



California Independent
System Operator Corporation

March 5, 2009

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

**Re: Monthly Status Report re MRTU, California Independent
System Operator Corporation
Docket No. ER06-615**

Dear Secretary Bose:

Enclosed for filing in the above-captioned docket, please find an electronic copy of the March 2009 MRTU Status Report of the California Independent System Operator Corporation.

Respectfully submitted,

/s/ Sidney M. Davies

Sidney M. Davies

Anna McKenna

California Independent System

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Attorneys for the California Independent
System Operator Corporation

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

California Independent System Operator Corporation)	Docket No. ER06-615
)	
)	

**MARCH 2009 STATUS REPORT OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

The California Independent System Operator Corporation (“CAISO”) respectfully submits the monthly progress report (“Report”) attached hereto in compliance with Paragraph 1415 of the Commission’s September 21, 2006 “Order Conditionally Accepting The California Independent System Operator’s Electric Tariff Filing To Reflect Market Redesign and Technology Upgrade,” 116 FERC ¶ 61,274 (2006) (“September 21 Order”), issued in the above-captioned docket. The September 21 Order requires the CAISO to file monthly reports concerning the progress in designing and implementing the CAISO’s Market Redesign and Technology Upgrade (“MRTU”) and, as required by P 1415 of the September 21 Order, on the status of the CAISO’s MRTU readiness program. The CAISO will continue to file this monthly report on the first Monday of the month until implementation of MRTU.

On January 16, 2009, the CAISO filed its certification of readiness to implement MRTU on March 31, 2009 for an initial trade date of April 1, 2009 subject to meeting important milestones set forth in the certification filing.

The CAISO intends to use the monthly MRTU status reports to update the Commission on the CAISO's progress towards MRTU *go-live*.

Respectfully submitted,

/s/ Sidney Mannheim Davies

Sidney Mannheim Davies

Anna A. McKenna

Counsel for the California Independent
System Operator Corporation

Dated: March 5, 2009

CERTIFICATE OF SERVICE

I hereby certify that I have caused the public version of the foregoing document to be served upon the Public Utilities Commission of the State of California and upon all parties of the official service lists maintained by the Secretary for Docket No. ER06-615.

Dated at Folsom, California, this 5th day of March 2009.

Is/ Anna Pascuzzo

Anna Pascuzzo



March

Readiness Report for MRTU

Market Redesign & Technology Upgrade

Federal Energy Regulatory Commission

March 5, 2009

1. Executive Summary

The California Independent System Operator Corporation (ISO) provides this status report to inform the Federal Energy Regulatory Commission (FERC) of the activities underway in preparation for the Market Redesign & Technology Upgrade (MRTU) launch set for March 31, 2009 (for an initial trade date of April 1).

For the past eight years the ISO and market participants have coordinated and thoroughly prepared for the introduction of the new MRTU electricity markets. Working together we have tested the new systems extensively, identified and resolved thousands of issues and variances, conducted thorough readiness audits both internally and externally, confirmed MRTU design and operations via three third party certifications, and have in place systematic plans to facilitate a successful cutover to the new market design and address possible contingencies. Given this extraordinary preparation effort, which is documented in multiple reports and filings to the Commission over the years, ISO Management is confident that the organization, market participants and the stakeholder community will be ready for a successful MRTU launch.

The ISO continues to collaborate closely with market participants to prepare for MRTU implementation and to ensure that systems, processes, procedures and individuals are ready for *go-live*. These joint efforts are successfully addressing potential implementation impediments and will help ensure a successful program launch. In fact, the ISO recently conducted a final readiness assessment with participants. With more than 80 percent of the participant community responding, the vast majority of participants (96 percent) reported that they will be ready for the March 31, 2009 *go-live*.

The ISO reviewed participant comments filed with FERC last month in response to the ISO January 16, 2009 MRTU Readiness Certification filing. Responses to many of the issues were contained in the ISO answer dated February 18, 2009. The majority of the comments indicated conditional support for the March 31 MRTU implementation. While no new issues were discovered, the parties' comments were generally very constructive, focusing on a limited number of issues requiring attention before *go-live*. The ISO continues to address and communicate with participants individually about specific concerns raised. The open communication and process of addressing issues will continue as the ISO proceeds towards MRTU *go-live*.

Many participants addressed the ISO Board of Governors at its February 10, 2009 meeting with MRTU readiness updates for their organizations. Most participants continued to express conditional support of a MRTU launch on March 31, 2009, pending resolution of issues noted in previous filings. In addition, a member of the Market Surveillance Committee indicated support for the MRTU launch on March 31, 2009.

While the ISO has successfully assuaged many of the concerns regarding the MRTU settlements process and statements, participants remain apprehensive about high MRTU invoices. We appreciate their concerns and have specifically designed *go-live* processes to detect settlements problems, respond quickly and resolve them before settlements statements and invoices are distributed. This new process is described in section 2.2 of this report.

This report includes updated status on the same external and internal preparations discussed in previous reports. All areas are on track to be ready for the March 31 *go-live*. In addition, section 4 of this report summarizes the organization's recent work to ensure all aspects of MRTU cutover, implementation and initial operations are well coordinated. The ISO will file an additional MRTU status report on March 16, 2009 to give an account of additional progress and note any new issues.

2. Current State of Readiness

2.1. Quality of Price Solution

The ISO believes there are no material issues with quality of solution to impede MRTU implementation on March 31, 2009. MRTU systems continue to produce price solutions that are accurate and explainable. While some anomalous prices continue to be produced, they are caused by the same simulation limitations outlined in previous status reports. After analysis, the ISO concluded that anomalous prices are both appropriate and understandable, given the inputs.

Specifically, the Department of Market Monitoring (DMM) shared their recent findings at a participant meeting on February 19, 2009. The market monitor reported that anomalous prices are less frequent, price convergence between day-ahead, HASP and real-time prices improved, and Local Market Power Mitigation (LMPM) is working as intended. Additionally, ISO staff provided market participants with a more detailed analysis of potential root causes of anomalous prices with particular focus on addressing the quality of solution concerns raised by the Investor Owned Utilities in their joint comments on the ISO Certification filing.

The MRTU price validation and correction process is now fully implemented to the extent possible within the accelerated settlement timeline for market simulation. There are three components to the validation and correction process: price corrections, data fill for missing data and price cap implementation. In addition, the ISO is implementing a price blocking process whereby prices above/below certain levels will be screened and not be published until the price has been analyzed for correctness. The ISO committed to unblock the reviewed and potentially corrected prices within 48 hours or sooner if practical. However, even an unblocked price is still subject to the price validation and correction process. To determine which prices will be temporarily withheld from posting and subject to additional review before publication, the ISO has developed the following screens that will be executed before the publication of all Energy, Residual Unit Commitment (RUC) and Ancillary Services (AS) prices in both the Day-Ahead and Real-Time Markets.

SCREEN	PRICES WITHHELD
System Marginal Energy Cost exceeds \$500/ MWh or is less than negative \$30/ MWh.	All LMPs for the applicable interval.
Default LAP LMP exceeds \$750/MWh or is less than negative \$45/MWh.	All LMPs for the applicable interval.

SCREEN	PRICES WITHHELD
System Marginal Energy Cost component of RUC Prices exceeds \$250/MW or is less than \$0/MW.	All RUC Prices for the applicable Trading Hour.
Ancillary Service Marginal Price for a product exceeds \$500/MW or is less than \$0.	All Ancillary Services Marginal Prices for the affected Ancillary Service product and for the applicable interval.
Any nodal LMP that exceeds \$1000/MWh or is less than negative \$60/MWh.	Any nodal LMPs identified by the screen.
Any RUC Price that exceeds \$500/MW or is less than \$0/MWh.	Any RUC Prices identified by the screen.

The ISO will continue to monitor MRTU prices throughout program implementation and after *go-live* and take appropriate action as necessary.

2.2. Settlements

The ISO continues to produce daily and monthly settlement statements. Settlements totals continue to be impacted by simulation limitations and upstream data issues including meter data, which produced high statement totals in January. The ISO researched and corrected a number of simulation and data issues, the largest of which were:

- An Energy Management System (EMS) simulator issue drove the real-time load forecast to artificially high levels. This is a simulation issue and would not likely occur in production. If it did occur in production, the inconsistent forecast versus EMS would be immediately apparent and corrected by the Operator.
- A software variance enforced a zero megawatt limit for all nomograms starting at the end of every hour and resulting in unrealistic solutions for interval 12 for several days. This is a software issue that has been fixed.
- Path 15 limits were swapped so that the north-to-south limits were interpreted as south-to-north limits. This is a modeling issue in one application that has also been fixed.
- High congestion components caused by cutting of inter-tie schedules. This was associated with an Operator scenario and would not have happened in production.

In addition to the above issues, low participant levels and other simulation-related issues are key drivers of high settlements statements. The lack of production quality meter data is particularly problematic and drives very high charges for neutrality and unaccounted for energy. This condition impacts nearly all market participants, even those that have fairly accurate meter data.

The ISO will continue to publish daily and monthly statements and invoices for MRTU simulation through trade date March 12, 2009. A publication calendar¹ for

¹ The MRTU settlements publication calendar is available at: <http://www.caiso.com/203d/203de6aacf80.xls>

settlements statements is available on the ISO web site. The ISO also continues to work with participants to help validate settlement charge codes and complete the development of participant shadow settlements systems. While participants continue to be uneasy about the MRTU settlements system, the ISO is confident the systems are stable, correct and ready for MRTU production. The ISO will continue to work with participants to help them understand their market simulation settlement statements and to help them gain more realistic expectations for MRTU *go-live*. Importantly, the ISO will monitor MRTU liabilities as they accrue and will work with participants whenever potential liabilities could exceed reasonable expectations.

2.3. Parallel Operation Simulation & Pre-Production

The ISO and participants entered the final stage of system testing, pre-production on March 1, 2009. During the final 30 days preceding launch, MRTU simulation will mirror the daily operations currently in ISO production. New MRTU systems will receive and process production data and telemetry and will use production forecast, load and outage information. Participants will parallel the current production environment by submitting bids and schedules into production operations and MRTU in parallel, producing an important opportunity to refine their processes and prepare for *go-live*.

MRTU systems were relatively stable in February, given the level of finalization required and the number of fixes applied. The known issues and system variances reported in the January readiness certification are all tentatively resolved, including two new issues added in February in response to participant requests (this list, which includes the state of each item is discussed in Section 6 of this report). As of March 1, 2009, a system freeze is in place with MRTU systems. No additional major system fixes will happen unless they are deemed critical to a successful program launch, and even then a strict change management process will provide participants with adequate notification and explanation.

In February, the final four system operations tests were successfully completed to ensure the ability of the ISO and participants to cutover to MRTU systems and coordinate market and reliability functions. These open and partial closed loop tests enable data transfers between the Energy Management System (EMS) and the Real-Time Market dispatch module to produce a market solution based on real-time load forecasts, load following requirements and real time outages. The ISO conducted a total of seven Systems Operations Tests in recent months. They are described in the System Operations Test Plan² available on the ISO website. A summary of test results and lessons learned is also available.

Finally, a critical aspect of readiness is testing the redundancy of systems and practice of back-up processes and procedures. The ISO conducted several fall-forward and fall-back tests in February to validate the ability to switch system operation to the Alhambra

² The MRTU System Operations Test Plan is available at: <http://www.caiso.com/20ad/20adba2452b30.html>.

control center and back to the primary center in Folsom. These successful tests confirm that the ability of the ISO to operate MRTU systems reliably.

2.4. Grid Operations Readiness

At this juncture, Grid Operations readiness activities are primarily two-fold: operators are managing daily execution of the MRTU test markets and operator crews are attending week-long training sessions to practice grid management with new MRTU systems.

The MRTU testing/training team relocated to the ISO operations floor in early February to facilitate greater synergy between real-time operation of the current ISO markets and the MRTU test markets. On a daily basis, this team manages the multiple market runs and also monitors and adjusts the simulated grid operation, including execution of the System Operations Tests described in Section 2.3 of this report.

Simultaneously, operator crews are rotating through the training lab on a weekly basis to conduct practice runs and scenarios with MRTU systems. At the time of this report, four of the six crews completed this training and the ISO is on track to have the entire team complete training by mid-March. The main focus of the training is to practice operating the new systems and encourage communication and teamwork among crew members. Each crew responds to 15 scenarios, reflecting typically grid events. At the end of the training week, operators are proficient with system functionality and able to maintain optimum grid control under differing conditions and contingency situations.

The scenario testing provides operators an opportunity to review and update operating processes and procedures to ensure they are up-to-date, reflective of the new MRTU operating paradigm and compliant with regulatory standards. In the last two weeks prior to MRTU go-live, grid operations crews will complete refresher training to confirm their proficiency with the new systems and processes. These practice sessions, documentation reviews and refresher courses all work in concert to produce an effective and efficient team of operators prepared for MRTU *go-live* and the management of a reliable power grid.

2.5. Department of Market Monitoring Readiness

Readiness preparations for DMM systems and tools continue to progress with the following accomplishments in February:

- Several enhancements were made to the relational database established for market monitoring including additional market data, corrections to existing data tables, and various data structure changes to improve performance. This database is now essentially complete though it will continue to be refined and fine tuned over the next several weeks.
- A final list of frequently mitigated units was provided to the MRTU implementation team and Potomac Economics.
- Competitive path designations, used in the MRTU Local Market Power Mitigation procedures, have been finalized and provided to the MRTU

implementation team. A report with this information was publicly posted to the ISO website on March 3, 2009.

The DMM simulation environment will be updated in coming days to be coincident with MRTU go-live systems. Following that, achieving system stability and completing testing of various automated routines will be the priority before program launch.

Monitoring metrics continue to be refined by DMM staff. This is an on-going process that continues up to and following MRTU *go-live*.

3. Cutover & Reversion Plan

The MRTU Cutover and Reversion Plan³ is final and available on the ISO website for reference. The plan describes the activities the ISO and participants will undertake to transition to the new MRTU markets as well as the process for reversion in the unlikely event that operations warrant a return to pre-MRTU systems.

The ISO hosted two participant meetings in February to review and finalize cutover and reversion plans for both the ISO and participants. A technical workshop was held February 5, 2009 to discuss possible technical challenges that could arise during cutover and reversion and to identify solutions. Then on February 18, at the monthly MRTU Implementation Workshop, the ISO and participants reviewed and confirmed the cutover/reversion tasks and business continuity processes.

Pursuant to the Cutover and Reversion Plan, the ISO and market participants will undertake various activities, including cutover testing to ensure they are able to transition smoothly (*i.e.*, cut over) from the currently effective ISO market design and software to the MRTU market system. The reversion portion of the plan describes the process for reverting to the pre-MRTU tariff in the unlikely event, and as a last resort, that the ISO finds that it cannot operate the grid reliably after all efforts to maintain operations under MRTU have been considered.

The comprehensive Cutover and Reversion Plan coupled with the *Go-Live* Support Plan described in section 4 of this report will serve to coordinate an efficient and successful launch process and period of initial operations for the new MRTU market structure.

4. MRTU *Go-Live* Support Plan

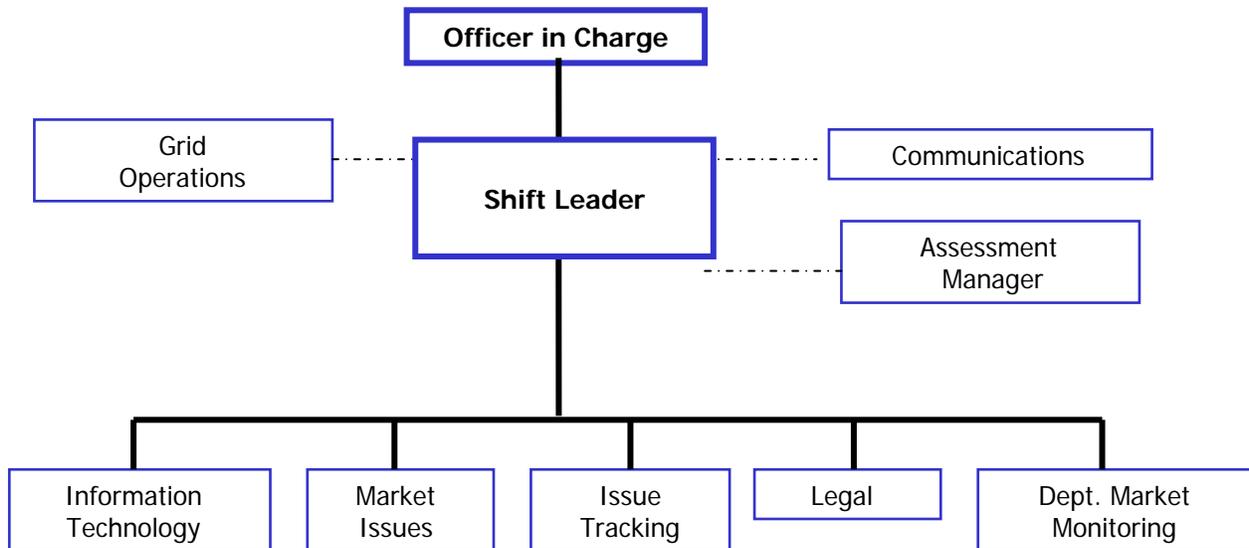
³ The final MRTU Cutover & Reversion Plan is available on the ISO website at: <http://www.caiso.com/200c/200c82b849e30.pdf>.

The ISO is developing a comprehensive MRTU *Go-Live* Support Plan⁴ to ensure sufficient resources are available for the period leading up to MRTU *Go-Live* and for the first 30-60 days following cutover to the new market design. The primary objectives of this plan are:

- Maintain reliable grid operations during the *go-live* period
- Ensure the integrity and efficiency of the new markets
- Provide internal leadership and coordination surrounding communication and decision-making
- Provide staffing to support a 24x7 focus on internal operations and participant issues
- Document and respond quickly and effectively to issues that arise during the *go-live* period
- Communicate effectively internally and externally
- Respond quickly and appropriately to any observed and/or reported anomalies in market performance or behavior.

4.1 *Go-Live* Team Structure and Roles

The ISO has established predefined roles and responsibilities for *go-live* to ensure responsive and efficient response management with the right mix of ISO management and subject matter experts available at the ready. The high-level structure of the *go-live* team is:



ROLE	PRIMARY FUNCTION
Executive in Charge	Executive point of control and decision-maker, communication with

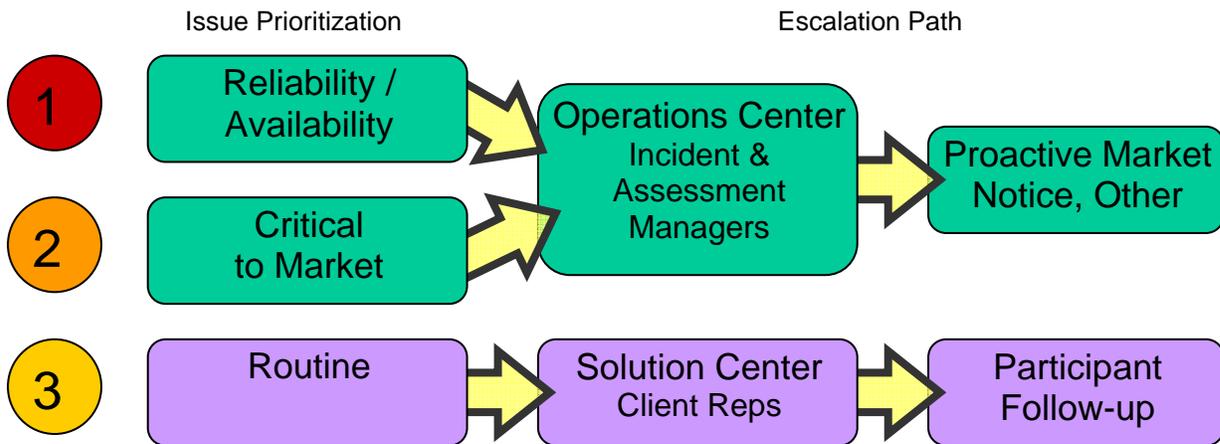
⁴ The MRTU *Go-Live* Support Plan was presented to participants at the February Implementation Workshop. The meeting presentation is available at: <http://www.caiso.com/2359/235982e83ec20.pdf>.

	Executive Team.
Shift Leader	Provides overall leadership for the response process.
Assessment Manager	Coordinate internal resources to respond to events.
Grid Operations	Ensure that all <i>go-live</i> issues are documented properly. Prevent and resolve bottlenecks and monitor response and resolution timeframes.

ROLE	PRIMARY FUNCTION
Communications	Manage communication with participants, employees and the media regarding <i>go-live</i> status.
Issue Tracking	Ensure that all <i>go-live</i> issues are documented properly and resolved in a timely manner.
Information Technology	Proactive monitoring of all critical systems to ensure resources remain available.
Market Issues	Lead the assessment, analysis and resolution of high priority market issues with a bid-to-bill focus.
Legal	Provide legal guidance for issues that arise.
Market Monitoring	Monitor market behavior and analyze market activities to identify anomalous solutions.

4.2. The Rapid Response Incident Management Process

The ISO has developed a detailed process for the prioritization, assessment, analysis, resolution and communication of issues that may arise. This process is the central component of the MRTU *Go-Live* Plan. Issue prioritization is the first step and all reportable events will be assigned a priority one, two or three, which determines the resolution path and attention received. All reported issues will be addressed in a timely manner, but reliability and critical system and market operations issues will be expedited. This process is illustrated in the diagram below:



The process is specially designed to identify and address the following issues quickly and efficiently:

- **Market Optimization Issues** – Market solutions are not optimal, software is not working as intended, etc.

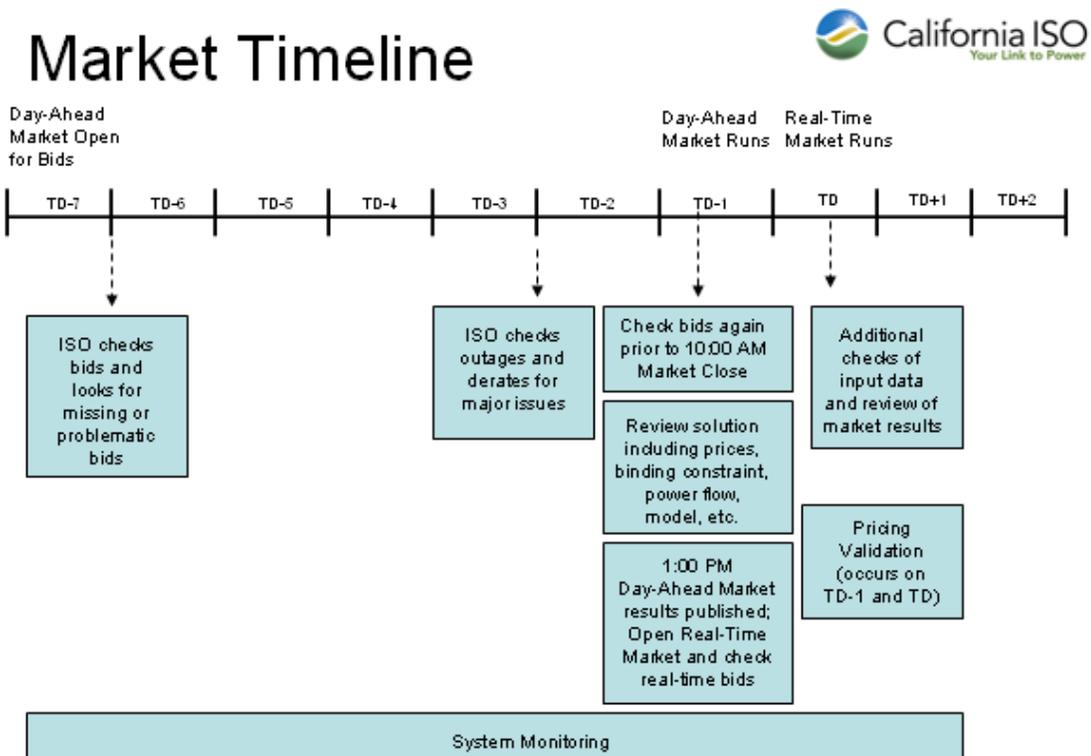
- **Market Design Deficiencies** – Certain aspects of the MRTU market design prove problematic and create inefficient or otherwise undesirable market outcomes.
- **Market Behavior/Strategies** – Market participants engage in potentially inappropriate market behavior that might warrant action from DMM and FERC Enforcement.

A flow chart illustrating the full Rapid Response Incident Management Process is provided in Appendix 8.2. of this report.

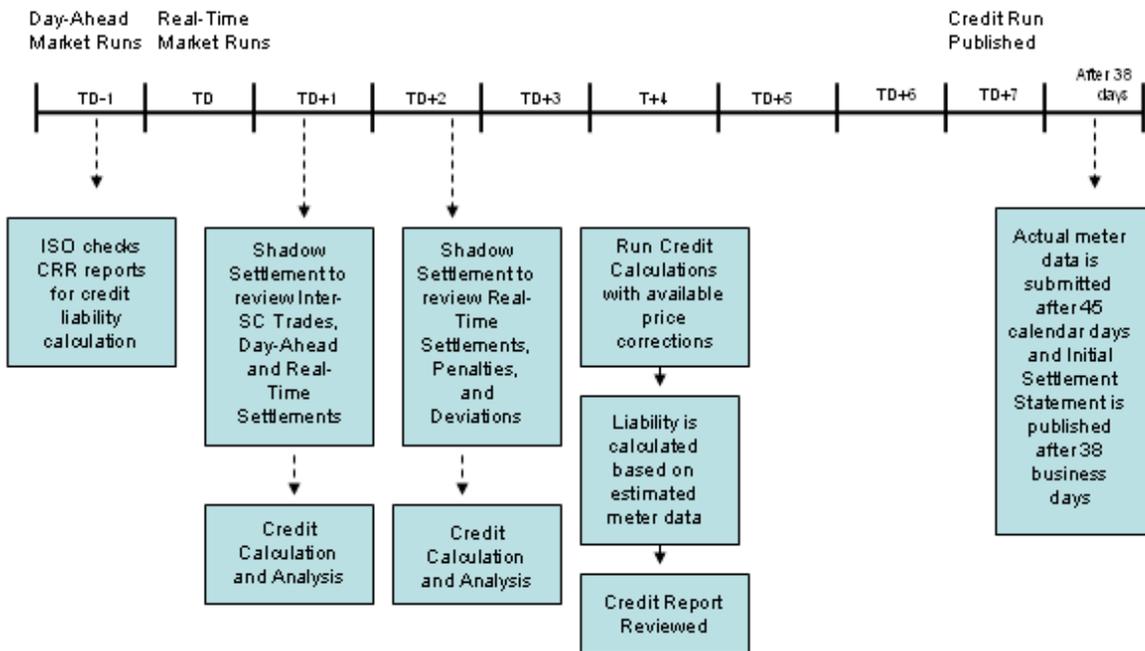
4.3 Monitoring Liability Accrual

Additionally, the ISO *Go-Live* Team will monitor the MRTU markets seeking to avoid unintended financial consequences for participants as they gain experience with the new market. The team will accomplish this by reviewing accepted bids and shadow settlement statements to anticipate the financial impacts participants will face as a result of their activities. The timelines and checkpoints to be monitored are represented in the timelines that follow.

The ISO will also monitor the accrual of liabilities associated with neutrality and unaccounted for energy and make appropriate adjustments to each market participant’s Estimated Aggregate Liabilities to reflect anticipated meter data.



Post Market Timeline



5. Remaining Activities & Essential Milestones

As discussed above, many critical MRTU-related activities and milestones are already complete. Certain activities and milestones still remain prior to implementation of MRTU. The primary remaining activities and milestones, and the anticipated time frame⁵ by which the ISO expects they will be completed, are:

Timeframe	Activity/Milestone	Status
Jan. – Feb.	Continue to publish daily and monthly settlement statements to allow Market Participants to validate Charge Codes and test their systems.	On Track
Jan. – March	Continue to finalize procedures and exercise post <i>go-live</i> processes for grid operators.	On Track
February	Test “fail over” procedures for utilizing the ISO alternative Control Center.	Complete
	Finalize the MRTU Cutover and Reversion Plan.	Complete

⁵ Although the essential milestones need to be completed, the time frame for completion is estimated. Failure to meet a milestone within an estimated timeframe does not mean that MRTU should be delayed. So long as milestones are completed prior to *go-live* and operating properly, the ISO believes that the essential milestones will have been successfully met.

Timeframe	Activity/Milestone	Status
February	Develop a process to validate prices, and if necessary, correct them prior to publication. The ISO will use the price validation and correction tools already in place pursuant to the MRTU Tariff.	On Track
	Begin the process of allocating and auctioning monthly Congestion Revenue Rights to market participants for April 2009.	On Track
March	Begin pre-production (on 3/1) and initiate cutover activities (on 3/15).	On Track
	Ten days prior to <i>go-live</i> , issue a Market Notice affirming continued MRTU readiness and reporting any pending requirements.	On Track
	Three days prior to <i>go-live</i> , issue a Market Notice confirming MRTU launch on March 31.	On Track
	At the end of March, PricewaterhouseCoopers will provide a certified audit opinion confirming that the MRTU settlements software calculates quantities and prices in compliance with the MRTU Tariff.	On Track

If for any reason the ISO determines that, due to an inability to attain any critical milestone, the ISO is unable to implement MRTU as of March 31, 2009, it will inform the Commission and market participants as soon as possible.

6. Known Issues Requiring Resolution Prior to *Go-Live*

The following are the known, significant issues reported in the January 16 MRTU Readiness Certification filing. Thirteen issues were originally included on this list and the ISO added two more the week of February 9, 2009 in response to participant requests. At this time of this report, the ISO has successfully addressed all of the issues.

The final software variance (number 6 within the table below), often referred to as “simplified ramping,” was deployed on February 25 and was backed out of the MRTU environment on March 2 due to inconsistent performance over a wide range of conditions. Simplified ramping was pursued because it improved MRTU software performance while also honoring resource specific constraints. Unfortunately, those gains were not realized and the solution proved unstable. The ISO will therefore *go-live* with the current, stable ramping solution. This was anticipated as a possible outcome and the ISO is prepared. All related variances known at this time are closed, including those associated with honoring resource specific constraints, and the performance improvements expected from simplified ramping are retrofitted.

The ISO clarified this approach with participants during a teleconference on March 5, 2009. A presentation and technical bulletin are posted that further details the current

ramp rules.⁶ The ISO will file a motion in the pending “bucket” proceeding, ER09-556, to request a deferred effective date for the pending tariff revisions related to the simplified ramping approach.

No.*	ISSUE DESCRIPTION	MQC	STATUS
1	Energy and cost accounting issues associated with real-time bids for Pumped-Storage Hydro Units.		Resolved
2	Systems should recognize and not shut down resources in real-time that are unable to honor their Day-Ahead Market commitments.	16570	Resolved
3	Add Point of Delivery (POD) pricing location to the Master File for resources modeled at locations other than their interconnection point which impacts Open Access Same-Time Information System (OASIS) reporting.		Resolved
4	Tune Real-Time Market systems to ensure that an issue with Short-Term Unit Commitment (STUC) solution timing is resolved and solution infeasibilities are minimized.		Resolved
5	Honor resource start times in RUC and real-time, ensuring they are not dispatched earlier than is operationally feasible based on the unit’s down time.	17085	Resolved
6	Cross-hour ramping results are inconsistent for resources with multiple ramp rates and offering regulation ramps.	15650	Resolved. The original tariff provision which addresses performance issues will be implemented. See discussion above.
7	Resource-specific prices are inconsistent with the associated Pricing Node or Aggregated Pricing Node prices.		Resolved # See note below.
8	Spin and non-spin quantities published in the ISO Market Results Interface (CMRI) are inconsistent with original SaMC Self-Provided Spin Capacity. This will resolve the observed dropping of self-provided spin and non-spin.		Resolved
9	Adhere to WECC interchange scheduling convention that requires interchange values to be an integer value.	13497	Resolved
10	OASIS calculations for Available Transmission Capability (ATC) and transmission usage need to correctly account for Existing Transmission Contract (ETC)/Transmission Ownership Right (TOR) rights.	12964	Resolved

⁶ The presentation regarding ramp rates is available at: <http://www.caiso.com/2368/23687c996b230.pdf>

No.*	ISSUE DESCRIPTION	MQC	STATUS
11	Enforce the daily energy limit of resources consistently in the Real-Time Market. It should be noted that daily Energy limit is a soft constraint and there may be legitimate solution reasons that daily Energy limit could be exceeded in extreme cases.	13800	Resolved. The software fix is in test and under evaluation.
12	Correctly account for power flow losses by adjusting load when a direct current (DC) solution is necessary.	16014	Resolved
13	An inconsistent SIBR rule does not allow exports not associated with capacity from a supporting resource to receive the same high priority as exports that are associated with capacity from a supporting resource.	16266	Resolved
14	Address real-time results enforcing Ancillary Services requirements and awards.		Resolved
15	Provide Dispatch Operating Target (DOT) breakdown for contingency dispatch.		Resolved

* Number relates to listing order within MRTU Certification Filing to FERC dated 1/16/2009.

NOTE: Two new issues (14 & 15) were added the week of Feb. 9 in response to participant requests.

NOTE: The original issue represented in #7 was resolved with deployment of a software fix. Subsequently, the ISO found an issue with the consistency between POD and physical location resource prices. Resolution of this secondary issue is expected within days.

In addition to the above list of known issues, the ISO acknowledges a recent concern raised by some participants about a time lag experienced with system recognition of outage schedules and derates. This situation will be closely monitored and mitigated to the degree possible.

7. Status of Commission Filings & Request for Commission Action

The Commission recently acted on many filings relating to the MRTU initiative including several that were critical, such as Exceptional Dispatch and parameter tuning tariff amendments, to the ISO and market participants. The ISO appreciates the efforts of the Commission and its staff in this regard. The ISO respectfully urges the Commission to rule on the following filings before MRTU *go-live*:

- (1) January 15, 2009 filing in Docket No. ER09-556-000 et al containing miscellaneous MRTU Tariff clarifications based on findings by the SAIC audit of the tariff, and other miscellaneous tariff clarifications.
- (2) January 29, 2009 filing in Docket No. ER09-589 concerning enhancements to the credit policies in the MRTU Tariff.

In addition, on November 25, 2008, the ISO made its filing on compliance with the Commission's September 19, 2008 order on the Integrated Balancing Authority Area filing in

Docket ER08-1113. The ISO is proceeding with the implementation of the procedures for Market Efficiency Enhancement Agreements and the marginal losses adjustment procedures as proposed in its compliance filing. While an order is not essential from an operations perspective, confirmation of the approaches filed on compliance would avoid any refunds after *go-live*.

Also, the ISO has made a number of additional MRTU filings with the Commission. The ISO does not believe it is necessary for the Commission to issue orders on these filings prior to MRTU *go-live*. Nevertheless, Commission orders on these pending matters prior to *go-live* would also serve to reduce regulatory uncertainty for both the ISO and market participants. As the ISO intends to file the Order 614 conformed MRTU tariff on March 24, 2009, the ISO would appreciate orders on the tariff amendment or compliance filings noted below prior to March 24. The filings in this category include:

- (1) Metered-SubSystem agreement updated for MRTU with Silicon Valley Power, filed on November 13, 2008, in Docket No. ER09-292.
- (2) May 19, 2008 Filing in Compliance with March 24, 2008 Order on Technical Conference and Compliance in Docket Nos. ER06-615-023 and ER07-1257-005.
- (3) Request for a waiver of OASIS requirements under MRTU that is similar to the existing waiver of OASIS requirements under the ISO current market design filed on January 23, 2009.
- (4) Tariff amendment filing to allow ISO management to have discretion to assign responsibilities between its Folsom and Alhambra control centers under MRTU to be filed on or about February 13, 2009.

The ISO also notes that pursuant to a directive in the Commission's December 4, 2008 order,⁷ the ISO will submit an informational filing of the MRTU Tariff sheets showing a March 31, 2009 effective date, to be filed prior to *go-live*. The ISO intends to make this filing on or about March 24, 2009.

8. Attachments

8.1. MRTU Readiness Criteria Dashboard, dated January 30, 2009.

8.2. MRTU Go-Live Rapid Response Incident Management Process.

⁷ *California Independent System Operator Corp.*, 125 FERC ¶ 61,262, at P 119 (2008).

Attachment 8.1

MRTU Readiness Criteria Dashboard



MRTU Readiness Criteria Dashboard

February 27, 2009

This Dashboard is designed to display the status of each MRTU Readiness Criteria. Readiness Criteria status is indicated by the following color codes:

- Clear: A Readiness Criterion is clear (C) if:
 - The Readiness Criterion has not begun.
- Purple: A Readiness Criterion is purple (P) if:
 - The completion or status updates are on schedule based on the specified target due date or milestone, OR
 - A mitigating action has been implemented successfully and the Readiness Criterion is back on schedule to be completed on the specified target due date.
- Orange: A Readiness Criterion is orange (O) if:
 - One or more Readiness Components in that Readiness Criterion are not complete on the specified target due date or milestone, OR
 - A Readiness Criteria has reported risks or issues that have a potential for not allowing it to be completed on the specified target due dates or milestones.
- Blue: A Readiness Criterion is blue (B) if:
 - All Readiness Components in that category are complete.

Note: An additional Tab (Open Criteria) was added that contains only the open MRTU Readiness Criteria (and sub-criteria).

Disclaimer:

These readiness criteria will help the CAISO to determine the status of design elements and processes that must be in place to ensure implementation of MRTU Release 1 without undue risk to the CAISO or its Market Participants. The CAISO reserves the right to revise these criteria. The CAISO's certification of readiness to be filed with FERC 60-days prior to the proposed effective date of MRTU will be based on all information available to the CAISO including, but not limited to, status of readiness criteria, including mitigating actions, advice of Market Participants and the informed business judgment of CAISO senior management.

Integrated Market Simulation

R1: 4/30/07 - 5/18/07; R2: 5/29/07 - 7/20/07;

R3: 9/24/07 - 11/09/07; U1: 11/13/07 -12/21/07;

U2: 02/19/08- 01/04/09 PPS: 03/01/09

February 27, 2009

MRTU Readiness Criteria Dashboard

Readiness Criterion Identifier	Readiness Category	Readiness Criterion	Criterion Component Status	Target Due Date / Market Simulation Phase	Overall Category Status	Documentation and Comments	Issues and Mitigating Actions
CRR - 3	CRR	CAISO will complete the first annual process for allocation of 1-Year CRRs and LT CRRs and for auction of 1-Year CRRs, and first monthly allocation and auction of monthly CRRs.		TBD	P		
		CRR - 3.2 The first production run of 1) the annual process for allocation of 1-Year CRRs and LT CRRs, and for auction of 1-Year CRRs; and 2) first monthly allocation and auction of monthly CRRs are complete.	P	1/27/09			
		3. Start of Monthly Allocation Process	●	Exit PPS		February 2009 Update The Monthly CRR Allocation and Auction activities have begun. The schedule has been posted on the website at: http://www.caiso.com/2335/23359275430	
		3.1 Complete and post Monthly Allocation results	○	Exit PPS			
		4. Start of Monthly Auction Process	●	Exit PPS			
		4.1 Complete and post Monthly Auction results	○	Exit PPS			
ENT - 1	Enterprise Systems	CAISO will verify that its enterprise systems meet availability requirements. This will be demonstrated by establishing Service Level Agreements (SLAs) for IT support, development, and implementation of monitoring tools and achieving availability requirement		Exit PPS	P		
		ENT - 1.3 Each enterprise system meets its minimum availability requirement during the PPS market simulation.	P	Exit PPS		Minimum PPS availability cannot be confirmed until PPS phase. February 2009 Update All monitoring for this criterion is in place.	
INF-1	Infrastructure	CAISO will meet the MRTU system architecture requirements, including information monitoring processes and tools and availability and stability standards during market simulations.		Exit PPS	P		
		INF- 1.5 The final production environment is configured for Go-Live.	P	Exit PPS		February 2009 Update The Production environment has been available to support Market Simulations and will be used in Parallel Operations and is required prior to entering PPS. As outlined in the Cutover plan, the certain legacy systems still need to be integrated into the environment. This will be completed in March 2009 prior to exit PPS.	
MS-1	Market Systems	Sim - 1.5 The Pre-Production Simulation (PPS) entry and exit criteria are met.	P	Exit PPS		February 2009 Update The CAISO will enter PPS on the first week of March.	
SIM - 1	Market Simulation	In advance of each of the market simulations, CAISO, with input from stakeholders, will establish entry and exit criteria. The entry and exit criteria will be posted on the CAISO website. The entry and exit criteria from each Market Simulation will be me		Exit PPS	P		
		Sim - 1.5 The Pre-Production Simulation (PPS) entry and exit criteria are met.	P	Exit PPS		February 2009 Update The CAISO will enter PPS on the first week of March.	
ORG - 3	Organizational Readiness	CAISO will establish the tools and environments required to support the market monitoring, enforcement, and compliance functions.		60 Days Prior to Market Launch	P		

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		<p>ORG - 3.1 All data identified by the Department of Market Monitoring (DMM) Unit as critical for market monitoring will be stored in an organized relational database, thoroughly documented, and will be made available to the Department of Market Monitoring</p>		<p>60 Days Prior to Go-Live</p>		<p>• Enterprise Data Repository (EDR): Project is near completion for critical (to DMM) six market applications, and further enhancements have been made by EDR Team. Issues still exist with representation of Master File data, DEB input data, and expanded t</p>	

Integrated Market Simulation

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MRTU Readiness Criteria Dashboard

Readiness Criterion Identifier	Readiness Category	Readiness Criterion	Criterion Component Status	Target Due Date / Market Simulation Phase	Overall Category Status	Documentation and Comments	Issues and Mitigating Actions
		<p>ORG - 3.3 A Market simulation tool (the MRTU Sandbox / DMM Tool) that is based on the actual CAISO market software will be developed and tested by the CAISO MRTU Team and made available to the Department of Market Monitoring (DMM) Unit three months prior</p>	P	90 Days Prior to Go-Live		<p>January 2009 Update:</p> <ul style="list-style-type: none"> • DMM Sandbox is on site and is being used by DMM. • Reliability issues are being addressed, along with software versioning and save-case access. • DMM is working closely with IT and MRTU PMO on issue resolution. Continued focus an 	
STL- 1	Settlements	CAISO will complete a Settlement and Market Clearing (SaMC) audit. The purpose of the audit will be to ensure that the SaMC software performs as defined in the CAISO MRTU Tariff.		1 Day Prior to Market Launch	P		
		<p>STL - 1.2 An audit by an independent firm that validates the consistency of the SaMC software with the CAISO tariff is completed per the tariff timeline.</p>	P	1 Day Prior to Market Launch		<p>November 2008 Update: The audit is scheduled to be completed by early December 2008.</p>	

MRTU Readiness Criteria Dashboard

Readiness Criterion Identifier	Readiness Category	Readiness Criterion	Criterion Component Status	Target Due Date / Market Simulation Phase	Overall Category Status	Documentation and Comments	Issues and Mitigating Actions
STL- 2	Settlements	CAISO will test and implement its final settlement charge code configuration. The final configuration must include required changes from market simulation activities, the Grid Management Charge (GMC), and any changes arising from the 9/21/06, 4/20/07, 5/		Entry PPS		December 2008 Update: The CAISO continues to work with Market Participants with settlement charge code validations. The "Daily Charge Code Status" is posted on the website at: http://www.caiso.com/1c2d/1c2d9ced4aa60.html#1caacdff53ca0 Market Participa	
STL- 3	Settlements	CAISO will publish accurate and complete settlement statements and invoices during Update 2 of the Integrated Market Simulation phase. The published statements and invoices will be consistent with market participants activities during Update 2 of the Inte		Entry PPS		December 2008 Update: The CAISO continues to work with Market Participants with settlement charge code validations. The "Daily Charge Code Status" is posted on the website at: http://www.caiso.com/1c2d/1c2d9ced4aa60.html#1caacdff53ca0 Market Participa	
TECH - 1	Technology	The Technical Operational Readiness Testing (ORT) exit criteria will be satisfied and approved by the CAISO Business Owners and the Director of MRTU IT. ORT exit criteria will include: 1. Successful completion of high availability testing. 2. Fault tol		Entry PPS			

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MRTU Readiness Criteria Dashboard

Readiness Criterion Identifier	Readiness Category	Readiness Criterion	Criterion Component Status	Target Due Date / Market Simulation Phase	Overall Category Status	Documentation and Comments	Issues and Mitigating Actions
BPM - 1	BPM	<p>CAISO will prepare Business Practice Manuals (BPMs), intended to contain implementation detail, consistent with and supported by the CAISO Tariff, including: instructions, rules, procedures, examples, and guidelines for the administration, operation, planning, and accounting requirements of CAISO and the markets.</p> <p>The CAISO Business Practice Manual (BPMs) will be completed and posted on the CAISO website to allow Market Participants the opportunity to review and comment on each BPM. CAISO will facilitate stakeholder review meetings to discuss critical issues. (This criterion is subject to change based on the output of the FERC Technical Conference.)</p> <p>CAISO will also establish and communicate to FERC and Market Participants a BPM change management process that describes the procedure that is used to update the BPMs after MRTU implementation.</p>		3/31/08			
		<p>BPM - 1.1 The "Initial Version Release" BPM requirements are complete.</p>		1/19/07			
		<p>1. The following "Initial Version Release" BPMs are prepared and published to the CAISO website incorporating stakeholder feedback and resolved critical issues, in preparation for Business Structure Market Simulation:</p> <ul style="list-style-type: none"> - BPM for Compliance Monitoring - BPM for Congestion Revenue Rights - BPM for Definitions & Acronyms - BPM for Market Instruments - BPM for Market Operations - BPM for Metering - BPM for Outage Management - BPM for Reliability Requirements - BPM for Rules of Conduct Administration - BPM for Scheduling Coordinator Certification and Termination - BPM for Settlements and Billing - BPM for Managing Full Network Model 		5/1/06 - 7/31/06		<p>The following BPMs were posted on 5/1/06: BPM for Definitions and Acronyms; BPM for Market Instruments; BPM for Market Operations; BPM for Settlements and Billing.</p> <p>The following BPMs were posted on 7/31/06: BPM for Compliance Monitoring; BPM for Congestion Revenue Rights; BPM for Definitions & Acronyms; BPM for Market Instruments; BPM for Market Operations; BPM for Metering; BPM for Outage Management; BPM for Reliability Requirements; BPM for Rules of Conduct Administration; BPM for Scheduling Coordinator Certification and Termination; BPM for Settlements and Billing; BPM for Managing Full Network Model.</p>	
		<p>2. Stakeholders are provided with opportunity to review, provide comments, and identify critical issues for each BPM.</p>		7/31/06 - 8/29/06		<p>Stakeholders were allowed to submit their questions / comments to the BPM In-Box up to 2 weeks prior to each BPM meeting. Stakeholder questions on each BPM and CAISO responses can be found at: http://www.caiso.com/186a/186ae8622e6f0.html</p>	
		<p>3. CAISO facilitates BPM review meetings for each BPM as appropriate to collect comments and discuss critical issues.</p>		8/29/06 - 10/5/06		<p>Seven organized BPM Stakeholder meetings occurred between 8/29/06 and 10/5/06. Details of each set of meetings that occurred, and which BPMs were covered can be found at: http://www.caiso.com/1872/1872e51451200.html</p>	

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MRTU Readiness Criteria Dashboard

Readiness Criterion Identifier	Readiness Category	Readiness Criterion	Criterion Component Status	Target Due Date / Market Simulation Phase	Overall Category Status	Documentation and Comments	Issues and Mitigating Actions
		4. Revised Draft Version BPMs are posted to the CAISO website.	●	1/19/07		The following BPMs were posted on 1/19/07: BPM for Compliance Monitoring; BPM for Congestion Revenue Rights; BPM for Definitions & Acronyms; BPM for Market Instruments; BPM for Market Operations; BPM for Metering; BPM for Outage Management; BPM for Reliability Requirements; BPM for Rules of Conduct Administration; BPM for Scheduling Coordinator Certification and Termination; BPM for Settlements and Billing; BPM for Managing Full Network Model.	
		BPM - 1.2 Subsequent BPM updates due to FERC requirements & Market Simulation are further developed.	B	8/3/07			
		1. Stakeholders are provided the opportunity to review, provide comments, and identify critical issues for each of the Market Simulation Release BPMs that were posted on January 19, 2007.	●	1/19/07 - 3/2/07		A market notice was sent out on January 12, 2007 providing details to Stakeholders on how to submit comments on the revised BPMs posted on 1/19/07.	
		2. CAISO hosts Compliance Process for Business Practice Manuals call.	●	2/7/07		Conference call was held from 2:00 PM to 3:00 PM on 2/7/07.	
		3. CAISO drafts MRTU Tariff Language and posts to CAISO website along with reconciled BPMs.	●	4/2/07		All BPM revisions were posted by 6/7/07.	
		4. CAISO allows stakeholders to review and comment on BPM updates.	●	12/3/07		Individual BPM status can be found under the heading "BPM Completion Status Reports" at: http://www.caiso.com/17ba/17baa8bc1ce20.html BPMs have all been updated based on comments provided by stakeholders. As BPM modifications continue to occur, Stakeholders will have the opportunity to review and comment.	
		5. CAISO holds a conference call or meeting with Stakeholders on proposed MRTU Tariff Language.	●	4/17/07		BPM Tariff Language call was held from 1:00 PM - 4:00 PM on 4/17/07.	
		6. CAISO files additional proposed MRTU Tariff language to support BPMs and posts revised BPMs to CAISO website.	●	8/3/07		BPM Tariff Language was filed with FERC	
		7. The FERC Technical Conference held.	●	Fall 2007		Technical Conference held 9/26 - 9/27 in Washington D.C.	

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		8. The CAISO complies with all FERC Technical Conference directives. - Post all revised BPMs as a result of the FERC Technical Conference - File proposed Tariff Language.	●	11/15/07		The CAISO has posted all revised BPMs onto the CAISO website as of Nov 15th and has filed proposed Tariff Language. The following is a list of the BPMs that were revised and posted: Change Management, Compliance Monitoring, Congestion Revenue Rights, Credit Management, Definitions and Acronyms, Managing Full Network Model, Market Instruments, Market Operations, Metering, Outage Management, Reliability Requirements, Scheduling Coordinator Certification & Termination, Settlements and Billing.	
		BPM - 1.3 CAISO BPMs are sufficiently complete for the MRTU Implementation. *** Please note that BPMs marked "complete" are considered to be essentially complete; however, are subject to the outcome of the BPM Technical Conference, and any revisions required as a result of Testing or Market Simulation.	● B	3/31/08		Further details on each BPM can be found under "BPM Completion Status Report" at: http://www.caiso.com/17ba/17baa8bc1ce20.html	
		BPM for Candidate CRR Holder Registration	●			Complete	
		BPM for Congestion Revenue Rights	●			Complete, revised version posted Nov 15th	
		BPM for Compliance Monitoring	●			Complete, revised version posted Nov 15th	
		BPM for Change Management	●			Complete; See Readiness Criterion BPM 1.4 for status	
		BPM for Credit Management	●			Complete, revised version posted on September 12th	
		BPM for Definitions and Acronyms	●			Complete, revised BPM posted on September 21	
		BPM for Managing the Full Network Model	●			Complete, revised version posted on Nov 15th	
		BPM for Market Instruments	●			Complete, revised version posted on Nov 15th	
		BPM for Market Operations	●			Complete, revised version posted Nov 15th	
		BPM for Metering	●			Complete, revised version posted Nov 15th	
		BPM for Outage Management	●			Complete, revised version posted on Nov 15th	
		BPM for Reliability Requirements	●			Complete, revised version posted Nov 15th	
		BPM for Rules of Conduct Administration	●			Complete	
		BPM for Scheduling Coordinator Certification and Termination	●			Complete, revised version posted Aug 20th	

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		BPM for Settlements and Billing	●			Complete, Attachment E posted on Nov 12th. * Going forward, updates and changes to this BPM will be tracked on Criterion STL 1.1.1.	
		BPM - 1.4 CAISO establishes the BPM Change Management Process; communicates the process to stakeholders; and files the BPM Change Management Process with FERC. The process establishes the procedure that is used to update the BPMs after market launch.	B	8/3/07		<ul style="list-style-type: none"> - Revised BPM for Change Management Process was posted on June 26. - Information on the Change Management Process can be found at: http://caiso.com/17ba/17baa8bc1ce20.html - FERC Filing over Change Management Process occurred on August 3rd. - Process will go into effect at Go Live. <p>All updates to the BPM Change Management Process as a result of the FERC Technical Conference on Sept 27th have been posted onto the CAISO website as of Nov 15th.</p>	
CRR-1	CRR	CAISO will conduct a market simulation phase, called the Congestion Revenue Right (CRR) Dry Run, to provide market participants and CAISO with the opportunity to step through the process of allocating and auctioning CRRs in a manner that will be similar to the process that will be used to support MRTU implementation.		3/30/07	B		
		CRR - 1.1 CRR Participants meet the eligibility requirements to participate in the CRR Dry Run.	B	8/30/06			
		1. Participants complete CRR training.	●	6/29/06			
		2. Participants receive security digital certificates.	●	8/30/06			
		CRR - 1.2 CRR Participants provide CAISO with valid, annual CRR nominations for the CRR Dry Run.	B	8/30/06			
		CRR - 1.3 CAISO completes the annual and monthly CRR allocations for the CRR Dry Run.	B	2/15/07			
		1. New CRR Participants meet eligibility requirements.	●	9/30/06			
		2. CRR Participants submit CRR nominations to CAISO.	●	10/15/06			
		3. CAISO runs the CRR allocation markets and publishes results.	●	2/15/07		Annual results of the allocation market were published during 12/06. Monthly results from the allocation market were published on 1/16/07. This Criterion finished early.	
		CRR - 1.4 CAISO completes the annual and monthly CRR auctions for the CRR Dry Run.	B	2/15/07			
		1. New CRR Participants meet eligibility requirements.	●	9/30/06			
		2. CRR Participants submit CRR bids to CASIO.	●	10/15/06			
		3. CAISO runs CRR auction markets and publishes results.	●	2/15/07		Monthly results of the auction market were published on 1/16/07. Annual results of the auction were published on 1/26/07. This Criterion finished early.	

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		CRR - 1.5 CAISO collects the results of the CRR Dry Run, prepares an informational report, and submits it to FERC.	B	3/30/07		Informational Report over Dry Run can be found at: http://www.caiso.com/1bb4/1bb4f3562b4c0.pdf	
CRR - 2	CRR	CAISO will complete the integration testing of the CRR output services. The test results will pass the Quality Review Board review.		9/1/08	B	- All CRR Broadcast Services were successfully triggered to an SOA (Service Oriented Architecture) Bus. - CRR Release 1 successfully passed Quality Review Board FAT and SAT Test review. August 2008 Update: Testing for CRR broadcast services to OASIS is complete with 1 outstanding postponed defect regarding GMT timestamp. There is a workaround in place and the GMT timestamp code will be postponed until after the CRR Production Auction market in Nov 2008 Testing CRR broadcast services with SAMC is complete except for CC6798 which should be completed by September. September 2008 Update: Integration test of all CRR Broadcast services with SAMC are complete.	
CRR - 3	CRR	CAISO will complete the first annual process for allocation of 1-Year CRRs and LT CRRs and for auction of 1-Year CRRs, and first monthly allocation and auction of monthly CRRs.		TBD	P		
		CRR - 3.1 CRR participants meet the eligibility requirements to participate in the CRR production market.	B	10/1/07			
		1. CRR Participants receive security digital certificates if not already received from CRR Dry Run.	●	6/29/07		All certificates requested by the Participants have been received for allocation.	
		2. CRR System is populated with collateral data from the financial group.	●	12/1/07		The CRR System was populated with collateral data from the financial group on 12/6/07.	
		CRR - 3.2 The first production run of 1) the annual process for allocation of 1-Year CRRs and LT CRRs, and for auction of 1-Year CRRs; and 2) first monthly allocation and auction of monthly CRRs are complete.	P	1/27/09			
		1. Completion of Annual and Long Term Allocation Process	●	12/3/07		- Tier 1 market: 9/4 - 9/14 - complete - Tier 2 market: 10/5 - 10/9 - complete - Tier LT market: 10/29 - 10/31 - complete - Tier 3 market: 11/21 - 11/27 - complete	
		2. Completion of Annual Auction Process	●	12/18/07		- Annual Auction: 12/11 - 12/13 The Annual Auction Process completed on 12/20/07.	
		3. Start of Monthly Allocation Process	●	Exit PPS		February 2009 Update The Monthly CRR Allocation and Auction	

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		3.1 Complete and post Monthly Allocation results	○	Exit PPS		activities have begun. The schedule has been posted on the website at: http://www.caiso.com/2335/23359275430	
		4. Start of Monthly Auction Process	●	Exit PPS			
		4.1 Complete and post Monthly Auction results	○	Exit PPS			
CRR - 4	CRR	CAISO will make its compliance filing with the FERC's Long-Term Transmission Rights (LT FTR) Final Rule.		1/29/07	B	Filing can be viewed at: http://www.caiso.com/1845/1845dca750770.html under the name: "CAISO Filing to FERC on Long Term Transmission Rights - 29-Jan-2007"	
ENT - 1	Enterprise Systems	CAISO will verify that its enterprise systems meet availability requirements. This will be demonstrated by establishing Service Level Agreements (SLAs) for IT support, development, and implementation of monitoring tools and achieving availability requirements during the Pre-Production Simulation (PPS).		Exit PPS	P		
		ENT - 1.1 Service Level Agreement (SLA) documents are created and signed off by the MRTU IT Director.	B	Entry PPS		January 2009 Update SLAs completed and approved.	
		ENT - 1.2 Monitoring tools are built into each enterprise system and are used to produce performance and availability reports during PPS market simulation.	B	Entry PPS		December 2008 Update CAISO has developed and implemented monitoring tools for all enterprise systems in NFP. These tools were used in IMS U2 and will continue to be used through parallel operations and PPS.	
		ENT - 1.3 Each enterprise system meets its minimum availability requirement during the PPS market simulation.	P	Exit PPS		Minimum PPS availability cannot be confirmed until PPS phase. February 2009 Update All monitoring for this criterion is in place.	
ECA - 1	External Control Area	CAISO, market participants, and external control areas agree on the new interchange and e-tagging procedures, being developed as part of the Scheduling and Tagging Next Generation (STING) project, including the new Control Area Scheduler (CAS).		1/23/07	B		
		ECA - 1.1 100% of tags applicable to CAISO are linked by market reservation to Control Area Scheduler (CAS).	B	1/23/07		100% of the tags applicable to CAISO from the Participants are being linked through market reservation to CAS.	
		ECA - 1.2 Control Area Scheduler (CAS) is fully operational and in production.	B	1/23/07		Control Area Scheduler officially went live on Tuesday, 2/13/07 at 10:00pm.	
GO - 1	Grid Ops	CAISO grid operating procedures will be created or updated to reflect MRTU implementation. The new and revised grid operating procedures will be reviewed with market participants and external control areas.		1 Day Prior to Go-Live	B		

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		<p>GO - 1.1 CAISO Grid Operating Procedures and Emergency Procedures are reviewed. New procedures are created or existing procedures are revised for training purposes to reflect MRTU implementation.</p>		5/1/08		<p>Of 352 Operating Procedures: - 83 Operations Procedures have been identified as needing revisions for MRTU. - 47 minor Operating Procedures - 32 significant Operating Procedures will be created or withdrawn. - 4 major Operating Procedures critical for Operations Training.</p> <p>All Operating Procedures are complete: - 4 out of 4 Major Operating Procedures completed. - 32 out of 32 Significant Operating Procedures completed. - 47 out of 47 Minor Operating Procedures completed.</p>	
		<p>GO - 1.2 CAISO Grid Operating Procedures and Emergency Procedures are provided to Market Participants and External Control Areas.</p>		5/1/08		<p>The following are the 4 major operating procedures: - M-401 Day Ahead Market - M-402 Exceptional Dispatch - M-403 Real Time Market - S-326 Southern Cities</p> <p>April Update: All Major Operating Procedures are complete: M-401 Day-Ahead Market M-402 Exceptional Dispatch M-403 Real-Time Market</p>	
		<p>GO - 1.3 The revised CAISO Grid Operating Procedures and Emergency Procedures are posted on the CAISO website.</p>		1 Day Prior to Go-Live		<p>January 2009 Update All procedures have been reviewed, revised and updated.</p>	
INF-1	Infrastructure	CAISO will meet the MRTU system architecture requirements, including information monitoring processes and tools and availability and stability standards during market simulations.		Exit PPS			
		<p>INF - 1.1 Infrastructure monitoring tools produce logs of system performance and availability during market simulations.</p> <p>1. Weekly up-time reports reflect that system infrastructure is available for at least the time required during each market simulation.</p>		Exit PPS			
				Exit PPS		<p>December 2008 Update: ISO Monitor and reporting is active on New Production environment and will continue through Go-Live.</p>	
		<p>INF - 1.2 Production environment is available and stable for 7 consecutive days (24 hours a day), excluding approved outages (emergency only), during the market simulations.</p>		Exit PPS		<p>January 2009 Update The production environment has been in place and is being continuously monitored. The environment has been available 24/7 (excluding approved outages).</p>	

Integrated Market Simulation

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U2: 02/19/08- 01/04/09; PPS: 03/01/09

MRTU Readiness Criteria Dashboard

Readiness Criterion Identifier	Readiness Category	Readiness Criterion	Criterion Component Status	Target Due Date / Market Simulation Phase	Overall Category Status	Documentation and Comments	Issues and Mitigating Actions
		INF - 1.3 Archive capability is planned, tested, and accomplished in the MRTU infrastructure.	B	Exit PPS		January 2009 Update Archive capability is in place for the MRTU infrastructure.	
		INF - 1.4 Backup/Recovery and Failover/Fallback of MRTU infrastructure is planned, tested, and accomplished.	B	Exit PPS		February 2009 Update Multiple critical systems have performed Fallbacks and Failovers. This testing has also include recovery activities. Completion of all of these test occure by Feb 28, 2009.	
		1. Backup/Recovery of MRTU infrastructure is planned, tested and accomplished.	●	Exit PPS			
		2. Failover/Fallback of MRTU infrastructure is planned, tested and accomplished.	●	Exit PPS			
		INF- 1.5 The final production environment is configured for Go-Live.	P	Exit PPS		February 2009 Update The Production environment has been available to support Market Simulations and will be used in Parallel Operations and is required prior to entering PPS. As outlined in the Cutover plan, the cerain legacy systems still need to be integrated into the environment. This will be completed in March 2009 prior to exit PPS.	
		INF- 1.6 Release management processes (framework/structure) are in place prior to PPS market simulation around any changes to the code or production environment.	B	Entry PPS		October 2008: Release management process is in place.	
LMP-Testing-1	LMP Testing	CAISO will perform Location Marginal Pricing (LMP) testing. The purpose of LMP testing will be to ensure that the LMP and Ancillary Service Marginal Pricing (ASMP) calculations are accurate using data and results compiled from market simulation activities, analysts track testing, and, to the extent possible, LMP Study 4.		Entry PPS	B		
		LMP Testing - 1.1 LMP and ASMP Validation in Controlled Test Environment	B	7/31/08		LMP Testing 1.1.1 -1.1.3 combined comments	
		1. LMP for a generating resource, participating load, system resource, and non-participating demand are appropriately (i) equal to, (ii) above, or (iii) below the resources bid, depending on whether the resource schedule is constrained by specific conditions.	●	7/31/08		October 2008 Update: Testing of LMP and ASMP validation in the controlled test environment is complete. The final LECG report can be found on the following link: http://caiso.com/2067/2067ea8e50950.pdf	
		2. ASMP for a generating resource, participating load, and system resources are appropriately (i) equal to, (ii) above, or (iii) below the resources Ancillary Service (AS) bid, depending on whether the resource AS schedule is constrained by specific conditions.	●	7/31/08			
		3. Regional Ancillary Service Shadow Prices (RASSPs) are calculated correctly such that: Reg Up Price >= Spin Price >= N-Spin Price, and RASSPs are calculated correctly with AS Cascading activated.	●	7/31/08			
		LMP Testing - 1.2 LMP and ASMP Validation under Market Simulation Environment	B	Entry PPS		LMP Testing 1.2.1 -1.2.2 combined comments	

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		1. LMP for a generating resource, participating load, system resource, and non-participating demand are appropriately (i) equal to, (ii) above, or (iii) below the resources bid, depending on whether the resource schedule is constrained by specific conditions.	●	Entry PPS		<p>- Testing was accomplished with the start of IMS Release 2.</p> <p>- Daily Price Validation Processes for all markets has begun with IMS R3 and conclude prior to the start of PPS.</p> <p>- The goal of this effort is to accomplish comprehensive price validation for all markets within the price correction time horizon (8 days).</p> <p>August 2008 Update: CAISO is validating each IFM Market Simulation solution on a daily basis. The CAISO has begun including market validation status report information in the daily Market Simulation summary emails to participants in the market trials, and is discussing a weekly summary of these activities each Friday morning as a part of the Market Simulation daily briefing to participants in the market trials</p> <p>September 2008 Update: CAISO is validating each IFM Market Simulation solution on a daily basis. Validation of RT cases has also being performed on a daily basis. Currently this includes (a) examination of key indicators of anomalous conditions and results, from which detailed analysis is conducted to identify root causes.</p> <p>Remaining Steps While the readiness criteria stated herein is accomplished, CAISO continues to expand and enhance this process to include more automated validation analyses of real timemarkets, and increase the efficiency with which market results are evaluated</p>	
		2. ASMP for a generating resource, participating load, and system resources are appropriately (i) equal to, (ii) above, or (iii) below the resources AS bid, depending on whether the resource AS schedule is constrained by specific conditions.	●	Entry PPS			
LMP-PRD - 1	LMP Production	CAISO will develop and implement the Locational Marginal Pricing (LMP) validation tools, processes, and procedures necessary to support MRTU implementation.		11/1/08	B		

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		LMP Production - 1.1 The LMP tool is operational and 100% of processes and procedures are completed.	B	11/1/08		<p>August 2008 Update: Work continues on the SAS code, with frequent updates from LECC. IT and Market Ops have completed performance tests of the tool in the production environment and are analyzing the results. Work continues on the output viewer, and SAS consultants have been given requirements for the Kick Off controller.</p> <p>October 2008 Update: Significant progress has been made with the remaining work focused on the output viewer. It is anticipated that the tool will be completed by early November.</p> <p>November 7, 2008 Update: Work on the output viewer has been accomplished and the LMP Tool is now complete.</p>	
MKS - 1	Market Services	CAISO will prepare an assessment of the MRTU market systems' effectiveness when responding to instances where the demand bids exceed the supply bids and post on the CAISO website.		Exit Update 2	B	<p>October 2008 Update: This Readiness Criterion is reflected in Scenario 10 of the IMS Scenario Executions. This scenario ran for trade date 9/20/08 and the preliminary results are available for Market Participant review. http://www.caiso.com/204e/204e785f5d300.pdf.</p> <p>November 7, 2008 Update: Based on the observed market results, the objective of this shortage of supply scenario was achieved. The Final Report is posted on the CAISO website on the following link: http://www.caiso.com/2076/2076dd7b34a0.pdf</p>	

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MKS - 2	Market Services	CAISO will develop post implementation evaluation criteria, including MRTU performance and operational issues, collaboratively with stakeholders for inclusion in CAISO's post-implementation performance reports.		7/31/08	B	<p>Two Stakeholder meetings have been held to identify the type criteria that would be included on post implementation reports.</p> <p>The CAISO has developed a set of MRTU Market Performance Metrics to be used in the Post Implementation evaluation report. These metrics can be found on the CAISO website on the following link: http://www.caiso.com/179d/179ddbce22760.html. The CAISO is working on compiling the list of post-evaluation criteria and will post it onto the CAISO website.</p> <p>July 2008 Update: The CAISO is in the final stages of finalizing the list of reporting metrics for the Post Implementation quarterly report..</p> <p>Note: The target date was changed to reflect additional items to complete in the reporting metrics.</p> <p>September 2008 Update: The CAISO has established post implementation reporting metrics to be filed on a quarterly basis 30 days after the</p>	
MS - 1	Market Systems	CAISO will create support, monitoring, and availability requirements for the MRTU market systems, including the establishment of Build Documents, Run Books and application monitoring tools.		Exit PPS	P		
		MS - 1.1 Build Documents and Run Books are created and signed off.	B	Entry PPS	P	<p>January 2009 Update Build documents and Run books have been created and approved.</p>	
		MS - 1.2 Monitoring tools are integrated and functioning in each Market System and are used to produce performance and availability logs during the Pre-Production Simulation (PPS) market simulation phase.	B	Entry PPS		<p>Application monitoring in progress</p> <p>November 2008 Update: ISO Monitor is active on new Production environment, additional monitoring being added.</p>	
		1. The monitoring tool is integrated with the Settlement and Market Clearing (SaMC) system.	B	Entry PPS		Application monitoring in place.	
		2. The monitoring tool is integrated with the Client Management Repository (CMRI) system.	B	Entry PPS		Application monitoring in place.	
		3. The monitoring tool is integrated with the Scheduling Infrastructure Business Rules (SIBR) system.	B	Entry PPS		Application monitoring in place.	
		4. The monitoring tool is integrated with the Integrated Forward Market (IFM) system.	B	Entry PPS		Application monitoring in place.	
		5. The monitoring tool is integrated with the Real-Time Market (RTM) system.	B	Entry PPS		Application monitoring in place.	
		6. The monitoring tool is integrated with the Portal system.	B	Entry PPS		Application monitoring in place.	
		7. The monitoring tool is integrated with the Market Quality System (MQS) system.	B	Entry PPS	Application monitoring in place.		

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		MS - 1.3 Each Market System has met its minimum availability requirement during the PPS market simulation phase.	P	Exit PPS		February 2009 Update Hardware and monitoring tools deployed to measure availability during Market Simulation and will continue in PPS. This item is an exit PPS item, so these systems will be monitored throughout PPS.	
		1. The SaMC system meets minimum availability requirement.	P	Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		2. The CMRI system meets minimum availability requirement.	P	Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		3. The SIBR system meets minimum availability requirement.	P	Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		4. The IFM system meets minimum availability requirement.	P	Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		5. The RTM system meets minimum availability requirement.	P	Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		6. The Portal system meets minimum availability requirement.	P	Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		7. The MQS system meets minimum availability requirement.	P	Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
MM - Study - 1	Market Monitor Study	CAISO will complete the Final Competitive Path Assessment (CPA) after thorough review and input from stakeholders; allowing the resulting path designations to be posted to the CAISO website.		30 days prior to Market Launch	B	The first set of preliminary results were published on the CAISO website under the heading "MRTU Competitive Path Assessment White Paper": A second set of preliminary CPA results was published on 10/1/07. Both reports and all other CPA information can be found at: http://www.caiso.com/docs/2005/07/01/200507011120583480.html . Third set of preliminary CPA results were published on 12/19/07 under the heading: CPA for MRTU Release 3 of Preliminary Results. This report can be found at: http://www.caiso.com/docs/2005/07/01/200507011120583480.html . February 2009 Update: The study for the Final CPA report has been completed. The report is scheduled to be published by the first week of March.	

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MM - Study - 2	Market Monitor Study	The issue raised by LECG about a potential deficiency in the preferred Local Market Power Mitigation (Direct Mitigation) will be evaluated and will be determined not to be a significant concern.		12/31/06		There is no indication that the LECG concern was valid for the LMPM approach that we are taking, and therefore, is not a significant concern. Report on LMPM deficiency can be found at: http://www.caiso.com/docs/2004/10/01/2004100110503422982.html	
SIM - 1	Market Simulation	In advance of each of the market simulations, CAISO, with input from stakeholders, will establish entry and exit criteria. The entry and exit criteria will be posted on the CAISO website. The entry and exit criteria from each Market Simulation will be met.		Exit PPS			
		SIM - 1.1 The Rules Validation / Connectivity Simulation (RV/CS) phase entry and exit criteria are met.		Exit RV/CS		RV/CS Scorecard can be found at: http://www.caiso.com/18d2/18d2926739ba0.pdf	
		SIM - 1.2 The Enhanced Rules and Connectivity Inter – SC Trade (ERC-IST) simulation phase entry and exit criteria are met.		Exit ERC-IST		ERC/IST Scorecard can be found at: http://www.caiso.com/1bbe/1bbcd8903a0f0.pdf	
		SIM - 1.3 The Integrated Market Simulation (IMS) entry and exit Criteria are met.		Exit R2			
		SIM 1.3.1 Release 1 The Integrated Market Simulation (IMS) Release 1 (R1) entry and exit criteria are met.		Exit R1		R1 successfully exited on 5/18/07. R1 entry and exit criteria can be found in the "Market Simulation Criteria Tracker" at: http://www.caiso.com/186a/186acdf53cdf0.html The R1 Scorecards can be found at: http://www.caiso.com/1bb6/1bb674bb18c90.html	
		SIM 1.3.2 Release 2 The Integrated Market Simulation (IMS) Release 2 (R2) entry and exit criteria are met.		Exit R2		R2 concluded on 7/20/07. R2 entry and exit criteria can be found in the "Market Simulation Criteria Tracker" at: http://www.caiso.com/186a/186acdf53cdf0.html R2 Weekly Report Cards can be found at: http://www.caiso.com/1bb8/1bb8c03d28380.html	
		Sim 1.4 Release 3 IMS Release 3 Entry and Exit Criteria as identified in the Market Simulation Guide Book are complete with the exit of IMS Update 2.		Exit Update 2			
		SIM 1.4.1 Release 3 Integrated Market Simulation Release 3 begins.		Exit R3		- IMS Release began on 9/24/07. - IMS R3 URL Document, Charge Code, and other information can be found at: http://www.caiso.com/1bd7/1bd7ebbc72fc0.html IMS Release 3 concluded on 11/9/07.	

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		SIM 1.4.2 Update 1 Integrated Market Simulation Update 1 begins.	B	Exit Update 1	B	IMS Update 1 began on 11/13/07. -IMS Update 1 URL Document, Charge Code, and other information can be found at: http://caiso.com/1c2d/1c2d9ced4aa60.html	
		SIM 1.4.3 Update 2 Integrated Market Simulation Update 2 begins and concludes with all Exit criteria as identified in the Market Simulation Guide Book complete.	B	Exit Update 2		IMS Update 2 began on 02/19/08. -IMS Update 2 URL Document, Charge Code and other information can be found at : http://caiso.com/1c96/1c96acdd1d710.html	
		Sim – 1.5 The Pre-Production Simulation (PPS) entry and exit criteria are met.	P	Exit PPS		December 2008 Update: IMS U2 concluded. Discussion of the completion of IMS U2 can be found in the February 2009 Update The CAISO will enter PPS on the first week of March.	
MOD-1	Model	CAISO will complete all updates to the Full Network Model. (FNM)		10/31/08	B		
		MOD - 1.1 FNM updates are completed (except for simultaneous promotion of Markets and EMS to production) utilizing integrated databases or approved workarounds.	B	6/30/07	B	October Update: The FNM has been updated in the FIT environment and is scheduled to be included in the next phase of Market Simulation. All future model updates are planned to be promoted into the MRTU Market Simulation.	
		MOD - 1.2 FNM updates are completed (including simultaneous promotion of Markets and EMS to production) utilizing integrated databases or approved workarounds.	B	10/31/08		December 2008 Update: Full integration of the FNM model DB38 was successfully completed with no process issues.	
ORG - 1	Organizational Readiness	CAISO's organizational readiness tasks will be completed and the Core Business Units affirm their successful completion. Readiness tasks may include the following elements, as applicable: 1. Organizational Impact Assessment 2. Job Analysis and Design 3. Organizational Analysis and Design 4. Communication Plan 5. Knowledge Transfer Plan 6. Revised Job Descriptions 7. Revised Contingency Plan 8. Tools, Processes, and Procedures 9. Training		60 Days Prior to Market Launch	B	January 2009 Update: Core Business Units have completed their readiness tasks as identified in the criterion's elements.	

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ORG - 2	Organizational Readiness	CAISO's organizational readiness tasks will be completed and the Non-Core Business Units affirm their successful completion. Readiness tasks may include the following elements, as applicable: 1. Organizational Impact Assessment 2. Job Analysis and Design 3. Organizational Analysis and Design 4. Communication Plan 5. Knowledge Transfer Plan 6. Revised Job Descriptions 7. Revised Contingency Plan 8. Tools, Processes, and Procedures 9. Training		60 Days Prior to Market Launch	B	January 2009 Update: All MRTU tasks for Non-Core Business Units are completed, the final needed activity for the BU has been completed.	
ORG - 3	Organizational Readiness	CAISO will establish the tools and environments required to support the market monitoring, enforcement, and compliance functions.		60 Days Prior to Market Launch	P		
		<p>ORG - 3.1 All data identified by the Department of Market Monitoring (DMM) Unit as critical for market monitoring will be stored in an organized relational database, thoroughly documented, and will be made available to the Department of Market Monitoring Unit.</p>	P	60 Days Prior to Go-Live		<ul style="list-style-type: none"> Enterprise Data Repository (EDR): Project is near completion for critical (to DMM) six market applications, and further enhancements have been made by EDR Team. Issues still exist with representation of Master File data, DEB input data, and expanded transmission data. None of these are critical matters for go-live. Initial draft of Data Dictionary is available, but documentation is dated and incomplete, making this source of information of limited use. Need updates from vendors and assignment of data dictionary custodianship (definitions and data dictionary application) to individuals / business unit before Go-Live. <p>Most data availability issues have been either resolved or are being addressed through change requests and work-around. DMM is actively working with EDR and MRTU PMO to get remaining issues resolved prior to go live. At this time it does not appear that there are any</p>	
		<p>ORG - 3.2 A core set of monitoring tools (software, indices, and reports) will be completed and functional.</p>	B	60 Days Prior to Go-Live		<p>February 2009 Update: Monitoring tools have been created, tested, and in use. This item can be closed.</p>	

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		<p>ORG - 3.3</p> <p>A Market simulation tool (the MRTU Sandbox / DMM Tool) that is based on the actual CAISO market software will be developed and tested by the CAISO MRTU Team and made available to the Department of Market Monitoring (DMM) Unit three months prior to Go Live.</p>	P	90 Days Prior to Go-Live		<p>January 2009 Update:</p> <ul style="list-style-type: none"> • DMM Sandbox is on site and is being used by DMM. • Reliability issues are being addressed, along with software versioning and save-case access. • DMM is working closely with IT and MRTU PMO on issue resolution. Continued focus and resources will be devoted to assure the DMM tools are working properly and are adequate for go live. Weekly status is being reported and reviewed by CAISO Management on progress and resolution of items. 	
PRT - 1	Participant Readiness	CAISO will monitor the "readiness" of the market participants through a series of MRTU Readiness Assessments to assist in ensuring that at least 80% of the active CAISO market participants including those that meet significant CAISO demand requirements are "Ready" prior to market launch. The assessment criteria will include people, process, and technology areas of readiness.		30 Days Prior to Market Launch	B	<p>December 2008 Update:</p> <p>The CAISO is working closely with Market Participants with their readiness plans. Progress in settlement validation is occurring and parallel operations will provide additional opportunities to ready Market Participants' staff.</p>	
		<p>PRT - 1.1</p> <p>80% of the market participants including those that meet significant CAISO demand requirements complete the Initial Baseline Assessment.</p>	B	1/31/07		81% of Market Participants including those that meet significant CAISO demand completed their assessments.	
		<p>PRT - 1.2</p> <p>80% of the market participants including those that meet significant CAISO demand requirements complete the First Follow-Up Assessment.</p>	B	7/31/07		100% of Market Participants completed their assessments.	

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		PRT - 1.3 80% of the market participants including those that meet significant CAISO demand requirements achieve a "READY" score on the Final Assessment.	B	30 Days Prior to Market Launch		February 2009 Update 94 certified SCs received the Final Assessment; 75 assessments were returned (80%). The SCs that comprise the significant CAISO demand (90% of the Demand) all submitted their assessments and received a score of READY. 96% of the SCs that submitted their assessments received a score of READY. The 19 SCs that did not submit their assessments have been contacted multiple times and the CAISO will continue to pursue receiving their assessments; however, this criterion can be closed with the responses received to date.	
PRT - 2	Participant Readiness	CAISO will monitor and record overall issues during each Release (and update) of Integrated Market Simulation (IMS), resolve any issues that hinder meeting the pre-defined release objectives and all for Market Participant testing time.		Exit R3 Update 2	B		
		PRT - 2.1 Release 2 - Resolution of all high priority issues that hinder the pre-defined release objectives and allow for Market Participant testing time.	B	Exit R2		- Settlement files to-date have not met Market Participant expectations and requirements for testing. - All R2 in-scope activities are not yet available. - R2 Simulation concluded without simulation success from a product testing and business process point of view. - There were two High+ issues that prevented participants from meeting the objectives for Release 2. There were also two High+ issues with Market Test status. IMS R2 was concluded. The Market Simulation team and the PMO are currently discussing steps to resolve the open issues.	
		PRT - 2.2 Release 3 (includes Updates 1 & 2) - Resolution of Critical and Very High priority issues that hinder the pre-defined release 3 objectives and allow for Market Participant testing time.	B	Exit Update 2		All Critical and Very High issues are being resolved as they arise. A weekly Status and Issue report is posted on the CAISO website at : http://www.caiso.com/1bd7/1bd7ebbc72fc0.html#1c6011d9c6cd70 . December 2008 update: All issues that prevented Market Participants from participating in Market Simulation were address immediately. Based on the weekly participation report cards, a very high percentage of Scheduling Coordinators were actively testing in Market Simulation, therefore, no issue hindered participation in IMS U2.	
REG - 1	Regulatory	CAISO's MRTU regulatory requirements will be completed, including tariff updates and filings.		60 - 90 days prior to go-live	B		

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		REG - 1.1 CAISO completes tariff updates and other necessary filings such as additional non- substantive compliance or 205 filings (e.g. clean ups, deferred maintenance, merger of S&R tariff amendments into MRTU (e.g. Credit policy)) and files them with FERC.	B	60 - 90 days prior to go-live		January 2009 Update: As of January 16th all known non-substantive filings have been made.	
		REG - 1.2 BPM updates are consistent with MRTU tariff and applicable FERC orders.	B	60 - 90 days prior to go-live		Revised BPMs were posted on November 15 consistent with FERC orders and MRTU Tariff on file. Additional proposed tariff language were also filed on November 15. The CAISO has satisfied BPM-related FERC directives.	
		REG - 1.3 All substantive compliance filings and substantive 205 filings are filed with FERC.	B	180 Days Prior to Market Launch		On 8/3/07, all compliance items that required filing no later than 180 days prior to Go Live from the 9/21, 4/20, and 6/25 FERC Orders, were submitted to FERC. -The initial scope of this criterion was satisfied on 8/3/07. An extension on two filings (LAP Clearing, and RA Backstop) in scope for this criterion will be tracked on criterion REG - 1.1.	
SE - 1	State Estimator	The purpose of the State Estimator (SE) criteria is to provide a measurement to evaluate the stability of the SE system and solution for MRTU. This category will monitor the State Estimator performance, voltage accuracy, and difference from telemetered flows on tie lines and branches that are within a predefined criteria: 1. SE solution must be achieved for 97% of five minute periods within a 30 day period. 2. SE voltage must be within 2% of metered voltage on 50 critical buses. 3. SE MW flow must be within 50MW or 5% of telemetered flow on 10 tie lines to outside CAISO. 4. SE flows on transmission lines and transformers must be within 10% of telemetered flows on all other branches within the CAISO footprint.		6/1/07	B		
		SE - 1.1 Real-Time Performance Criteria – For thirty (30) consecutive days a Valid State Estimator solution is achieved for ninety-seven percent (97%) of the five (5) minute periods within that thirty (30) day period. There are no more than three (3) consecutive five (5) minute periods without a valid solution (except when there is a planned system software migration as required by the Energy Markets project or when ICCP data is unavailable due to remote CA ICCP node errors). Valid solution are defined as one converged solution in a 5 minutes period using converge tolerance of 10 MW/ MVAR and maximum 'Zero-Injection' bus mismatch of 25 MW/MVAR inside the State Estimator solution within the California ISO Market footprint.	B	6/1/07		Criteria is complete	

Integrated Market Simulation

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R3: 9/24/07 - 11/09/07; U1: 11/13/07 -12/21/07;
U2: 02/19/08- 01/04/09; PPS: 03/01/09

MRTU Readiness Criteria Dashboard

Readiness Criterion Identifier	Readiness Category	Readiness Criterion	Criterion Component Status	Target Due Date / Market Simulation Phase	Overall Category Status	Documentation and Comments	Issues and Mitigating Actions
		SE - 1.2 On fifty (50) buses where voltage is deemed critical, the solved State Estimator voltage is within two percent (2.0%) +/- accuracy of the metered voltage, provided that the metered voltage is measured to within the notified accuracy. The fifty (50) critical buses are defined by the California ISO with Transmission Owner input and include at least one bus in each control area that is inside the observable California ISO market footprint. All buses (elements) are inside the observable California ISO Market model.	B	6/1/07		Criteria is complete	
		SE - 1.3 On ten (10) tie lines to outside of the California ISO System, the absolute difference between the telemetered flow and the State Estimator MW flow is within fifty (50) MW or five percent (5%) for lines 100kv and above, of the base rating. The ten (10) tie lines are defined by California ISO, with Stakeholder input. All tie lines (elements) are inside the observable California ISO Market model.	B	6/1/07		Criteria is complete	
		SE - 1.4 On all other branches (>100kV) within the California ISO footprint, the absolute difference between the telemetered flows and the State Estimator flows on transmission lines and transformers are within ten percent (10%) of the base rating. All other branches (elements) are inside the observable California ISO Market model.	B	6/1/07		Criteria is complete	
STL- 1	Settlements	CAISO will complete a Settlement and Market Clearing (SaMC) audit. The purpose of the audit will be to ensure that the SaMC software performs as defined in the CAISO MRTU Tariff.		1 Day Prior to Market Launch	P		
		STL - 1.1 CAISO completes the following activities to ensure consistency:	B	Entry PPS			
		1. Validation that the BPM for Settlements & Billing is consistent with the requirements that are identified in the CAISO MRTU Tariff.	●	Entry PPS		<p>October 2008 Update: The Settlements BPM is consistent with the requirements that are identified in the CAISO MRTU Tariff.</p> <p>The Settlements BPM and its attachments can be found on the following link: http://www.caiso.com/17e9/17e97b196bd30.html</p> <p>*Please note that the Settlements BPM is a living document and updates will be made to it as needed.</p>	
		2. Validation of the consistency between the Settlement BPM and the SaMC design documents.	●	Entry PPS		<p>October 2008 Update: The Settlements BPM is consistent with the SaMC design documents.</p> <p>*Please note that the Settlements BPM is a living document and updates will be made to it as needed.</p>	

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		STL - 1.2 An audit by an independent firm that validates the consistency of the SaMC software with the CAISO tariff is completed per the tariff timeline.	P	1 Day Prior to Market Launch		November 2008 Update: The audit is scheduled to be completed by early December 2008.	
STL- 2	Settlements	CAISO will test and implement its final settlement charge code configuration. The final configuration must include required changes from market simulation activities, the Grid Management Charge (GMC), and any changes arising from the 9/21/06, 4/20/07, 5/8/08, 6/25/07, and 7/6/07 FERC Orders.		Entry PPS	P	December 2008 Update: The CAISO continues to work with Market Participants with settlement charge code validations. The "Daily Charge Code Status" is posted on the website at: http://www.caiso.com/1c2d/1c2d9ced4aa60.html#1caacdf53ca0 Market Participants have reported that they are able validating charge codes and should be ready by go-live. January 2009 Update The ISO continues to run the settlement	
STL- 3	Settlements	CAISO will publish accurate and complete settlement statements and invoices during Update 2 of the Integrated Market Simulation phase. The published statements and invoices will be consistent with market participants activities during Update 2 of the Integrated Market Simulation phase.		Entry PPS	P	December 2008 Update: The CAISO continues to work with Market Participants with settlement charge code validations. The "Daily Charge Code Status" is posted on the website at: http://www.caiso.com/1c2d/1c2d9ced4aa60.html#1caacdf53ca0 Market Participants have reported that they are able validating charge codes and should be ready by go-live. Mini-monthly statements have been published to help in monthly validations. January 2009 Update The ISO continues to run the settlement system and calculate charge codes and settlement statements.	
TECH - 1	Technology	The Technical Operational Readiness Testing (ORT) exit criteria will be satisfied and approved by the CAISO Business Owners and the Director of MRTU IT. ORT exit criteria will include: 1. Successful completion of high availability testing. 2. Fault tolerance and failover/fallback testing. 3. Load and Performance Testing.		Entry PPS	P		
TST - 1	Testing	Performance Testing criteria for the IMS Releases 1-2 and Release 3 (including Updates 1 and 2) of Market Simulation will be met as defined in the Performance Test approach document.		Entry Update 2	B		
		TST - 1.1 Performance Testing entry and exit criteria are met for Release 1 of the Integrated Market Simulation.	B	Entry R1		R1 Performance testing is completed and has passed QRB review.	

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MRTU Readiness Criteria Dashboard

Readiness Criterion Identifier	Readiness Category	Readiness Criterion	Criterion Component Status	Target Due Date / Market Simulation Phase	Overall Category Status	Documentation and Comments	Issues and Mitigating Actions
		TST - 1.2 Performance Testing entry and exit criteria are met for Release 2 of the Integrated Market Simulation.	B	Entry R2		R2 Performance testing is completed and has passed QRB review.	
		TST - 1.3 Performance Testing entry and exit criteria are met for Release 3 of the Integrated Market Simulation.	B	Entry R3		R3 Performance testing is completed and has passed QRB review.	
		TST - 1.4 Performance Testing entry and exit criteria are met for Update 1 of Market Simulation.	B	Entry Update 1		The CAISO has performed Performance testing needed to enter into IMS Update 1. As a result, this criterion is marked as 'Complete'	
		TST - 1.5 Performance Testing entry and exit criteria are met for Update 2 of Market Simulation.	B	Entry Update 2		Update 2 Performance testing is completed and has passed QRB review. November 7, 2008 Update: Due to recent systems performance in IMS U2, Performance Testing is in progress to resolve current issues. November 30, 2008 Update: The CAISO continues to monitor systems performance and tests will be conducted as necessary. However, for the purposes of this Readiness Criteria, Performance testing has passed QRB review prior to the entry into IMS Update 2, therefore, this criterion is considered complete.	
TST - 2	Testing	Integration Testing criteria for the IMS Releases 1-2 and Release 3 (including Updates 1 and 2) of Market Simulation will be met as defined in the Performance Test approach document.		Entry Update 2	B		
		TST - 2.1 Integration Testing entry and exit criteria are met for Release 1 of the Integrated Market Simulation. * This is integration testing to get into Market Simulation.	B	Entry R1		R1 Integration testing is completed and has passed QRB review.	
		TST - 2.2 Integration Testing entry and exit criteria are met for Release 2 of the Integrated Market Simulation. * This is integration testing to get into Market Simulation.	B	Entry R2		R2 Integration testing is completed and has passed QRB review.	
		TST - 2.3 Integration Testing entry and exit criteria are met for Release 3 of the Integrated Market Simulation. * This is integration testing to get into Market Simulation.	B	Entry R3		R3 Integration testing is completed and has passed QRB review.	
		TST - 2.4 Integration Testing entry and exit criteria are met for Update 1 of Market Simulation. * This is integration testing to get into Market Simulation.	B	Entry Update 1		Update 1 Integration Testing is completed and has passed QRB review.	

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		TST - 2.5 Integration Testing criteria are met for Update 2 of Market Simulation.	B	Entry Update 2		November 2008 Update: Core integration testing has been completed for IMS Update 2; therefore, this criterion is considered complete. However, internally, additional integration testing may be performed when needed to support system patches that were identified during IMS Update 2. This activity is maintained through the change management process.	
BUS- BA - 1		All MRTU systems will meet the business requirements and pass the Business Unit review. Acceptable manual workarounds will be identified for systems that do not satisfy the required business functions. <ol style="list-style-type: none"> 1. The Settlement and Market Clearing (SaMC) system will pass Business Unit review. 2. The Scheduling Infrastructure Business Rules (SIBR) system will pass Business Unit review. 3. The Integrated Forward Market (IFM) system will pass Business Unit review. 4. The Real-Time Market (RTM) system will pass Business Unit review. 5. The Operational Meter Analysis and Reporting (OMAR) system will pass Business Unit review. 6. The Master File will pass Business Unit review. 7. The Open Access Sametime Information System (OASIS) system will pass Business Unit review. 8. The Participant Intermittent Resource Program (PIRP) system will pass Business Unit review. 9. The Automated Dispatch System (ADS) system will pass Business Unit review. 10. The Reference Level Calculator (RLC) system will pass Business Unit review. 11. The Existing Transmission Contract Coordination (ETCC) system will pass Business Unit review. 12. The Compliance Automation Production System (CAPS) will pass Business Unit review. 13. The Scheduling and Logging in California (SLIC) system will pass Business Unit Review. 14. The Market Quality System (MQS) system will pass Business Unit Review. 15. The Control Area Scheduling (CAS) system will pass Business Unit Review. 16. The Automated Load Forecast System (ALFS) will pass Business Unit Review. 17. The RMR Automated Validation Engine (RAVE) will pass Business Unit Review. 18. The Full Network Model (FNM) will pass Business Unit Review. 19. The PTR will pass Business Unit Review. 20. The Energy Management System (EMS) will pass Business Unit Review. 21. The Market Definition Service (MDS) system will pass Business Unit Review. 22. The Congestion Revenue Rights (CRR) system will pass Business Unit Review. 		60 days prior to go - live	B	November 2008 Update: All application transition sign-offs have been completed. Acceptable manual workarounds have been identified for systems that do not satisfy the required business functions. However, as further testing of the applications continue, additional manual workarounds will be developed if needed.	
BUS- BA - 2	Business Approval Business Area	CAISO will submit to FEREC its readiness certification based upon the following information: <ol style="list-style-type: none"> 1. Review of all readiness criteria 2. All Market Participant input through the assessment process 3. Resolution of critical high issues 4. Completion of cutover and reversion plans 5. Completion of contingency plans 6. Completion of cutover walkthrough 7. 60 Day Plan 		60 days prior to go - live	B	The readiness certification was filed on January xx, 2009.	

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Attachment 8.2

**MRTU *Go-Live*
Rapid Response
Incident Management Process**

Rapid Response Incident Management Process (DRAFT)

