



California Independent
System Operator Corporation

March 16, 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 Mid-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

Operator Corporation

151 Blue Ravine Road

Folsom, CA 95630

Attorneys for the California Independent
System Operator Corporation

March 31 with an initial Trading Day of April 1. Therefore, the CAISO believes this will be the last MRTU report it will file prior to MRTU go live. After MRTU go live, the CAISO will be fulfilling its reporting requirements as required by the MRTU Tariff and related Commission-orders. The CAISO will also inform the Commission and market participants should its current course towards MRTU go live be derailed for any reason.

Respectfully submitted,

/s/ Sidney Mannheim Davies

Sidney Mannheim Davies

Anna A. McKenna

Counsel for the California Independent
System Operator Corporation

Dated: March 16, 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 16th day of March 2009.

Is/ Anna Pascuzzo
Anna Pascuzzo



Mid-March 2009

Readiness Report for MRTU

Market Redesign & Technology Upgrade

Federal Energy Regulatory Commission

March 16, 2009

1. Executive Summary

The California Independent System Operator Corporation (ISO) provides this status report to inform the Federal Energy Regulatory Commission (FERC) that the organization and its market participants are on track for implementation of the Market Redesign & Technology Upgrade (MRTU) program on March 31, 2009 (for an initial trade date of April 1).

The preparation effort for this important program launch has been thorough and extensive. The ISO in partnership with its market participants tested new systems, resolved thousands of issues, audited and confirmed system operations and put in place detailed and systematic cutover plans. Given this extraordinary preparation effort, documented in multiple reports and filings to the Commission, ISO Management is confident the organization, market participants and the stakeholder community are ready for a successful MRTU launch. This is not to say that MRTU operations are perfect -- the systems are not faultless and a small number of variances remain open. However, the ISO is at a point where resolution of the remaining variances does not present an obstacle to program launch. The ISO further commits that it will continue to work vigorously in the days before *go-live* and after to resolve issues in a timely and effective manner. Recognizing the continued importance of open communication with both participants and the Commission, the ISO will continue to provide regular opportunities for the exchange of information during twice weekly participant meetings and by responding to individual questions and concerns.

With the Commission's acceptance of the tools the ISO requested to ensure an orderly MRTU transition; the authority to revert to the currently effective tariff, if necessary; the market monitoring and mitigation, price cap and floor, and exceptional dispatch procedures; and its newly developed *Go-Live* Support Plan with the Rapid Response Incident Management Process, the ISO is ready to launch MRTU consistent with the tariff accepted by the Commission. Should any inconsistencies with the MRTU tariff arise, the ISO will act expeditiously to inform participants and the Commission and remedy the situation.

This report summarizes the readiness status of the same external and internal preparations discussed in previous months and the ISO is pleased to report that all of these readiness areas are on track for the March 31 MRTU *go-live*.

2. Current State of Readiness

2.1. Quality of Price Solution

The ISO believes there are no material issues affecting quality of solution to impede MRTU launch on March 31, 2009. MRTU systems continue to produce price solutions that are accurate and explainable, given the inputs. While some anomalous pricing results continue, they are caused by the same simulation limitations outlined in previous status reports and internal analysis confirms that the market prices produced by MRTU systems are appropriate. The ISO will continue to

monitor MRTU prices and take appropriate actions as necessary up to and following program launch.

A new validation process is designed to provide increased confidence in the overall quality of MRTU market outcomes. The primary objectives are to: validate the accuracy of the Full Network Model, confirm that outage topology is correctly depicted in the model, identify and validate unit commitments, and evaluate the potential need for real-time mitigation including exceptional dispatches. This daily validation process involves two pre-runs of the day-ahead market – a full market run using available bids against forecast and outage schedules and a partial run, of Market Power Mitigation (MPM) only, using available bids against forecast and outage schedules. Grid and market operations staff will review results of these runs to determine how to best optimize the expected market solutions. This process is described in detail within the Market Operations Business Practice Manual (BPM).

In recent weeks, the ISO conducted several participant meetings to clarify the new price blocking and validation process now in place for MRTU. This relatively new process, implemented to help ensure the validity and correctness of market outcomes, includes three components: price corrections, data fill for missed market intervals and price cap enforcement.

The ISO also responded to numerous participant inquiries regarding system constraints, including contingency runs, intertie, and nomograms and how they may contribute to prices observed in market simulation. In addition, the ISO will post additional details on the subject of constraint enforcement before *go-live*.

As of the date of this report, price convergence between the MRTU markets is good and the MPM process is working as intended, indicating that the new ISO energy markets are ready for implementation. The ISO continues to engage with participants to answer pricing and quality solution questions, with the goal of full transparency leading up to *go-live* and thereafter.

2.2. Settlements

The ISO is confident MRTU settlements systems are stable, materially correct and ready for MRTU production. This will be further confirmed by a third party audit of the Settlements and Market Clearing (SaMC) system, scheduled for release March 31, 2009.

The ISO continues to produce settlement statements and invoices that are substantially correct, given the simulation inputs and impacts discussed in previous reports. Low participant levels and other simulation-related issues continue to affect settlements statements. The lack of production quality meter data is particularly problematic and drives very high charges for neutrality and unaccounted for energy.

The last trade date for MRTU settlements statements is March 12, 2009 and the final mini-monthly statement for March 1-12 will be published on March 19. The ISO

continues to work with participants to help them understand their market simulation settlement statements and resolve new issues that arise. In addition, a specialized internal team is assembled to monitor MRTU liabilities as they accrue post *go-live* and will work with participants whenever potential liabilities could exceed reasonable expectations.

Consistent with the Commission Order regarding MRTU Readiness Certification, the ISO will make available additional details regarding the monitoring process the ISO will employ to identify and address situations where participants may incur liabilities at an excessive rate. This proactive monitoring process is on the agenda of the monthly Implementation Workshop for participants scheduled for March 18.

2.3 Parallel Operation Simulation & Pre-Production

MRTU system testing since the first of March was dedicated to pre-production in preparation for system cutover. During this time MRTU simulation mirrors daily operations currently in ISO production, utilizing actual real-time data and telemetry as well as production forecast, load and outage information. Participant testing parallels the current production environment with the parallel submission of bids and schedules into production operations and MRTU. Pre-production also provides an important opportunity for the ISO and participants to refine processes and procedures in preparation for *go-live*.

On February 24th, the ISO facilitated a meeting regarding Integrated Balancing Area Authority (IBAA) policies and processes. In response to participant requests, the ISO will provide additional training, along with time for questions/answers, this month prior to *go-live*.

In recent weeks, Local Market Power Mitigation (LMPM) is solving consistently and the incidence of failure during Parallel Operations is significantly reduced. Specifically for March 1-10, only three LMPM failures occurred in the HASP, which equates to a 1.25 percent failure rate. This is a significant improvement over previously reported failure rates of 5 percent. The ISO Department of Market Monitoring (DMM) recognizes that LMPM failures may occur even after *go-live* and the tariff and BPMs provide lengthy descriptions of the ISO actions to be taken to address such occurrences, including price validation and correction procedures.

The ISO will keep monitoring system stability, a critical component of *go-live* confidence that continues to be adversely affected at times by simulation conditions. Recent production transitions for participants' certificate access and read-only ability were complicated by a large volume of requests and stringent system security requirements. Participant's system availability was impacted during these transitions, however the situations were rectified and participant access was restored. The ISO continues to process new requests for production access to MRTU systems.

The ISO continues to facilitate open dialogue about system issues during participant teleconferences held three times a week. Participants are understanding of and patient

with persistent simulation-related challenges surrounding system operations. These open and frank discussions will carry on as the ISO strives to build confidence in MRTU systems.

As of the date of this report, the ISO completed fall-back and fall-forward testing and operations tests that confirm cutover abilities. MRTU systems are tested and ready for a successful implementation on March 31.

2.4. Grid Operations Readiness

Grid Operations staff is trained and equipped with the systems and tools needed to manage the California ISO grid reliably and efficiently. During the week of March 9th, the sixth and final Grid Operations crew completed the established training curriculum that includes a week's worth of system practice and scenario execution. Concurrently, ISO operators completed an update of all operating processes and procedures and developed several new ones for managing the grid. All operations processes and procedures are now reflective of the new MRTU operating paradigm and compliant with regulatory standards. Additional system development will be completed before MRTU launch to reduce operators' manual efforts and automate final processes as much as possible.

ISO operators also continue to manage and run the MRTU markets on a daily basis for pre-production testing with participants. In these last two weeks prior to MRTU *go-live*, grid operator 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

The DMM simulation environment is now largely coincident with MRTU *go-live* systems and the stability of system performance is significantly improved. In the past week, automated runs to replicate and scenario test Hour-Ahead Scheduling Process (HASP) runs from the production environment have a 100 percent success rate. Similar automated runs for the Integrated Forward Market (IFM) have a success rate of more than 80 percent. The MRTU project team is working closely with DMM to improve the performance rate for the IFM runs.

It is important to note that DMM does not require the simulation environment to perform perfectly (i.e., zero failures) and several manual workarounds are in place to address periodic market run failures. Assuming that performance of the simulation environment continues at its current level or better, DMM considers the simulation environment to be ready for MRTU *go-live*. This is the final system required by DMM and the team is now equipped with the tools and systems needed to effectively monitor the MRTU markets.

3. Cutover & Reversion Plan and MRTU *Go-Live* Plan

The comprehensive Cutover and Reversion Plan and the systematic MRTU *Go-Live* Support Plan described in the March 6th report are complete and ready for implementation. Together, these thorough plans will coordinate an efficient and successful launch process and period of initial operations for the new MRTU market structure.

In the last two weeks, the ISO has begun streaming production outages, initiated system data purges and conducted final performance testing of critical systems in preparation for the MRTU cutover. The MRTU Cutover and Reversion Plan¹ is final and available on the ISO website for reference. In addition to transition activities, the plan describes the reversion process in the unlikely event that operations warrant a return to pre-MRTU systems.

During the last two weeks, in conjunction with the *Go-Live* Support Plan, the ISO conducted two comprehensive staff exercises to practice internal processes for issue identification, resolution and communication. Practice scenarios for the launch and reversion process ensure management and staff is prepared for possible contingencies.

The *Go-Live* Support Plan is now complete and ready for execution. In addition a MRTU *Go-Live* Communication Guidebook for Market Participants² is available to clearly identify points of access and set communication expectations for this important launch process.

4. Remaining Activities & Essential Milestones

The primary remaining activities and milestones, and the anticipated time frame³ 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; Final statement to be released March 19.
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

¹ The final MRTU Cutover & Reversion Plan is available on the ISO website at: <http://www.aiso.com/200c/200c82b849e30.pdf>

² The MRTU *Go-Live* Communication Guidebook for Participants is available on the ISO website at: <http://www.aiso.com/20ad/20adba2452b30.html> under the heading Documentation.

³ 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.	Complete
	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.

5. 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 the time of this report, the ISO has successfully addressed all of these issues.

Further, the ISO notes that the issues represented here are those considered to have the greatest potential impact to MRTU *go-live*. The ISO continues to engage with participants regarding the resolution of other issues. The “Known Issues” report is updated on a weekly basis⁴ and is posted to the ISO web site.

⁴ Weekly updates to the “MRTU Known Issues” are available on the ISO web site at: <http://www.caiso.com/20ad/20adba2452b30.html> under the heading Reports

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. <i>See note below.</i>
7	Resource-specific prices are inconsistent with the associated Pricing Node or Aggregated Pricing Node prices.		Resolved The original issue was resolved with a software fix. Subsequently, the ISO found an issue with the consistency between point of delivery and physical location resource prices. This secondary issue was addressed on 3/12.
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

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 confirmed and associated parameters are being adjusted.
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.
Two new issues (14 & 15) were added in response to participant requests during the week of Feb 9.

New issue: In its March 5 Status Report, the ISO acknowledged a recent concern raised by some participants about a time lag experienced with system recognition of outage schedules and derates. This situation continues to be monitored and mitigated to the degree possible.

NOTE re: #6: The final software variance, 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. 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.

6. 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, parameter tuning tariff amendments to the ISO and market participants, the ISO’s compliance filing to the Commission’s IBAA order, the procedures for addressing Market Disruptions, 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.

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 ISO 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.

The ISO also notes that pursuant to a directive in the Commission's December 4, 2008 order,⁵ 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.

7. Attachment

7.1. MRTU Readiness Criteria Dashboard, dated March 13, 2009.

⁵ *California Independent System Operator Corp.*, 125 FERC ¶ 61,262, at P 119 (2008).

Attachment 7.1

MRTU Readiness Criteria Dashboard



MRTU Readiness Criteria Dashboard

March 13, 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

March 13, 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/2335/2335927543060.pdf March 13, 2009 Update Monthly auction and allocations are processing for April, should be completed around 3/26.	
		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 requirements during the Pre-Production Simulation (PPS).		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. March 13, 2009 Update Monitoring continues throughout PPS.	
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. March 13, 2009 Update The cutover plan is being implemented and on target for go live.	
MS-1	Market Systems	MS - 1.3 Each Market System has met its minimum availability requirement during the PPS market simulation phase.	P	Exit PPS		February 2009 Update The CAISO will enter PPS on the first week of March. March 13, 2009 Update Monitoring continues throughout PPS.	
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	P		

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

March 13, 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
		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. March 13, 2009 Update On track for go live.	
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		
		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	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 critical data issues that won't be resolved prior to go-live.</p>	

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

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 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. <p>March 13, 2009 Update DMM is on track to be ready for go live</p>	
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> <p>March 13, 2009 Update The audit is on track for completion prior to go live</p>	

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






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, 5/8/08, 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#1caacdff53ca0 Market Participants have reported that they are able validating charge codes and should be ready by go-live.</p> <p>January 2009 Update The ISO continues to run the settlement system and calculate charge codes and settlement statements.</p> <p>March 13, 2009 Update The last trade day for settlement calculation was March 12, 2009</p>	
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#1caacdff53ca0 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.</p> <p>January 2009 Update The ISO continues to run the settlement system and calculate charge codes and settlement statements.</p> <p>March 13, 2009 Update The last trade day for settlement calculation was March 12, 2009</p>	
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>March 13, 2009 Update On track for go live.</p>	

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

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>	

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

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.	

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

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 - 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.	
		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. 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 Sameday 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.	

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

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
		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	

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

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 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		- 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. 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.	
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.	

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

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 - 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	

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

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
		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/2335/2335927543060.pdf March 13, 2009 Update Monthly auction and allocations are processing for April, should be completed around 3/26.	
		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. 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. Minimum PPS availability cannot be confirmed until PPS phase. February 2009 Update All monitoring for this criterion is in place. March 13, 2009 Update Monitoring continues throughout PPS.	
		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			
		ENT - 1.3 Each enterprise system meets its minimum availability requirement during the PPS market simulation.	P	Exit PPS			
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.	

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

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
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		
		<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>	B	5/1/08	B	<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>	B	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>	B	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		
		<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>	B	Exit PPS	P		
			B	Exit PPS		<p>December 2008 Update: ISO Monitor and reporting is active on New Production environment and will continue through Go-Live.</p>	

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

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 - 1.2 Production environment is available and stable for 7 consecutive days (24 hours a day), excluding approved outages (emergency only), during the market simulations.	B	Exit PPS		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).	
		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 Failbacks and Failovers. This testing has also include recovery activities. Completion of all of these test occurred by Feb 28, 2009.	
		1. Backup/Recovery of MRTU infrastructure is planned, tested and accomplished.	B	Exit PPS			
		2. Failover/Fallback of MRTU infrastructure is planned, tested and accomplished.	B	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 certain legacy systems still need to be integrated into the environment. This will be completed in March 2009 prior to exit PPS. March 13, 2009 Update The cutover plan is being implemented and on target for go live.	
		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.	B	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.	B	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.	B	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	

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

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
		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		

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

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
		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>	

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

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
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		Application monitoring in progress	
		1. The monitoring tool is integrated with the Settlement and Market Clearing (SaMC) system.	B	Entry PPS		Application monitoring in progress	
		2. The monitoring tool is integrated with the Client Management Repository (CMRI) system.	B	Entry PPS		Application monitoring in progress	
		3. The monitoring tool is integrated with the Scheduling Infrastructure Business Rules (SIBR) system.	B	Entry PPS		Application monitoring in progress	
		4. The monitoring tool is integrated with the Integrated Forward Market (IFM) system.	B	Entry PPS		Application monitoring in progress	
		5. The monitoring tool is integrated with the Real-Time Market (RTM) system.	B	Entry PPS		Application monitoring in progress	
		6. The monitoring tool is integrated with the Portal system.	B	Entry PPS		Application monitoring in progress	
		7. The monitoring tool is integrated with the Market Quality System (MQS) system.	B	Entry PPS	Application monitoring in progress		

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











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
		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. March 13, 2009 Update Monitoring continues throughout PPS.	
		1. The SaMC system meets minimum availability requirement.		Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		2. The CMRI system meets minimum availability requirement.		Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		3. The SIBR system meets minimum availability requirement.		Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		4. The IFM system meets minimum availability requirement.		Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		5. The RTM system meets minimum availability requirement.		Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		6. The Portal system meets minimum availability requirement.		Exit PPS		Hardware and monitoring tools deployed to measure availability during PPS.	
		7. The MQS system meets minimum availability requirement.		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.	

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**

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
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.	

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

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
		SIM 1.4.2 Update 1 Integrated Market Simulation Update 1 begins.	B	Exit Update 1		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 December 2008 Update: IMS U2 concluded. Discussion of the completion of IMS U2 can be found in the	
		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. March 13, 2009 Update On track for go live.	
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		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.	

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

March 13, 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
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 critical data issues that won't be resolved prior to go-live.</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>	

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

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 to Go Live.</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. <p>March 13, 2009 Update DMM is on track to be ready for go live</p>	
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		<p>December 2008 Update: 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 <u>Market Participants' staff</u>.</p>	
		PRT - 1.1 80% of the market participants including those that meet significant CAISO demand requirements complete the Initial Baseline Assessment.		1/31/07		81% of Market Participants including those that meet significant CAISO demand completed their assessments.	
		PRT - 1.2 80% of the market participants including those that meet significant CAISO demand requirements complete the First Follow-Up Assessment.		7/31/07		100% of Market Participants completed their assessments.	

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

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
		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		

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










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
		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

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

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.		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.		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.		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			
		STL - 1.1 CAISO completes the following activities to ensure consistency:		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>	

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

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 - 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. March 13, 2009 Update The audit is on track for completion prior to go live	
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#1caacdff53ca0 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 system and calculate charge codes and settlement statements. March 13, 2009 Update The last trade day for settlement calculation was March 12, 2009	
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#1caacdff53ca0 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. March 13, 2009 Update The last trade day for settlement calculation was March 12, 2009	
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	March 13, 2009 Update On track for go live.	
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		

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

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 - 1.1 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.	
		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.	

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

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
BUS- BA - 2	Business Approval Business Area	CAISO will submit to FERC its readiness certification based upon the following information: 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.	

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