

Memorandum

To: ISO Board of Governors
From: Steve Berberich, Vice President, Corporate Services
Deborah Le Vine, Director of Market Services and MRTU Program Manager
Date: July 7, 2008
Re: **Assessment of Progress Towards Fall 2008 MRTU Go-Live**

This memorandum does not require Board action.

EXECUTIVE SUMMARY

This memorandum describes the Market Redesign and Technology Upgrade (MRTU) status through June 2008 and proposes a plan for proceeding towards a Fall 2008 Go Live date.

The CAISO has now reached a point of a very significant change in its readiness. Indicators show that there has been a remarkable change in trend in the state of systems' stability and that full testing has been consistently available to participants since the last report to the Board. The Day-Ahead Market is running consistently and is publishing results within the production timeline. The Hour-Ahead Scheduling Process ("HASP") has been finishing on time and is publishing results within the availability and timeline objectives set for the market simulation. The 15-minute Real-Time Pre-Dispatch ("RTPD") and 5-minute Real-Time Dispatch ("RTD") are also finishing on time and dispatching within the availability and timeline objectives set for the market simulation. The settlement charge codes are individually unit tested and the bid-to-bill validation process is in progress. To date, a total of 46 charge codes out of 123 have been initially validated through the bid-to-bill process but have not been fully validated by market participants.

During June, CAISO grid operators performed an intensive two day walkthrough of MRTU processes and systems. The walkthrough was a resounding success and demonstrated that the systems were now at a point where the grid could be effectively operated. Related to quality of solution, we received the final report from LECG which reported once again that there were no material issues with the pricing engines.

Market participants continue to have a number of concerns. Notably the concerns relate to questions about pricing, data traceability, and settlement charge code availability. It is critical that CAISO resolve these issues quickly to instill the confidence necessary for support of a Fall Go Live date.

To allow market participants sufficient time to gain confidence with the improved systems CAISO will address CAISO readiness and MRTU program status at the July Board meeting. The August 14 Board meeting will then be an opportunity for market participants to apprise the Board on their readiness and allow CAISO to provide a further MRTU

program status. This should provide the Board with sufficient information to make an informed decision on the Fall Go Live date. Once the Go Live date is established, CAISO will need to file with the Federal Energy Regulatory Commission, at least 60-days in advance of the Go Live date, the MRTU Readiness Certification which based on this timeline can be no earlier than November 1, 2008.

Below is additional information detailing CAISO's current state of MRTU market readiness and our ongoing efforts to prepare ourselves and our market participants for the market launch. Specifically, this memo updates our status with respect to:

- Technology Readiness
- Internal (Business Unit) Readiness
- External (Market Participant) Readiness
- MRTU Readiness Criteria
- Market Simulation Exit Criteria
- Timeline for Upcoming Events

TECHNOLOGY READINESS STATUS:

Market Simulation Status

The ISO is currently executing its final phase of market simulation, known as Integrated Market Simulation Update 2 (IMS U2). In this phase, all MRTU systems have been integrated, such that market participants can test all MRTU applications end-to-end and all market functionality is available. As demonstrated in the tables below, overall, the market solution availability to participants and participation metrics for IMS U2 indicate that system stability has improved, particularly with respect to the Real-Time Market, and that market participant involvement remains high. Coordinating with market participants, CAISO executed IMS U2 following a graduated approach, initially submitting bids on behalf of market participants until market participants were ready to submit bids without CAISO intervention. By executing in this manner, CAISO was able to demonstrate increased system stability and provide market participants with reasonable confidence as the market simulation moved into testing specific market scenarios.

Day-Ahead Market Status

Though we have run the market simulation continuously since June 1, we do not officially track metrics on the weekend, as that is CAISO's down time to install application patches and validate the patches that were promoted to the market simulation environment. So currently, Monday 8:00 AM through Friday 5:00 PM is considered our market simulation time. Notably during this time, practically all intervals (daily, hourly, 15-minute and 5-minute) have been solved with an alternating current (AC) solution using simulated power flows versus a direct current (DC) solution which allows for a better quality of power flows and pricing.

Day-Ahead Market Running Consistently and Producing Quality Results

	Requirement	Market Simulation Results
DA Market Publishing	Daily	100%
DA Market Publishing Timeline	1300	83% ¹
Availability to submit bids	Graphical User Interface	100%
	Automated Programmatic Interface	100%
Ability to submit bilateral trades	Graphical User Interface	100%
	Automated Programmatic Interface	100%
Quality of Solution	Alternating Current	98% ²

¹ During the June Market Simulation began, publishing of the Day-Ahead Market by 1300 was not met on 5 days. June 5 DA results were published at 1340; June 6 DA results were published at 1335; and June 12 DA results were published at 1313. While the results were published after 1300, they were all published by 1400, the market simulation timeline goal. CAISO received a performance patch from the vendor which was promoted to the market simulation environment on June 15. Since that time 1300 was only missed 2 days – June 19 when DA results were published at 1303 due to the Quality of Solution issue discussed below and on June 24 when CAISO held the market open to allow bids to be received that will trigger additional charge codes.

² The only day where a DC solution was observed was due to ~16,000 MW of participant load missing in the Day-Ahead Market to meet the CAISO Forecast of CAISO Demand and thus a dynamic power flow solution could not be found which is what would be expected in this situation. The results were solved using a DC solution in 13 intervals of the Day-Ahead Market. There are 720 intervals in the 30 days of June.

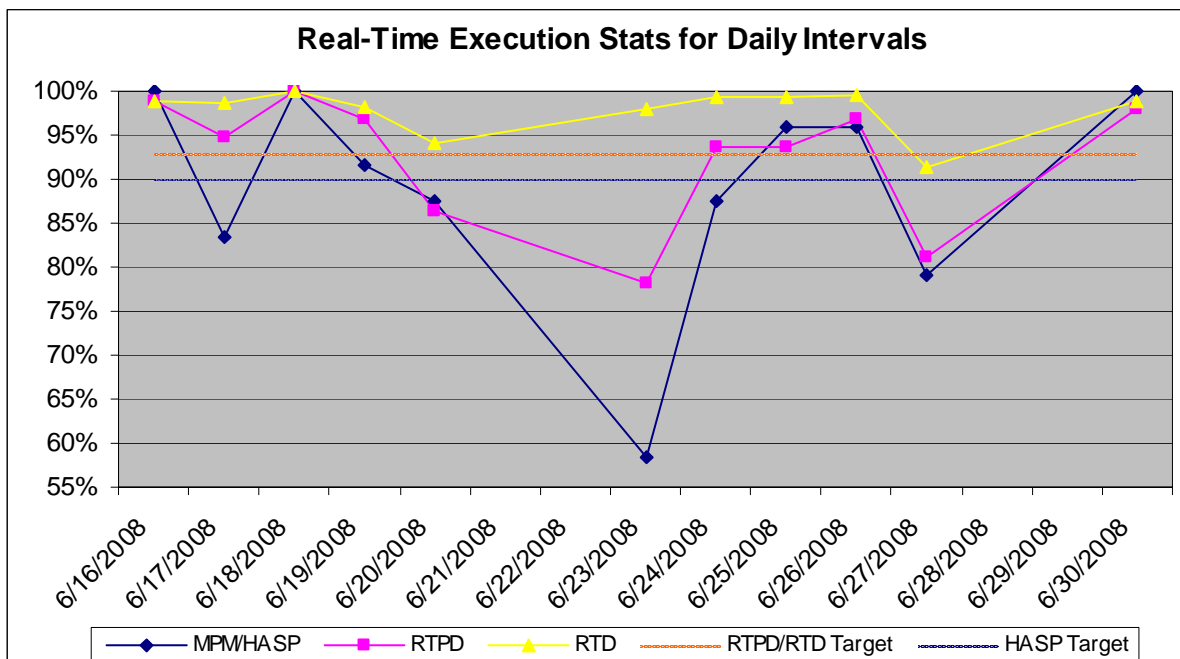
Real-time Market Status

The Real-Time Market has been consistently running and publishing results. Since a number of major patches were deployed into the market simulation environment on June 15, the performance of the Hour-Ahead Scheduling Process ("HASP"), the 15-minute Real-time Pre-Dispatch ("RTPD") and the 5-minute Real-time Dispatch ("RTD") have improved significantly. We are reviewing the results to ensure all necessary data from Real-Time systems are available and appropriately published and passing the correct data to other downstream systems.

With respect to the quality of the solution, the real-time results are generally solving with Alternating Current ("AC") power-flow rather than have to revert to a less complex Direct Current ("DC") solution. This fact is further highlighted because we are now integrated with the Energy Management System ("EMS") simulator and are using the State Estimator solutions from the simulator. Achieving an integrated solution with the EMS simulator is a major accomplishment and represents as far as one can go in a testing environment. Since we are simulating each resource's response to coming online, running and shutting down instead of having actual telemetry from resources that are physically responding like in production, we are encountering some simulation challenges that are resulting in some unrealistic imbalance and pricing results at various times. Actions are being taken to improve the simulation responsiveness to address these observations.

Real-Time Market Running Consistently and Producing Quality Results

	Target	6/16	6/17	6/18	6/19	6/20	6/23	6/24	6/25	6/26	6/27	6/30
HASP	90%	100%	83.3%	100%	91.7%	87.5%	58.5%	87.5%	95.8%	95.8%	79.2%	100%
RTPD	93%	98.96%	94.79%	100%	96.9%	87.5%	78.1%	93.75%	93.75%	96.88%	81.25%	97.92%
RTD	93%	98.96%	98.61%	100%	98.3%	94.4%	96.2%	99.31%	99.31%	99.65%	91.32%	98.96%



Settlement Status

While all 123 charge codes have been tested with stubbed data, CAISO is performing a bid-to-bill validation in the market simulation integrated environment to ensure that both the charge code is correct and the data received by the settlement system is correct. Each charge code typically requires a number of pieces of data or billing attributes to completely calculate (i.e. awarded bids, meter data, nodal prices, exemptions, etc.). Most participants would see approximately 48 charge codes on a daily or monthly basis. The remaining 75 charge codes require specific instances to trigger the data needed to get the charge code to calculate completely with all billing attributes. In numerous instances we have charge codes that have calculated for all of the data available, however to be completely validated, the charge code needs to have one final piece of data. As an example, for the Real-Time Congestion charge codes to completely calculate, CAISO needs 1) a participant to successfully bid an import on an intertie that 2) becomes congested in the Hour-Ahead Scheduling Process ("HASP") and then 3) the transmission line has to be derated in Real-Time. We have seen imports on lines that are congested, or imports on lines that are derated, but not all three requirements simultaneously. So the charge code is valid for all of these separate conditions, but has not been completely validated for this final (all three simultaneously) condition and therefore not considered to have completed the Bid-to-Bill validation process. As of June 30, 2008, 44 of 123 Charge Codes were confirmed by CAISO to meet Bid-to-Bid validation and therefore considered to be in-scope for Market Participant validation.

Market Participant Scenarios

For IMS Update 2, CAISO has worked with market participants to define forty (40) operational scenarios for execution during market simulation. Execution of the scenarios started on May 13, 2008 and will continue until all defined scenarios have been successfully executed. The scenarios center around testing various operational conditions that may exist once we start production including:

- Impact to supply, demand and Existing Contracts when there is a transmission derate
- Insufficient energy, Residual Unit Commitment or Ancillary Service bids or self-schedules and relaxation of limits
- Insufficient bids to relieve congestion and the impact on prices
- Evaluate pump impacts, pseudo ties, tie scheduling priority, over generation conditions, and load flow
- Test Exceptional Dispatch, Extremely Long Start, Daylight Savings transition and nomogram implementation

The scenarios test the impact on the various applications when one of the events described above occurs. Scenarios are scheduled for the Day-Ahead Market or the Real-Time Market, and in some instances a scenario is run in both markets. This information should provide guidance to participants on the impact of various bidding strategies and financial outcomes when a similar operational event occurs in production.

Scenario testing was temporarily suspended for the week of June 16 to ensure the systems were stable with all of the new patches. However during this time the participants were able to continue to fully test the systems by putting in any bid set they desired. The process for executing scenarios requires CAISO to execute them in advance on a test system to determine the type of bids and quantities needed to make the scenario work as expected. CAISO then provides this information to market participants one week in advance to allow participants time to properly structure their bid sets. The day after the scenario is run in the Day-Ahead Market, CAISO briefs the participants on its observations on a morning briefing call. If the scenario is run in Real-Time, CAISO will again verbally brief the participants as to what we saw the day after the trade day, again at a morning briefing call. Then CAISO puts out a written report describing the scenario, the set-up, its observations in the execution of the scenario and whether the scenario went as expected – generally in accordance with the CAISO Tariff and Business Practice Manuals. To date, CAISO has executed 6 scenarios; provided preliminary reports to participants on 5 scenarios and provided final reports on 4 scenarios. Market participants are then asked to validate the scenarios and confirm the results were as expected.

Remaining MRTU Activities

The completion of the following activities will prepare MRTU to exit IMS Update 2. The Program Management and Market Simulation Team are monitoring these on a daily basis:

- Resolution of all critical and very high variances, and resolution or mitigation of all high variances – this varies on a daily basis and a current status will be provided during the Board presentation
- Tracking and completion of all exit criteria is discussed further below
- Execution of all operational scenarios is discussed above

The following phases of market participant testing will continue through MRTU Go Live:

- *Scenario Testing:* Market participants will submit bids and trades based on the operational scenario for the day and for the hours of the specific scenario testing for that day.
 - Round 1: First pass of all defined scenarios.
 - Round 2: Retest effort if scenario does not pass.
- *Market participant testing:* During the scenarios and prior to pre-production, the participants have requested three months of testing and additional training time for their staffs.
- *Pre-Production / Parallel Operations:*
 - Pre-production: CAISO MRTU Operations and Operations Support are running 24 hours a day, with internal processes and roles evolving to MRTU paradigm.
 - Parallel operations: Market participants put in bids and trades consistent with the actual CAISO Forecast of CAISO Demand, generator availability, and trades they are actually making in non-MRTU production that day, mirroring how the participants will actually meet their load and resource configuration on 10/1/2008. Today's requirement in production is to submit a balanced schedule (load + exports = resources + imports). However in the MRTU market structure submitting balances schedules is not required. Therefore for parallel operations participants may submit self-schedules, bids and trades into the MRTU markets.

Environments

Hardware and operating system requirements were initially established by each vendor when the initial contract was executed in 2003 – 2004. Since that time hardware opportunities have changed and MRTU testing with the contracted environment structure has not attained the performance levels needed and CAISO's operating system strategy has changed. Analysis of the requirements and monitoring results has concluded that additional hardware design considerations are needed for the final production environment build. These analysis results primarily included different hardware and operating system options for the database servers. With the new hardware and operating systems, CAISO can obtain substantially improved performance of the applications and reduced overall system costs. In order to maintain system integrity and reliability, and facilitate proper promotion of the environments to production, the final MRTU hardware and operating system configuration will include today's industry standard environments. The status of needed Go Live environments follows:

Production - Folsom and Alhambra with High Availability

- The hardware for the production environments has been delivered.
- Build, configuration, and validation of Folsom production environment to be completed by July 1, 2008.
- Build, configuration and validation of Alhambra production environment is substantially complete and is targeted for completion by July 15, 2008.
- Operational testing
 - Begin failover testing July 1, 2008.
 - Begin fallback\fall forward testing July 15, 2008.

- Remediate any findings
- Cutover high availability environments to market simulation are targeted for August.

Staging

- Current MRTU Update 2 environment to be renamed to staging environment when high availability environments are cutover.

Testing

- The current MRTU Testing environment will remain the testing environment in production.

Cutover / Reversion

Over the last six months, CAISO has worked with participants on the cutover and reversion plan previously presented to the Board. CAISO is in the process of affirming the plan and scheduling an external table-top review with market participants in August.

We are currently reviewing detailed internal cutover and reversion plans for all the MRTU systems and applications. In these plans we are documenting the detailed steps of transitioning to the MRTU version of the applications from the current production and the reversion steps to be taken, if needed. At the same time, we are reviewing and updating the support plan, which includes hardware environment and logistics plans, and the internal communication plan to support the MRTU Cutover and Reversion activities. Internal CAISO table-top reviews are also in progress.

INTERNAL READINESS STATUS

In an effort to accurately monitor, track, and report the readiness activities of each CAISO business unit, we created several phases, each with different milestones for deliverables, training, and process identification: Plan, Analysis, Design, Build, and the Implement Assessment.

Phase	Group A Milestone	Group B Milestone
Plan	10/1/06 – 11/31/06	11/1/06 – 1/31/07
Analysis	10/1/07 – 11/31/07	2/1/07 – 3/31/07
Design	3/1/07 – 5/31/07	3/1/07 – 5/31/07
Build	6/1/07 – 8/31/07	6/1/07 – 8/31/07
Implement Phase	9/1/07 – 11/30/07	9/1/07 – 11/30/07
Go Live Punch List	1/16/08 – Go-live	1/16/08 – Go-live

As of June 2008, each business unit has completed the Plan, Analysis, Design, Build, and Implement Phase Assessments and is currently tracking remaining activities to Go Live.

After the Implement phase assessment was completed, in an effort to monitor internal readiness activities leading up to Go Live, CAISO drafted a checklist of remaining activities. These activities are reported on a weekly basis and the checklist is updated accordingly. The final hands-on technical training courses are scheduled for completion by the end of July. Scenario execution for business units is ongoing and will continue up until MRTU pre-production.

Final sign-off packets have been assembled for all 14 Tier 1 business processes tested end-to-end in April. Business process owners are identifying the gaps and issues that will need to be closed prior to sign-off as well as developing workarounds for those gaps out of their immediate control. CAISO has targeted July 1 as sign-off for the business processes with no outstanding issues. For business processes with gaps and issues still outstanding, we will test and

sign-off on effective workarounds by the end of July, in advance of the FERC certification filing notice. As of July 1, 11 Tier 1 business processes have been transitioned from MRTU to the business units.

EXTERNAL READINESS STATUS

In an effort to monitor market participants’ readiness activities in the year prior to Go Live, CAISO initially decided to conduct three participant assessments (initial Assessment, First Follow-up Assessment, and the Final Assessment) from November 2006 until Go Live. To date, CAISO has conducted two assessments. Both consisting of questions surrounding three categories: People, Process, and Technology in the areas of Communication, Market Simulation, Training, Organizational Readiness and Technical Readiness. The Initial Participant Assessment began in November 2006 and ended January 2007. CAISO used this assessment to engage the scheduling coordinators. The assessment in turn is used to ensure that scheduling coordinators have what they need to obtain information, training and the answers to their questions from CAISO. The First Follow-up Assessment began in June 2007 and ended in August 2007. The primary focus was to gauge the participants’ MRTU implementation progress. The Assessment also provided the market participants with another venue to ask questions or express concerns over their MRTU implementation.

Due to changes in the program, the CAISO readiness team revised the MRTU Assessment activities to better gauge market participant readiness in the months leading up to MRTU Go Live through a series of touch point surveys and assessments. The readiness team is currently conducting a Pre-Final Assessment and functionality touch point survey to confirm that the areas of People, Process, and Technology are either complete or on track for a 2008 Fall Go-Live date. Of the 91 scheduling coordinators that have been sent the survey, 39 have responded as of June 30 (42%). Results from this Pre-Final Assessment will be used to define the scope of the questions asked in the Final Assessment. The results to date are as follows:

Category	% On Track	% On Track with Risk	% Not On Track
People	74%	21%	5%
Process	44%	51%	5%
Technology	51%	5%	44%

The readiness team is preparing for two additional functional touch point surveys and the Final Assessment process scheduled to begin in August. Though the functional touch point surveys are intended to identify gaps in the participant’s readiness, the results of the surveys facilitate the development of mitigation plans with the scheduling coordinator. The plans are then used for continuing discussions to monitor implementation of the needed actions and to ensure that the scheduling coordinator is ready for the MRTU Go Live date. We will use the Final Assessment to confirm our understanding and gain agreement with scheduling coordinators that we have no gaps in the People, Process, and Technology areas that would prevent the scheduling coordinator from operating in the market under the MRTU rules and processes.

The CAISO has continued with various communication forms and outreach activities to ensure that market participants are in the best possible position to achieve MRTU readiness by Go Live. The CAISO has observed a consistent participation rate of market participants in the Implementation Workshops, Market Simulation Planning sessions,

IMS U2 daily phone calls and open bridge, System Interface User Group (“SIUG”), and Settlements and Market Clearing (“SaMC”) meetings.

Recognizing that market simulation testing is an integral part of participant readiness, the readiness team has carried out several efforts during IMS Update 2 to ensure that market participants have an effective testing experience. To gain better visibility into market participants’ simulation experience, 11 scheduling coordinators, selected overall by the market participants themselves, participated in testing at the CAISO’s facilities at the start of IMS Update 2. Participants and CAISO found the on-site testing beneficial. With the open conference bridge, CAISO was able to hold continuous discussion with the market participants who have devoted the time to perform their market simulation testing at CAISO and share that experience with those doing the testing in their offices. This has helped us understand and resolve market participants’ issues. The CAISO committed to keep the room supported as long as both CAISO and the market participants felt there were mutual benefits. As of May 2 the room was temporarily closed; however, the room will be re-opened when the market participants and CAISO agree that the market would benefit from the client testing team’s return.

In addition, the readiness team closely monitored IMS U2 participation. Scheduling coordinators, identified as not participating in IMS Update 2, were contacted by their client representatives to gauge any issues or risks that were preventing them from participating. Identified issues were addressed by the appropriate party, and scheduling coordinators were encouraged to participate in the market simulation. Additionally, an IMS Update 2 functionality touch point was conducted to assess the first 5 weeks of testing in the areas of system connectivity, performance, and successful execution of the systems’ functionalities. This functionality touch point discussed above will be used during summer testing to monitor IMS testing progress.

To ensure that issues are resolved, CAISO has hosted multiple meetings to discuss outstanding participant issues, the most recent major review of all open issues taking place May 19. The meeting’s objective was to provide market participants with the latest general status of open issues, with specific status where possible, to consolidate and close currently open issues and to flag issues for further investigation based on market participants’ suggestions for reprioritization. During the meeting, market participants recommended 30 issues as needing immediate attention. The CAISO conducted a follow-up meeting with participants on June 11 to address these important issues and continue to work on closing the critical open issues and closing or mitigating the remaining open high issues.

External Training

Externally, CASIO has offered 100 through 300 level training and settlements workshops for market participants through computer based training and instructor led training. Over 1000 representatives of market participants have attended the instructor led training sessions hosted at the CAISO and at the sites of several scheduling coordinators.

Recognizing that most of the formal CAISO training has been presented to the market and made available on DVDs or on the CAISO website, CAISO has focused on the development and presentation of a series of refresher training courses over the last few months. These courses included refresher training on Day Ahead and Real Time Scheduling Activities, Bidding and Scheduling Resource Adequacy, and more focused training on the Metered Subsystem activities. All classes have received strong attendance and high marks from market participants.

In preparation for Go Live, CAISO has designed and will implement a Go Live training program that will run July through September, consisting of a 2-day refresher training course entitled “Market Participant Operations ‘Go Live’ Training”. The course is designed to focus on Day-Ahead and Real-Time Market Operations and will target the market participants’ operators, traders, marketers or trainers: individuals who will actually be performing the day-to-day operations of our clients’ businesses or trainers who will be responsible for teaching their coworkers how to operate in the CAISO MRTU Markets. The class will provide a brief overview of the MRTU program and will demonstrate

concepts through the use of participatory exercises for the Day-Ahead Market, the Real-Time Market and Inter-SC Trades.

MRTU READINESS CRITERIA

As directed in FERC Order 1417 and with the support of the market participants, CAISO developed measurable Readiness Criteria that allowed CAISO to:

- Develop a tracking system tied to milestones within the MRTU program timeline,
- Establish a methodology to determine whether scheduling coordinators and the market participants are prepared for MRTU Implementation as well as if CAISO is ready,
- Provide for a monthly update to FERC on the status of these Readiness Criteria, and
- Use as input into the CAISO's certification of readiness to be filed with FERC 60-days prior to the MRTU effective date.

The CAISO began tracking and publishing the status of the Readiness Criteria on January 31, 2007 and has provided monthly status to the Market and to FERC via the MRTU Readiness Criteria Dashboard. The June 30, 2008 update of the Readiness Criteria is attached for reference.

As of July 1, the status of the Readiness Criteria is as follows:

- Total Number of MRTU Readiness Criteria: **33**
- # of Completed Readiness Criteria: **7**
- # of "On Track" Readiness Criteria: **24**
- # of "Not On Track" Readiness Criteria: **2**

The Readiness Criteria that are on-track but incomplete consist predominately of those that will remain unfinished until the market simulation is completed or actual production starts. Below are some examples of Readiness Criteria considered to be "On Track":

- Congestion Revenue Rights need to demonstrate a monthly allocation and auction which can be done until 30 days prior to Go Live.
- The revised Grid Operations Procedures and Emergency Procedures are posted on the CAISO website. This activity can not be completed until the day before production commences, but all procedures have been updated and are ready for posting.
- CAISO will develop tools, processes and procedures for Locational Marginal Pricing validation.
- The Final Competitive Path Assessment (CPA) will be posted one month prior to go live. CAISO has held extensive discussion with participants on the three sets of CPA results published to date.

The two Readiness Criteria considered "Not On Track":

- CAISO will test and implement its final settlement charge code configuration prior to entry of pre-production. Thus, this criterion is waiting for both the bid-to-bill validation and pre-production.
- CAISO will publish accurate and complete settlement statements and invoices during the Update 2 Market Simulation. This criterion is waiting for both the bid-to-bill validation and invoicing.

MARKET SIMULATION EXIT CRITERIA

The CAISO has also worked with market participants to define Exit Criteria for IMS Update 2, and is tracking the progress and completion of each scenario and Exit Criteria on a consolidated dashboard and progress chart. The IMS Update 2 Exit Criteria will help ensure the readiness of both CAISO and market participants before entering Pre-Production. While the Exit Criteria were originally written for a March 31, 2008 Go Live date, the functions required have not changed. The IMS U2 Exit Criteria consist of the following:

Number	Updated Criteria	Status
Variance Availability		
U2.01	Simulation concludes without any open Critical and Very High variances. At least one meeting will be scheduled with market participants as a collaborative effort to review all variances prior to exiting IMS U2. High variances will be repaired and tested when possible while remaining High variances will be mitigated.	Currently no open Critical issues and 8 Very High issues. CAISO has met twice with market participants to review the issues. High issues are being evaluated to determine which will be resolved versus mitigated.
U2.17	Patches in CAISO systems to address Critical, Very High, or High variances that require market participant software changes will be fully tested, installed by CAISO and validated by participants prior to exiting IMS U2.	CAISO is following this on an on-going basis.
IMS Participation		
U2.02	CASIO will make all externally facing MRTU applications available for 100% of SCs to participate.	All external interfaces are available to participants.
U2.03	CASIO will publish the daily list of SCs participating in IMS U2 for SIBR, BAPI, and CMRI for Market Participants to evaluate what SCs that have an obligation to bid resources but are not participating.	CAISO is publishing the daily list of participants.
Settlements		
U2.04	CAISO publishes Settlement Statements and all supporting Settlement documentation including Configuration Guides and Bill Determinants for each Trade Date within TD+15 BD for each initial settlement statement through 2/8/2008 for each SC that participated in IMS U2 consistent with the respective SC's participation.	CAISO is currently publishing settlement statements at TD + 5BD for each initial daily settlement statement. CAISO has been publishing configurations guides and billing determinants in advance of the statement publishing.
U2.05	CAISO publishes Settlement Statements and all supporting Settlements documentation for Month End within TD + 25 BD for each SC that participated in IMS U2 consistent with the respective SC's participation.	CAISO has publishing March and April monthly settlement statements.
U2.06	CAISO publishes Settlement Statements and all supporting Settlements documentation for CRR Auction for each SC that participated in IMS U2 consistent with the respective SC's participation.	CRR charge types are not currently in scope, but expected within the next month. These Charge Codes are being evaluated by the bid to bill team for inclusion into IMS.
U2.07	CAISO publishes accurate Invoices and supporting Settlements documentation for a Trade Month based on respective monthly Settlement Statements for each SC that participated in IMS U2.	Sample Initial Invoices have been distributed to market participants however a market simulation invoice has not been published. The April invoice is currently being validated before presentation to participants.
U2.14	Every Charge Type must be exercised and valid in accordance with the BPM for Settlements & Billing and CAISO Tariff during IMS Update 1 or 2 between 12/10/2007 and 2/8/2008 Trade Dates but not every SC will necessarily be assessed the Charge Type	44 Charge Codes are currently in scope. Scenarios are being created to include the remaining Charge Codes.

Number	Updated Criteria	Status
Markets Run/Solve		
U2.08	Day Ahead market successfully solves and results are published by 1:00 PM for 7 consecutive trading days during IMS U2 Semi-Structured testing.	The Day-Ahead Market has consistently solved for the past several months, with the latest occurrence of six consecutive trade days (6/14-6/19) having published prior to or by 1 PM, we continue to track this progress toward the stated criteria
U2.09	No more than 5 consecutive 5-minute RT cases fail for 7 consecutive trading days during IMS U2 Semi-Structured testing (except in scenarios specifically testing RT failure and contingency plans or during planned outages for patch deployment). RT case failure means no dispatchable solution was reached; does not include DC solutions or solutions achieved through constraint relaxation.	Since early June, market simulation has been consistently running with market participant bids and shortly thereafter, has been trending 90-100% solutions and external market results availability. We continue to track this progress toward the stated criteria.
U2.10	Market Portal, SIBR, CMRI, OASIS, SLIC, ADS, BAPI, OMAR, and Programmatic Interfaces are available 97.5% of the time during the last 4 weeks of IMS U2 (other than periods of disaster recovery testing and backup and restore testing).	Essentially completed. In June, various participants have had intermittent access issues which CAISO responds to quickly.
U2.13	Quality of solution to be 90% AC solution over the last 4 weeks of IMS U2.	To date, the only DC solution seen in 2008 market simulation was on 6/19 as discussed above.
U2.15	All scenarios agreed to by market participants and CAISO will be successfully completed and market participants affirm completion in accordance with scenario dashboard.	The latest scenario execution schedule is published, with the accompanying scenario detail and a published process in place for review, We continue to track this progress toward the stated criteria
U2.16	Market results are based on market inputs and consistent across external markets application	Since early June, market simulation has been consistently running with market participant bids and shortly thereafter, has been trending 90-100% solutions and external market results availability
U2.18	HASP Market successfully solves and publishes within timing guidelines 95% of the time for 7 consecutive trading days during Update 2 Semi-Structured testing	As discussed previously in this document and displayed in "Real-Time Market Running Consistently and Producing Quality Results" table above, we continue to trend in a positive direction toward completion of this criteria.
U2.19	Real-Time Market successfully solves and publishes within timing guidelines 95% of the time for 7 consecutive trading days during Update 2 Semi-Structured testing	As discussed previously in this document and display in "Real-Time Market Running Consistently and Producing Quality Results" table above, we continue trend in a positive direction toward completion of this criteria.
CAISO IT		
U2.11	Backup and restore plans executed for 100% of the market simulation impacted servers deemed operational critical during normal operating hours.	Scheduled for July
U2.12	Archiving and data retention plans for all market simulation systems performed for each day of phase.	Scheduled for July

TIMELINE FOR UPCOMING EVENTS

Market participant testing will continue through the summer. The scenarios will be run and completed as soon as possible. The CAISO will continue to posts on its website:

- Daily Charge Code Status
- Daily Participation Reports
- Daily Market Simulation Issue Reports;
- Daily Market Simulation Status Reports;
- Market Simulation Real Time Data Exchange Reports;
- Weekly Market Simulation Issues Reports;
- Weekly Market Simulation Results; and,
- Weekly Market Simulation Report Cards.

In addition, CAISO will publish weekly the status of the IMS U2 Exit Criteria, scenario execution and the Market Simulation Completion Profile. This data should provide sufficient advance notice of the status of the program to participants. Key upcoming dates include:

August 7 – Annual process for the 2009 Congestion Revenue Rights begins

August 14 - ISO Governing Board Meeting: Provide Board the MRTU status and discuss participant readiness

August 26 – MRTU Implementation Workshop: confirm that the Board provisions have been met.

September 8 – 9 – ISO Governing Board Meeting: Provide Board the MRTU status

September 23 - MRTU Implementation Workshop

October 28 – 29 - ISO Governing Board Meeting: Provide Board the MRTU status