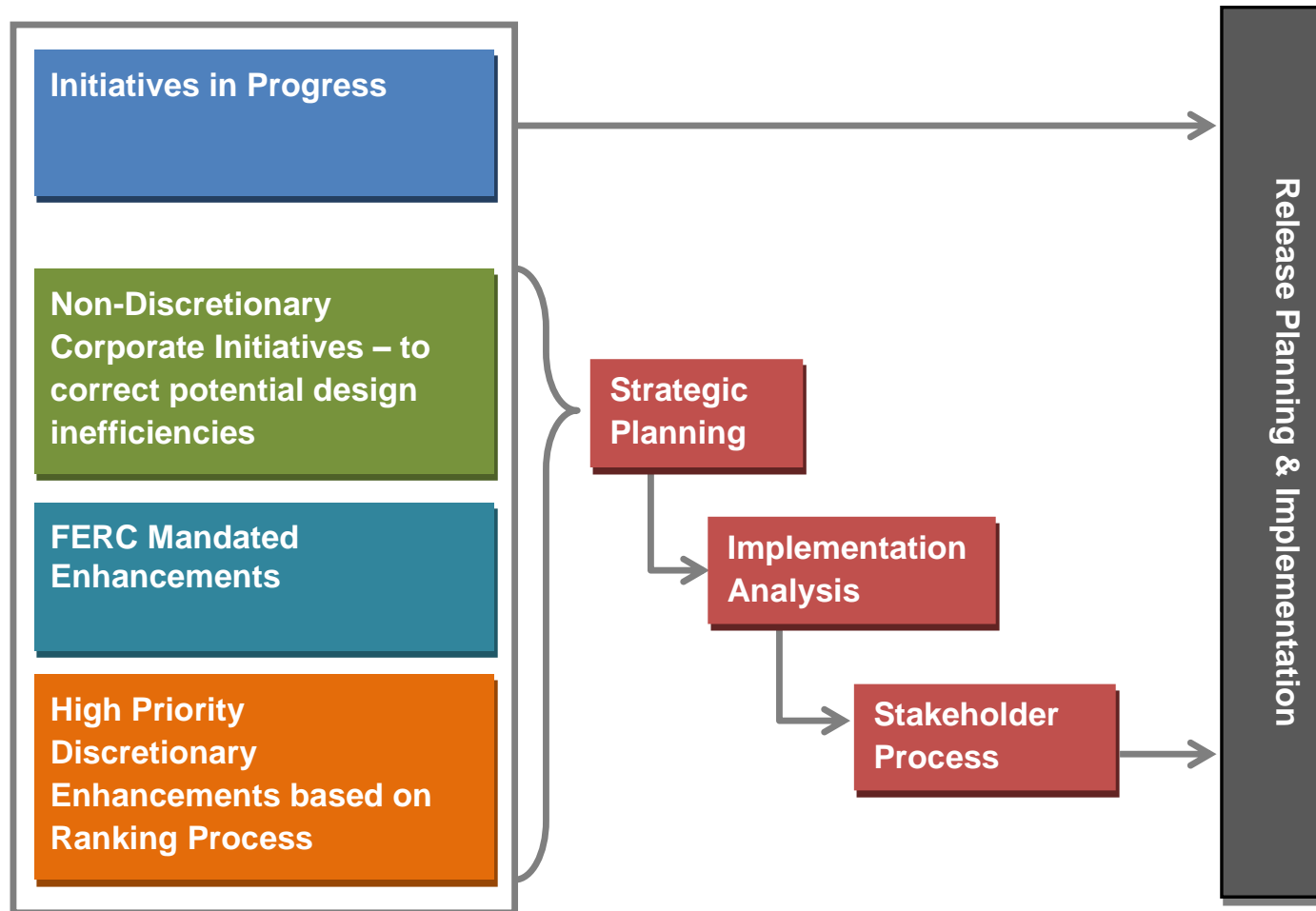
Time	Topic	Presenter
1:00 – 1:05	Introduction	Chris Kirsten
1:05 – 1:35	Catalog Overview	Delphine Hou
1:35 – 2:45	Stakeholder Comments Request	Delphine Hou
2:45 – 3:00	Next Steps	Chris Kirsten

Catalog Overview

Introduction

- Catalog documents current and proposed policy changes and enhancements, which require a stakeholder process
- 2012 catalog contains both market design and infrastructure and planning initiatives
- Initiatives can fall into four different categories:
 - In progress (I)
 - Non-discretionary (N)
 - FERC-mandated (F)
 - Discretionary (D)

Process Overview



Catalog Organization

Section 1 – Introduction	Section 8 – Resource/Supply Adequacy
Section 2 – Day-Ahead Market	Section 9 – Seams and Regional Issues
Section 3 – Real-Time Market	Section 10 – Infrastructure and Planning
Section 4 – Residual Unit Commitment	Section 11 – Other
Section 5 – Ancillary Services	Section 12 – Completed Initiatives
Section 6 – Congestion Revenue Rights	Section 13 – Deleted Initiatives
Section 7 – Convergence Bidding	

In Progress Initiatives (13)

Section	Code	Name
2.1	I, F	Load Aggregation Point (LAP) Granularity
3.1	I, N	Bid Cost Recovery Mitigation Measures
3.2	I, N	Exceptional Dispatch Mitigation in Real Time
3.3	I, N	Flexi-ramp Product
3.4	I, N	Flexi-ramp Product Cost Allocation Methodology
3.5	I, N	Decremental Bidding from PIRP Resources
5.1	I, F	Blackstart and System Restoration
8.1	I, N	Flexible RA Resource Capacity Performance and Must Offer Obligations
9.1	I, F	FERC Order 764 Market Changes
10.1	I, F	FERC Order 1000 Compliance
11.1	I, F	Administrative Pricing Rules
11.2	I, N	Lossy vs. Lossless Shift Factors
11.3	I, N	Price Inconsistency Market Enhancements

FERC-Mandated Initiatives (8)

Section	Name
2.2	Bid Cost Recovery (BCR) for Units Running over Multiple Operating Days
2.3	Marginal Loss Surplus Allocation
3.6	Two-tier Rather Than Single Tier Real Time Bid Cost Recovery (BCR) Allocation
4.1	Multi-Hour Block Constraints in RUC
5.2	Ancillary Services Substitution
5.3	Exports of Ancillary Services
5.4	Multi-Segment Ancillary Service Bidding
8.2	Standard RA Capacity Product for Demand Response (SCP III)

Non-Discretionary Initiatives (3)

Section	Name
2.4	Multi-Stage Generator Bid Cost Recovery (BCR)
11.4	Cost Allocation Overall Market Review
11.5	Metering and Telemetry Initiative

Discretionary Initiatives (30) page 1 of 3

Section	Name
2.5	Multi-Day Unit Commitment in the IFM
2.6	Pricing of Minimum Online Constraints
2.7	Regulatory Must-Run Pump Load
3.7	Differentiated Curtailment Priorities for Overgeneration Events
3.8	Directional Bidding in Real Time Market
3.9	DLAP Level Proxy Demand Response
3.10	Extend Look Ahead for Real-Time Optimization
3.11	Extended LMP, a.k.a Convex Hull Pricing
3.12	Ramp Rate Enhancements
4.2	Consideration of Non-RA Import Energy in the RUC Process

Discretionary Initiatives (30) page 2 of 3

Section	Name
5	30 Minute Operating Reserve (see slide 20)
5.5	Fractional MW Regulation Awards
5.6	Frequency/Inertia Procurement
5.7	Voltage Support Procurement
6.1	Economic Methodology to Determine if a Transmission Outage Needs to be Scheduled 30 Days Prior to the Outage Month
6.2	Flexible Term Lengths of Long Term CRRs
6.3	Long Term CRR Auction
6.4	Multi-period Optimization Algorithm for Long Term CRRs
6.5	Release of CRR Options
6.6	Review the CRR Clawback Rule
7.1	Allowing Convergence Bidding at CRR Sub-LAPs

Discretionary Initiatives (30) page 3 of 3

Section	Name
8.3	Multi-year Forward Reliability Capacity Pricing Mechanism
8.4	Non-Flexible RA Resource Capacity Performance and Must Offer Obligations
8.5	Seasonal Local RA Requirements
9.2	Make Whole Process for Wheel-Through Transactions
10.2	Generator Interconnection Procedures 3 (“GIP 3”)
10.3	Transmission Interconnection Process
11.6	Aggregated Pumps and Pump Storage
11.7	Rescheduled Outages
11.8	Storage Generation Plant Modeling

Completed and Deleted Initiatives

- 23 initiatives were completed as of September 2012
 - Considered “completed” if the policy development stakeholder process is finished
- 21 initiatives were marked for deletion and will not appear in next year’s catalog
 - Majority are duplicative of other initiatives
 - A few lacked broad stakeholder support

Stakeholder Comments Request

Stakeholder Comments Request

- Please provide 3 pieces of information in your written comments:
 1. Review the discretionary initiatives for completeness
 2. Add discretionary initiative not listed in catalog
 3. Rank discretionary initiatives

Stakeholder Comments Request (cont'd)

1. Review the discretionary initiatives for completeness
 - Questions and clarifications
2. Add discretionary initiatives not listed in catalog
 - Provide:
 - Detailed explanation of new initiative,
 - Explain how it may affect market participants w/r/t reliability or efficiency of the market, and
 - When it needs to be addressed

Stakeholder Comments Request (cont'd)

3. Rank discretionary initiatives

- Select five market design initiatives* from combination of initiatives provided and newly proposed
- Rank each of these initiatives based on four of the high level prioritization criteria (see next slide)
- For each initiative, then provide a rationale for considering this initiative over others and discuss why a score was provided under each criterion
- Focus on initiatives with broad market benefits

*Infrastructure and planning can be considered separately

High Level Prioritization Criteria

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

For each criterion use 0, 3, 7, or 10 for total maximum score of 40

For the Next Catalog Version

- For initiatives already listed:
 - Stakeholder question/request for clarification and ISO response
- For new initiatives:
 - Stakeholder provided description
- For ranked discretionary initiatives:
 - Summary of average rankings
- Detailed rankings if necessary

30 Minute Operating Reserve (D)

- Section 5: Ancillary Services
- During the stakeholder process of various market initiatives (CPUC Long Term Resource Adequacy proceeding, Scarcity Pricing) stakeholders have raised the potential benefits of a new ancillary services product to address 30 minute reliability contingencies. Under the current market ancillary services structure, potential contingencies that could be covered by a 30 minute product are addressed using 10 minute ancillary services products which could result in the ISO needing to procure ancillary services on a sub-regional basis in higher amounts than would otherwise be necessary to meet WECC operating reserve requirements. Additionally, if the ISO is unable to procure enough reserves through the market, Exceptional Dispatch would be used. An alternative that has been suggested is to develop a new 30 minute A/S product. In its 2009 Order on the revised pricing rules for Exceptional Dispatch, FERC has required that the ISO examine the need for such a new product to reduce the frequency of Exceptional Dispatch.

Next Steps

Item	Date
Post draft 2012 Stakeholder Initiatives Catalog	September 19
Stakeholder Conference Call	September 26
Stakeholder Comments Due	October 10
Post revised 2012 Stakeholder Initiatives Catalog	October 17

Please submit comments to MarketDesign@caiso.com

The ISO offers comprehensive training programs

Date	Training
October 2	Introduction to the ISO Market (on-site)
October 3, 4	ISO Market Transactions (on-site)
October 5	Replacement Requirement pre-market sim training (web conference)
October 23	Settlements training (on-site)
October 24	Convergence bidding training (on-site)
October 25	Welcome to the ISO (web conference)

Training calendar - <http://www.caiso.com/participate/Pages/Training/default.aspx>

Contact us - markettraining@caiso.com