

# Memorandum

**To:** ISO Board of Governors  
**From:** Steve Berberich, Vice President, Technology and Corporate Services  
and Chief Financial Officer  
**Date:** July 16, 2010  
**Re:** **Briefing on 2010-2011 Market Initiatives Release Plan**

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*This memorandum does not require Board action.*

## EXECUTIVE SUMMARY

Since the last update provided in March, ISO staff and market participants have jointly deployed several new features to the new market design. Specifically, we have enabled:

- *Procurement of ancillary services in the hour-ahead scheduling process* as planned on April 1, 2010 and *forbidden operating regions* as planned on April 15, 2010;
- *Price correction make-whole payment to accepted demand bids* as planned on June 1, 2010; and
- Increased transparency through the *transmission constraint data release* as planned on July 13, 2010.

Two deployments planned in the spring timeframe have been deferred as a result of FERC regulatory action following deficiency letters requiring the ISO to provide additional information in support of the ISO's tariff amendment filings.

- *Scarcity pricing* is rescheduled to be implemented no earlier than November 29, 2010 following FERC's June 29, 2010 order conditionally accepting the ISO's scarcity proposal. FERC suspended the implementation of scarcity pricing to further consider the ISO's proposal for scarcity premiums in the ancillary service sub-regions. Management will submit a compliance filing within sixty days to address the FERC order; and
- *Proxy demand resource* is rescheduled to begin registration on August 10. FERC directed the ISO to provide additional information on cost assignment and neutrality prior to ruling on the ISO's PDR filing which resulted in the new target implementation date.

Other market initiative releases continue to make progress according to plan, including *multi-stage generator modeling* in fall 2010 and *convergence bidding* in early 2011. We continue to assess and plan for a new slate of market initiatives, including the renewable integration market and product review starting this quarter.

## **THE RELEASE PLAN**

### ***Fall 2010 release***

*Multi-stage generator modeling* incorporates software functionality for units with multiple configurations, such as combined cycle generating plants or resources with real-time forbidden operating regions.

- ISO staff reports continued progress on the development and testing of software changes required to support multi-stage generator modeling. To date, no showstopper issues have been identified with this complex functionality and the software is performing as expected;
- Staff filed tariff language for multi-stage generator modeling with FERC on May 27, 2010 and no parties have submitted protests.
- Market simulation began on July 12, 2010, one week later than planned but not impacting the overall project schedule; and
- Management confirms that multi-stage generator modeling is on track for deployment on October 1, 2010, based on progress made to date.

The changes in commitment costs policy, which is being presented to the Board this month, address potential issues with market power mitigation and is planned to be implemented coincident with the multi-stage generator modeling release. The changes have a moderate level of system impact which will require regression testing to ensure they have no adverse impacts. Because of testing late in the cycle, there is a potential for finding issues and impacting the ultimate implementation date. Management will monitor the situation closely and keep participants updated. The tariff language for these changes will need to be filed immediately following the July Board meeting to receive a 60-day order prior to October 1, 2010. This effort is considered to be manageable and has been fully vetted with stakeholders; however, it is possible that FERC will request changes that may impact the schedule. Management will also monitor for that potential.

### ***Winter 2010 release***

*Phase 2 of the standard capacity product proposal* contemplates enhancements required by FERC to the existing standard capacity product. This was presented to the Board and approved in May. Actions that have taken place include:

- ISO staff posted the external business requirements specifications and reviewed implementation plans with market participants on June 30, 2010; and
- Deployment will be effective on January 1, 2011 to align with annual resource adequacy contracting practices.

*72 hour residual unit commitment* extends the time horizon for unit commitment beyond one trade date, which provides efficiency and reliability in scheduling resources across trading day boundaries. This is anticipated to be brought before the Board in September and will be confirmed or modified depending on Board action. Actions that have taken place include:

- ISO staff reviewed a straw proposal with market participants on June 18, 2010; and
- Pending Board approval of the market initiative at this meeting, deployment will be in late 2010 to align with the ISO corporate goal for market quality functionality.

Implementation of *congestion revenue rights enhancements and credit policy* approved by the Board in March and May is underway with deployment planned in November 2010. These enhancements are primarily process driven with minimal system enhancements.

### ***Early 2011 release***

The focus of the early 2011 release is *convergence bidding* with further refinements to *participating load and other non-generation resources* moving to the fall 2011 timeframe.

*Convergence bidding* allows market participants to place purely financial bids at particular pricing nodes in the day-ahead market. Convergence bids cleared in the day-ahead market at day-ahead prices are liquidated in the hour-ahead or real-time market at the applicable hour-ahead or real-time prices. The market participant thus earns or is charged the difference between the day-ahead price and the applicable hour-ahead or real-time price at the location of the cleared bid. *Convergence bidding* will enable market participants to hedge exposure to real-time price volatility and will provide other market efficiency benefits through increasing liquidity in the markets as well as price convergence between day-ahead and real-time prices. The current status of this initiative is as follows:

- ISO staff reports continued progress on the design and development of software changes required to support convergence bidding;
- Monthly progress reports on the implementation of *convergence bidding* are being submitted with FERC;
- Twenty-eight convergence bidding entities have registered to date and eighteen participants have submitted bid sets to assist with convergence bidding testing; and
- Staff is currently executing a project plan to deploy convergence bidding on February 1, 2011.

### ***Spring 2011 release***

Following the early 2011 release, Management intends to respond to stakeholder request for only two major releases per year with spring and fall deployment timeframes. The spring 2011 release will be sized appropriately to meet additional concerns that the ISO and market participants will need a stabilization period following the many changes that have occurred since the start of new market design. The following smaller efforts will be supported in the spring 2011 release:

- *Interim capacity procurement mechanism and exceptional dispatch pricing* changes to replace existing structures that will expire in March 31, 2011;
- *Participating load pilots* will be supported as requested by market participants.
- Initial implementation of *changes in commitment cost* and *dynamic transfers* will be considered and applied in this timeframe with the full implementation to follow in the fall of 2011.

## ***Fall 2011 release***

The fall 2011 release will be a major release with significant new functionality being added to address policy changes that have already completed or will soon complete the stakeholder process, including:

- *Aggregated pumps and pump storage* further enhance the ability of pumping and pump storage resources to take advantage of multi-stage modeling for bidding into the market;
- *Ancillary services for non-generation resources* further enhances the ability of non-generation resources to be bid and optimized in the market;
- Additional implementation of resource adequacy features, including: *bids for resource adequacy imports and subset of hours resource adequacy* and the *replacement requirement for resource adequacy resources for planned outages*, as well as the third phase of the *standard capacity product*;
- *Dynamic transfers* will respond to requests to the ISO for dynamic scheduling of import services which have increased dramatically in the past year;
- *Reliability demand response product* will meet the needs for newly configured demand response resources that have a reliability trigger and desire to be dispatched only under particular system conditions;
- *Changes to commitment costs* including bidding and mitigation for start up and minimum load costs;
- *Data release phase 3* will further address market transparency concerns; and
- *Outage management system* will provide an improved platform for managing generation outages.

## **LOOKING FORWARD**

As we look ahead to the spring of 2012, many additional market initiatives are planned for the three year milestone following the start of the new market design. Most significantly, the ISO will start to implement the results renewable integration market and product review . Management will also address the new functionality mandated by FERC to be completed in this timeframe. Management is committed to maintaining high quality and timely releases to satisfy these objectives, working with market participants to achieve the greatest value for investments made in evolving our systems, processes, and people to meet this challenge.

# Attachment 1 Updated Release Plan

7/15/2010 Market Initiatives Release Plan - Straw Proposal			May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	
Summer 2010	Implementation	Price Correction Make Whole Payments		★																								
	Implementation	Transmission Constraint Data Release Phase 1			★																				▲			
	Implementation	Proxy Demand Resource			★																				▲			
Fall / Winter 2010	Implementation	Multi-Stage Generation Modeling																										
	Implementation	Scarcity Pricing																										
	Planning	72 Hour Residual Unit Commitment (pending stakeholder discussion)																										
	Implementation	Standard Capacity Product Phase 2 / Phase 1 Changes	▲																									
	Planning	CRR Enhancements / Credit Policy	▲																									
Early 2011	Implementation	Convergence Bidding / Credit Tracking System																										
Spring 2011	Policy	ICPM and Exceptional Dispatch Bid Mitigation	▲																									
	Planning	Participating Load Pilot (placeholder)																										
Fall 2011	Planning	Aggregated Pumps and Pump Storage																										
	Planning	AS for Non-Generation Resource																										
	Policy	Bids for RA Imports and Subset of Hours RA																										
	Policy	Replacement Requirement for RA Resources for Planned Outages																										
	Policy	Standard Capacity Product Phase 3																										
	Policy	Dynamic Transfers - Full Functionality (Interim release to be determined)																										
	Planning	Changes in Commitment Costs - SUC/MLC																										
	Policy	Reliability Demand Response Product																										
	Policy	Data Release Phase 3																										
	Implementation	Outage Management System																										
Spring 2012	Policy	Renewable Integration Market & Product Review (Phase 1&2)																										
	Policy	Year Three Mandated Items (listed below)																										
	Policy	LAP Granularity																										
	Policy	Bid in Demand in LMPM Process																										
	Policy	Multi-Day Unit Commitment																										
	Policy	Bid Cost Recovery for Unit over Multiple Days																										
	Policy	Simultaneous RUC and IFM																										
	Policy	Two Tier Real-Time Uplift																										
	Policy	Export of AS																										
	Policy	AS Substitution																										
	Policy	Multi Hour Block Bidding in RUC																										