

# Memorandum

**To:** ISO Board of Governors

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

**Date:** September 2, 2009

**Re: Briefing on 2009-2011 Market Initiatives Release Plan**

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*This memorandum does not require Board action.*

## EXECUTIVE SUMMARY

Having deployed the new market design in April 2009, the California Independent System Operator Corporation (ISO) has created a stable platform for new market initiatives. Based on the *Five-Year Strategic Plan* and the market initiatives roadmap stakeholder process, Management proposes the *2009-2011 Market Initiatives Release Plan* to address both operational and market objectives. The release plan relies on a business impact analysis of all stakeholders in order to allocate resources to market initiative projects.

In the release plan, Management aims to improve on its earlier efforts to reduce risk to the ISO and stakeholders and improve transparency. By scoping more comprehensively and defining requirements under tight governance, Management expects to correct under-estimation, functional gaps and resource constraints. In the release plan's delivery and deployment phases, the ISO will benefit from planning investments and other process improvements in vendor delivery and market participant readiness. The ISO will produce more accurate schedules and better adhere to those schedules.

While Management intends to carefully manage market initiatives to maintain fixed scope, schedule and budget, we will also consider changing business drivers as conditions evolve. Staff will continuously review the release plan with Management and stakeholders and update it appropriately.

## **DISCUSSION AND ANALYSIS**

### ***Origin of the release plan process***

The release plan is derived from the five-year plan, Federal Energy Regulatory Commission (FERC) orders, the roadmap process and other stakeholder input. The five-year plan guides the ISO as it allocates resources to implement proposed market design improvements. Several FERC orders have driven the implementation dates and our stakeholders have significant input into the prioritization and process. Finally, we have abundant lessons learned from the MRTU process that have been applied to the plan to lessen both financial and implementation risk.

### ***Lessons learned***

Management is applying lessons learned from past implementation experiences. The key improvements Management has identified include:

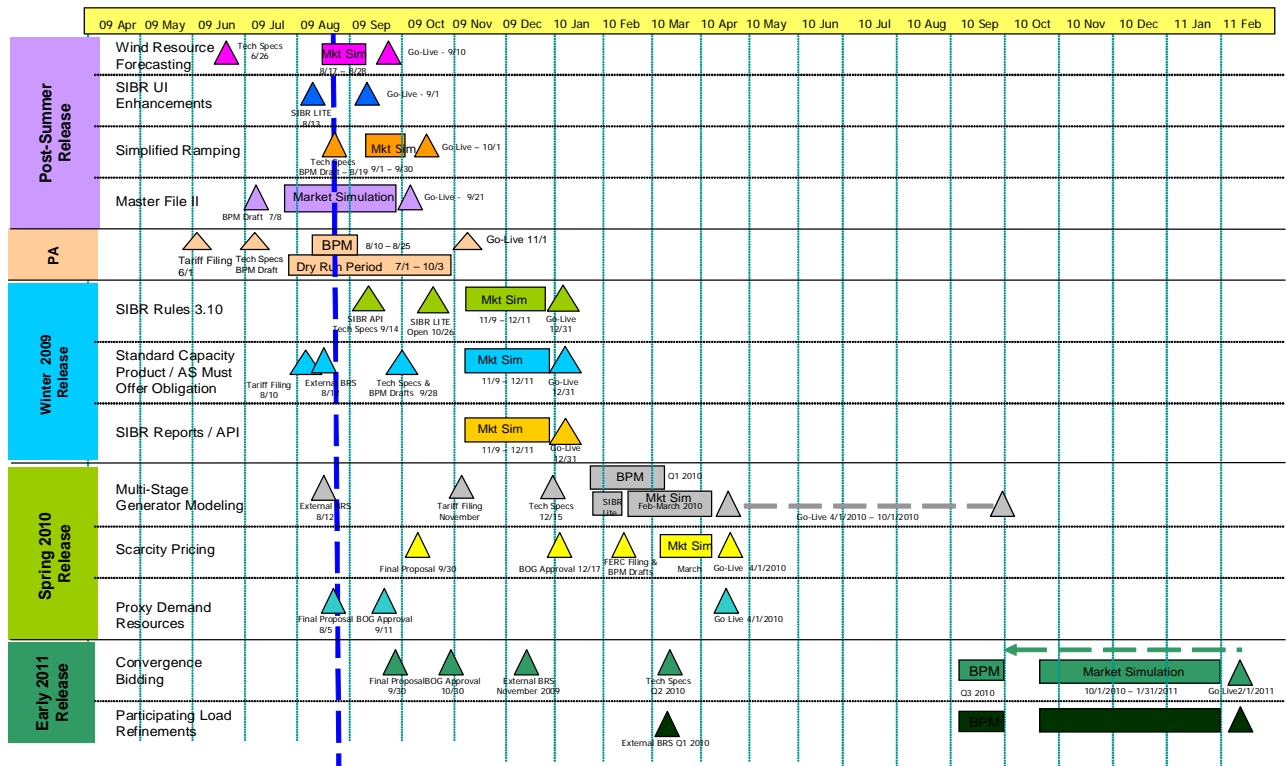
- Ensuring requirements are final and fixed before proceeding with subsequent phases of the project. This drives market design decisions that need to be made to keep the schedule;
- Maintaining tight traceability of requirements from the market design, to the business practice manuals, to the system design;
- Working closely with the key vendors to ensure adequate support and continuity of resources for the project duration;
- Contracting on a fixed scope, fixed fee basis with key vendors. This will help manage financial risks to the project; and
- Committing to key program and project best practices with an identified executive sponsor, appropriate project oversight, adequate resource planning, and rigorous internal testing before committing to market trials.

### ***The Release Plan***

The release plan is the result of detailed implementation planning with stakeholders. It contains five tracks, based on level of effort and project duration. The tracks are: post-summer 2009 release; payment acceleration; winter 2009 release; spring 2010 release; and early 2011 release. The ISO will ultimately move to an implementation model that introduces new market functionality on a twice-yearly basis, with spring and fall releases.

As more market initiatives are ranked and defined, Management will assess its level of effort and resource availability. Management will then continuously add new market initiatives to the release plan and communicate them to stakeholders. Some current market initiatives that are currently before the Board include:

- Ancillary services procurement in the hour-ahead scheduling process (HASP);
- Modification of rules limiting the integrated forward market bid pool;
- Changes to start-up and minimum load bidding; and
- Real-time offset allocation



**Post summer release**

The post summer release addresses critical operational requirements and market enhancements. It includes changes to:

- The application managing wind resource forecasting;
- The market bidding interface;
- The ramp rate accounting approach; and
- The external user interface to the master file database.

These changes are in final testing and market simulation stages and will be fully deployed by October 1, 2009.

**Payment acceleration**

Payment acceleration reduces credit risk by shortening the time between trade date and market clearing. The ISO Board of Governors (Board) approved this initiative in December 2008 and the ISO filed the associated tariff changes with FERC on June 1, 2009. Since that date, Management has further clarified the method to assure neutrality of monthly charges invoiced on a semi-monthly basis. Management will present this to the Board at its September meeting. Payment acceleration is in the final stages of a market participant dry run and is on track for deployment on November 1, 2009.

**Winter 2009 release**

The winter 2009 release fulfills the highly-ranked need for a standardized resource adequacy capacity product. The *Standard Capacity Product* initiative, presented and approved by the

Board in April 2009, ensures efficiency and reliability in resource adequacy contracting and trading.

Several business process changes are required to determine:

- Grandfathering of old resource adequacy contracts;
- Yearly availability standards calculation;
- Monthly availability assessment; and
- Unit substation and outage reporting.

Management will also implement the new bidding rules for ancillary services must-offer obligation functionality, originally proposed with the *Scarcity Pricing* market initiative. It also introduces new reports and programmatic interfaces for the bidding rules application. The project is currently on track for a December 2009 deployment and a January 1, 2010 effective date.

### ***Spring 2010 release***

The spring 2010 release delivers key deferred market functionality in the year after go-live. It includes three key initiatives: *Multi-Stage Generating Unit Modeling*, *Scarcity Pricing* and *Proxy Demand Resources*.

- *Multi-Stage Generating Unit Modeling* incorporates software functionality for units with multiple configurations, such as combined cycle generating plans or those with forbidden operating regions. This market initiative was presented to and approved by the Board in May 2009 and is targeted for implementation on April 1, 2010. It addresses the deferred implementation of real time enforcement of forbidden operating region functionality.  
Management is currently evaluating internal development and testing schedules and stakeholder input that may extend the release of this modeling initiative to fall 2010, to allow enough time to evaluate market outcomes and solution quality.
- *Scarcity Pricing* enhances the current pricing mechanism. This mechanism raises bids to the bid cap when there are insufficient energy bids in real time. In its *September 2006 MRTU Order*, FERC required that a more comprehensive reserve shortage mechanism be implemented within 12 months of the new market implementation. The policy and market design stakeholder process is scheduled to finish in the fall. The draft final proposal will be presented to the Board in December 2009. Management is on track to deliver this mechanism in the directed timeframe of one year after new market deployment, due to the relatively small level of effort required and software applications impacted.
- *Proxy Demand Resources* initiative introduces a new demand response product designed to meet the new requirements for comparable treatment of generating and non-generating resources and for direct participation of these resources as set forth in *FERC Order 719*. The draft final proposal for proxy demand resources will be presented to the Board at the September meeting. Intermediate milestones for this market initiative are still being determined but Management expects to deliver it in this release, again due to the relatively small level of effort and number of software applications impacted.

### ***Early 2011 Release***

The early 2011 release implements convergence bidding and further refinements to the participating load program.

- *Convergence bidding* allows market participants to make energy sales (or purchases) in the day-ahead market, requiring them to buy back (or sell back) that energy in the real-time market. These virtual bids allow the market to pressure day-ahead and real-time prices to move closer together. This reduces the incentive for buyers and sellers to forgo bidding physical schedules in the day-ahead market in expectation of better prices in the real-time market. This initiative is currently concluding its policy and market design phase. Management is scheduled to bring the draft final proposal to the Board in October 2009.

Under FERC's *September 21, 2006 MRTU Order*, the ISO is directed to implement convergence bidding within 12 months after new market deployment. Management has determined it will need 18 months to implement convergence bidding, based on the business requirements and the technical challenges within the software design. The ISO intends to file with FERC a request for extension of the schedule to February 1, 2011.

Management is actively engaged with its primary software vendor in the software design phase and is conducting tests to determine practical limits to make the software implementation more predictable. Results of these efforts will be shared with stakeholders in a newly formed Convergence Bidding Working Group, which meets on a bi-weekly basis.

- *Participating load refinements* introduce bidding rules that will allow participating load resources to be bid and optimized in the market, as are generating resources. These refinements will help complete the demand response product offering. It will require considerable effort to implement over 200 bidding rules, with significant development and testing. Management is committed to delivering this functionality as soon as possible.

### **POSITIONS OF THE PARTIES**

Management discussed the proposed 2009-2011 release plan with market participants at an implementation workshop on June 24, 2009. Eleven market participants submitted comments by July 17, 2009. Those initial comments are summarized in the attached matrix and represent a diverse set of positions based on varying levels of impact to implement these market initiatives. The ISO held a subsequent implementation workshop on August 19, 2009 where the ISO factored stakeholder feedback into the release plan, such as allowing for more testing time for multi-stage generating unit modeling. Upon further discussion on the overall level of effort with stakeholders at the second workshop, Management is considering moving the tariff filing to seek FERC approval to implement multi-stage generating unit modeling to the fall of 2010. The ISO has planned additional implementation workshops for October 6, 2009 and November 10, 2009 to continue the joint impact assessment and implementation planning efforts.

Management is committed to continuously improving the release planning process and will respond to stakeholder comments over the course of this two-year planning horizon and beyond. As further planning and schedule validation occurs, Management plans to share a more detailed, fully transparent consolidated release schedule, with external milestones and dependencies between projects as requested by stakeholders.

Management appreciates the participation of market participants through the implementation workshops and will continue to rely on stakeholder input to guide the market initiatives release plan. Release planning is an ongoing collaborative stakeholder process that will continue to be required as new market initiatives are proposed and prioritized. This update is the first of many as we embark on the enhancement of the new market platform.