



Memorandum

To: ISO Board of Governors

From: Steve Berberich, Vice President, Technology and Corporate Services
and Chief Financial Officer

Date: March 17, 2010

Re: **Briefing on 2010-2011 Market Initiatives Release Plan**

This memorandum does not require Board action.

EXECUTIVE SUMMARY

For this update, there are a few changes to the release plan of note. Specifically, we have confirmed functionality in the previously discussed summer release and have added a placeholder winter 2010 release in anticipation of implementing updates to the standard capacity product. In addition, Management is pleased to report that market simulation for forbidden operating regions, scarcity pricing, procurement of ancillary services in the hour-ahead scheduling process and proxy demand resource started as planned on March 1 in preparation for spring deployment. All other releases remain on track.

We continue to assess and plan for a new slate of market initiatives, including the addition of ancillary services for non-generator resources. We will work closely with stakeholders to determine the appropriate release timeframe and approach for new functionality.

THE RELEASE PLAN

Spring 2010 release

The spring 2010 release delivers key market functionalities that were deferred until after the deployment of the new market. The release includes four key initiatives: *forbidden operating regions, scarcity pricing, procurement of ancillary services in the hour-ahead scheduling process* and *proxy demand resource*.

Forbidden operating regions provides efficient dispatch functionality in the real-time market for units with forbidden operating regions (e.g. combined cycle gas plants). The current status of this initiative is as follows:

- Testing has confirmed acceptable system performance of forbidden operating regions in the real-time market;
- ISO staff and market participants have been executing and validating market simulation scenarios since March 1, 2010; and
- Deployment is on track for April 15, 2010

Scarcity pricing enhances the current pricing mechanism and raises ancillary services prices if there are insufficient ancillary service bids to meet procurement targets. The implementation satisfies the Federal Energy Regulatory Commission's *September 2006 MRTU Order* directing the ISO to implement a more comprehensive reserve shortage mechanism within 12 months of the new market implementation. The current status and summary of activities includes:

- ISO staff discussed adding a scarcity reserved demand curve value for regulation down with market participants and will proceed in pursuing tariff changes with FERC. This will not impact planned deployment on April 1, 2010 and a price correction process will be used in the interim;
- Additional parameter changes, such as price and bid caps associated with the one year after new market implementation timeframe, have been incorporated into the testing of this initiative;
- ISO staff and market participants have been executing and validating market simulation scenarios since March 1, 2010; and
- Deployment is on track for April 1, 2010.

Procurement of ancillary services in the hour-ahead scheduling process allows dispatch of energy from operating reserves procured from non-dynamic system resources in the hour-ahead timeframe. Current status points include:

- FERC accepted the ISO's filing for tariff changes to support the procurements of ancillary services in HASP;
- ISO staff and market participants have been executing and validating market simulation scenarios since March 1, 2010; and
- Deployment is on track for April 1, 2010.

Proxy demand resource is a new demand response product which allows demand resources to directly participate in the ISO market and meets the requirements for comparable treatment of generating and non-generating resources in accordance with FERC Order No. 719. Management is moving forward with implementation as follows:

- Testing of software changes continues, including the new demand response system for registration, metering and baseline calculation of proxy demand resources;

- The ISO continues its coordination with the California Public Utilities Commission and awaits the CPUC's decision on the direct participation phase of the demand response proceeding due in late March or early April. That decision will not slow our deployment but may limit participation for the first couple of months. Based on progress made to date, proxy demand resource remains on track for deployment on May 1, 2010.

Summer 2010 releases

Although ISO staff and market participants prefer a model of two releases a year, deployment of minimally impacting new functionality will occur in the summer 2010 timeframe, including the *price correction make-whole payment to accepted demand bids* and *data release of transmission constraints*.

Price correction make-whole payment to accepted demand bids is a payment mechanism to compensate market participants for adverse financial impacts in cases where prices are corrected in a way that is not consistent with their accepted demand bids.

- Staff does not anticipate any changes in external interfaces or the need for a market simulation with market participants; and
- Based on the level of effort and other implementation considerations, Management proposes a deployment in the summer of 2010 with the firm date to be provided four weeks in advance.

Data release – transmission constraints is in response to stakeholders requesting the release of additional information enabling them to better understand market results and participate more effectively in the ISO market, including the need for additional transparency of transmission constraint information.

- Staff has determined the implementation effort to have minimal impact on market participants; and
- Based on the level of effort and other implementation considerations, Management proposes a deployment in the summer of 2010 with the firm date to be provided four weeks in advance.

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;

- Staff published an implementation plan to provide further details on the external user interface changes and transition from forbidden operating region modeling to multi-stage generator modeling which will be further discussed at an implementation workshop planned for April 20, 2010; and
- Management confirms that multi-stage generator modeling is on track for deployment on October 1, 2010, based on progress made to date.

Winter 2010 release (pending)

Standard Capacity Product Phase 2 contemplates enhancements required by FERC to the existing standard capacity product, which provides efficiency and reliability in resource adequacy contracting and trading. This is anticipated to be brought before the Board in May and will be confirmed or deleted depending on Board action. Actions that have taken place include:

- ISO staff reviewed implementation impacts with market participants on March 16, 2010; and
- Pending Board approval of the market initiative at this meeting, deployment will be required on January 1, 2011 to align with annual resource adequacy contracting practices.

Early 2011 release

The early 2011 release includes convergence bidding and further refinements to the participating load program. Additionally, the introduction of ancillary services for non-generation resources will be considered for the spring 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:

- FERC provided an order on the convergence bidding conceptual design and approved the date extension requested by the ISO. Per the order, ISO staff will provide a monthly status report on the implementation progress beginning April 1, 2010;
- Staff provided market participants with bidding rules and technical specifications for external system interfaces as planned;

- Management is actively engaged with the ISO's primary software vendor in the software development phase of convergence bidding and is conducting tests to determine practical limits to make the software implementation more predictable; and
- Staff is currently executing a project plan to deploy convergence bidding on February 1, 2011.

Participating load refinements further enhance the ability of participating load resources to be bid and optimized in the market with most of the available market features like generating resources. These refinements will help complete the vision for demand response products. The participating load refinements are planned for deployment on February 1, 2011.

- Staff presented the external business requirements specifications and other implementation impacts to stakeholders on March 16, 2010; and
- The participating load refinements are planned for deployment on February 1, 2011, although deployment may be in phases to incorporate changes in regulation and to ensure there is no impact on Convergence Bidding.

Ancillary services for non-generation resources further enhances the ability of non-generation resources to be bid and optimized in the market and will be presented to the Board at this meeting. The ISO is assessing implementation impacts with market participants and vendors to determine the appropriate deployment date and will add this to the market initiatives release plan as estimates are refined.

LOOKING FORWARD

As the ISO's five year strategic plan continues to unfold, market design enhancements will improve market efficiency, create incentives and remove barriers to meet requirements for renewable integration. Management has defined the following high level objectives for market progression:

- Improve accuracy and transparency of pricing;
- Provide incentives for market and operating behavior that support reliability;
- Provide incentives for technological innovation to meet current and future needs;
- Provide incentives for timely infrastructure development; and
- Reduce credit risk

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

