



December 21, 2006

**VIA FEDERAL EXPRESS**

The Honorable Magalie Roman Salas  
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 Salas:

Enclosed for filing in the above-captioned docket, please find an original and 14 copies of the Status Report of the California Independent System Operator Corporation ("CAISO"). An additional copy is also enclosed. Please date-stamp and return it in the self-addressed prepaid Federal Express envelope.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Sidney Mannheim Davies".

Sidney Mannheim Davies  
The California Independent System  
Operator Corporation  
151 Blue Ravine Road  
Folsom, CA 95630

Attorneys for the California Independent  
System Operator Corporation



each element; (3) progress report; (4) accomplishments/milestones; and (5) planned activities<sup>1</sup>. Attachment B addresses the development of both the CAISO and market participant readiness criteria. The information contained in Attachment B reflects the current status of the CAISO's MRTU Readiness Program.<sup>2</sup>

Highlights related to MRTU implementation identified in Attachment A include: (1) CAISO Board of Governors decision on December 19, 2006 resulting in revised scope, schedule and budget increase and an extension of the implementation date for Release 1 MRTU from November 2007 to January 31, 2008; (2) Congestion Revenue Rights – Tier III allocation results published, and Yearly Auction Bid conducted and results posted; (3) multiple Build activities completed as part of integration; (4) progress made in Functional Integration Testing; (5) SaMC – first set of Charge Codes for testing delivered; (6) Full Network Model and State Estimator – onsite testing of database 1 regression completed; (7) Integrated Forward Markets – fourth week of Analysis Track phase 2 completed; and (8) Market Quality Systems – all test cases for Site Acceptance Test passed.

Highlights on status of readiness activities included in Attachment B: (1) Readiness Criteria posted to CAISO Website on December 19, 2006<sup>3</sup>; (2) 37 on-

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<sup>1</sup> The Market Redesign and Technology Upgrade Program is comprised of seven major system projects – (1) Integrated Forward Markets/Real-Time Market/Full Network Model ("IFM/RTM/FNM"), (2) Scheduling Infrastructure Business Rules ("SIBR"), (3) Congestion Revenue Rights ("CRR"), (4) Settlements and Market Clearing ("SaMC"), (5) Legacy Systems, (6) Master File Redesign ("MFRD") and (7) Post Transaction Repository ("PTR").

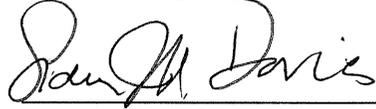
<sup>2</sup> Documents relating to the CAISO's MRTU implementation and readiness activities can be found at the following link: <http://www.caiso.com/docs/2005/06/21/2005062113583824742.html>.

<sup>3</sup> The readiness criteria are published at the following link: <http://www.caiso.com/18d0/18d0e11f139b0.html>

site and Assisted Self-assessments conducted; (3) majority of the 36 Self-Assessments were received; (4) action plans developed for completed assessments; (5) Participant Assessment approach updated based on the FERC Order impacts; and (6) all external sessions with Market Participants scheduled for 2006 completed.

Dated: December 21, 2006

Respectfully submitted,

A handwritten signature in cursive script, reading "Sidney Mannheim Davies", written over a horizontal line.

Sidney Mannheim Davies

Counsel for the California Independent  
System Operator Corporation

## ATTACHMENT A

Attachment A - FERC Status Report – January 2007

# Market Redesign and Technology Upgrade FERC Update

January, 2007

## Project Update

**The CAISO Board of Governors met December 19, 2006 and approved a scope, schedule and budget increase for the MRTU project.**

- Scope expanded to include FERC directives impacting software of:
  - Export Self-schedule
  - MSS Bid Cost Recovery
  - Pumps
  - Long-term Congestion Revenue Rights
  - Settlement and publication modifications
- Schedule extended to January 31, 2008 “Go Live”
- Budget increased to \$189.223

**Impact of this new authorization will be incorporated in next months report**

MRTU Schedule	
Current Period	Trend
	
<b>Tracking Delay: 6 weeks +</b> <b>Critical Path Items: System Development, Integration Testing</b>	

MRTU Budget	
Current Period	Trend
	
<b>Approved MRTU budget: \$170.0 M*+</b> <i>*Upward pressures/levers being managed</i> <b>+Impact of Board approval will be incorporated in next months report.</b>	

- Majority of System Development activities are complete for base project. PMO worked with vendors and internal projects to finalize delivery dates. Mitigations are being implemented to address the current 6 week IFM/SIBR schedule slip
- Integration Testing executing to R2/3 FIT schedule, with a 4 week delay
- PTR reevaluating schedule and scope with new PM
- Initial CRR annual allocation and auction complete
- Market Simulation Phase 1 complete. Market Simulation Phase 2 has been extended to 2 sub-releases and communicated to Market Participants
- Release Plan updated to address new Market Simulation phasing
- MRTU accomplishments include: SaMC delivered its first set of Charge Codes for testing; Legacy completed design and build of multiple applications; PTR developed two applications; MQS completed SAT and AIT for V1.0, Integration team delivered all P3 interfaces

- Completed Impact Assessment of FERC ruling on MRTU.
- Board of Governors approved budget increase to \$189.223M
- CAISO working with key vendors to re-negotiate remaining work and fees
- MRTU continues to work with business units to address upward budget pressures

	 Delay, but will not impact 11/07 Go-live date.
	 Delay, will impact 11/07 Go-live date. Use of contingency funds.

	Variance less than +2 %		Situation has improved since last reporting period.
	Variance between +2 % and +6 %		No change since last reporting period.
	Variance over + 6%		Situation has deteriorated since last reporting period.

## MRTU Executive Summary

Over the past month, MRTU has moved closer towards implementation with many MRTU projects steadily achieving their development, testing, and delivery milestones.

The month's primary System Development, and Functional and Site Acceptance Testing accomplishments include: Congestion Revenue Rights (CRR) published Tier III allocation results, and closed, ran, and posted Yearly Auction Bid results; Full Network Model and State Estimator (FNM/SE) completed onsite testing of DB1 and continued model development updates. Integrated Forward Markets (IFM) completed its fourth week of Analysis Track Phase 2; Settlements and Market Clearing (SaMC) is planning to deliver Charge Codes for testing and complete Business Associate Portal Phase 2 testing by the end of the year. Projects continue to progress with Site Acceptance Testing (SAT) and meet appropriate exit criteria; several applications have progressed with Functional Acceptance Testing (FAT) and continue to transfer into Application Integration Testing (AIT).

Concurrently, the Program Management Office (PMO) has made strides by completing a Budget Mitigation Analysis, drafted a Configuration Management Plan, and is evaluating impact of the FERC order. The Integration team completed many Build activities while transitioning work to Quality Assurance and AIT/Functional Integration Testing (FIT). Project teams continue to collaborate with the Integration and Integration Testing teams to synchronize development and delivery efforts against the new release plan.

MRTU development, testing, and integration efforts continue to approach many milestone completions. The PMO continues to analyze budget lever and cost pressures for the entire project.

# MRTU Program Progress as of November 17, 2006



California Independent System Operator Corporation

Program Area	Design	Build	Test	Integration Test	End-End Test	Market Simulation	Deployment
Phase 1A							
Phase 1B							
<b>Market Systems</b>							
Real-Time Market							
Integrated Forward Mkt							
Hour-Ahead Processor							
Residual Unit Com.							
Scheduling							
Policy Must-Haves							
<b>Settlements</b>							
Base Product							
Charge Types							
Congestion Revenue Rights							
<b>Legacy</b>							
Automated Dispatch System (ADS)							
Reference Level Calculator (RLC)							
Scheduling and Logging System (SLIC)							
Compliance Automation Production System (CAPS)							
Existing Transmission Contract Coordination (ETCC)							
Operational Meter Analysis and Reporting (OMAR)							
Open Access Same-Time Information System (OASIS)							
Reliability-Must-Run Application Validation Engine (RAVE)							
<b>Other Applications</b>							
Market Quality System							
PTR							
Portal							
MFRD							

Legend	
Phase not started	
Phase in progress	
Phase complete	

## Supporting Activities

Program Area	Planning	Development	Execution
Internal Readiness			
External Readiness			
Training			
Business Processes (Phase 1)			
BPMS			

## Accomplishments & Milestones

### Integration

- Multiple Build activities completed

### Testing

- Progress Functional Integration Testing (FIT)

### Congestion Revenue Rights

- Published Tier III allocation results
- Closed and ran Yearly Auction Bid, posted results

### SaMC

- Delivered first set of Charge Codes for testing

### Program Management Office (PMO)

- Budget mitigation analysis completed
- Drafted Configuration Management Plan
- Produced and reviewed External Specifications Management Plan
- Evaluated impact of FERC Order

### Full Network Model and State Estimator

- Completed onsite testing of DB1 Regression
- Continue model update process development

### Integrated Forward Markets

- Complete fourth week of Analysis Track Phase 2

### Market Quality Systems

- Passed all Site Acceptance Test (SAT) test cases and formal v1.0 exit complete

## Planned Activities

### Project

- Re-baseline project to incorporate approved scope, schedule and budget

### Integration

- Complete Infrastructure Orchestration (Automated Market Open and Close) on 12/30

### Testing

- Complete FIT for second phase of Market Simulation Phase 2

### Integrated Forward Markets/Real-Time Nodal

- Complete FAT and SAT for first sub-release of Siemens Coordinated Release 3
- Continue support of Integration Test and Market Simulation

### Congestion Revenue Rights

- Open Market for Monthly Nominations (Tier 1)
- Continue Site Acceptance Test for latest build

### SaMC

- Complete Charge Code Testing for May Market Simulation
- Complete Market Clearing Testing for May Market Simulation

### Full Network Model

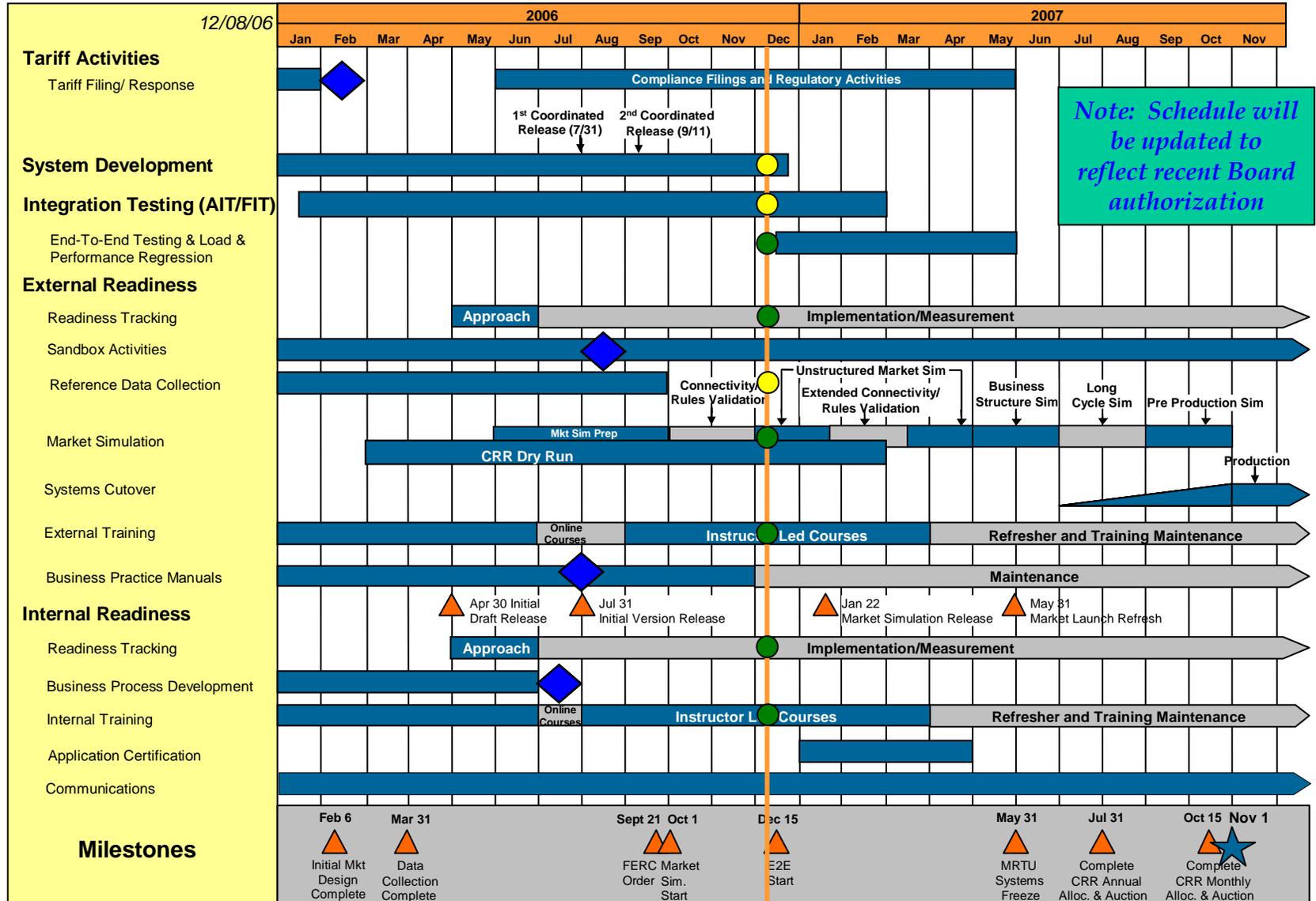
- Finalize Model Update Testing Process

### Legacy

- Continue Application Integration Test (AIT) and (FIT) execution
- Complete Energy Allocation data model and mapping

### Market Simulation

- Commence Business Structure Simulation (Phase 3) Planning

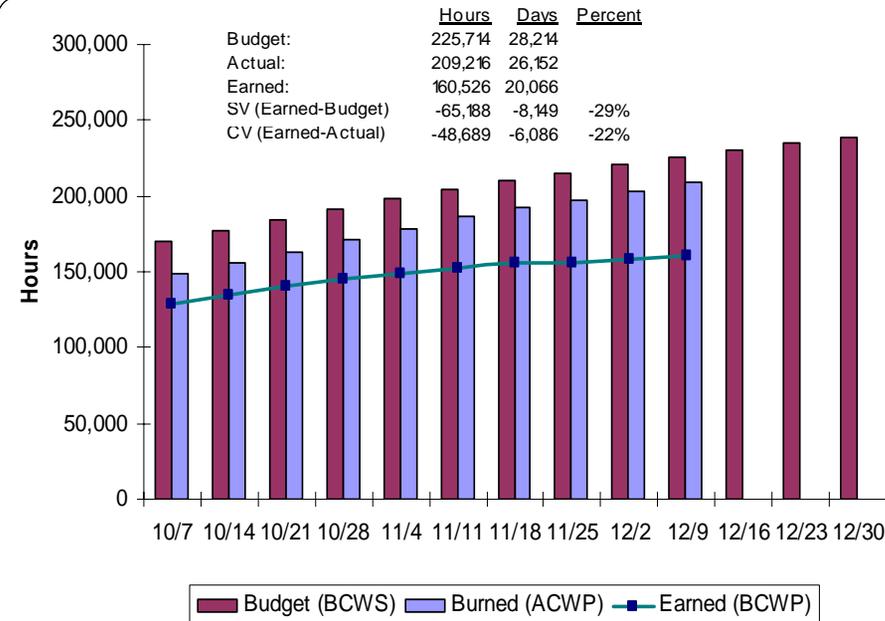


Note: Schedule will be updated to reflect recent Board authorization

## Program Key Metrics

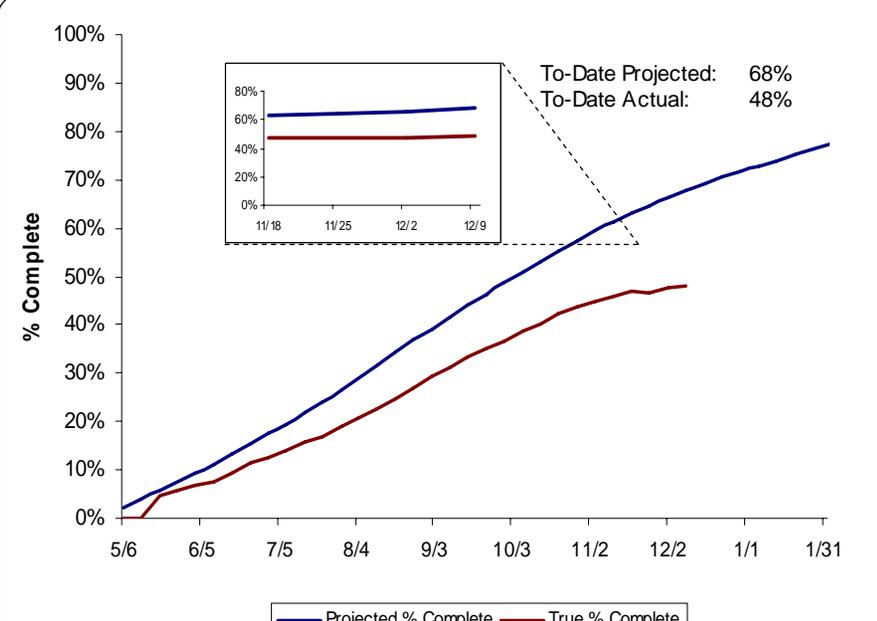
### Cumulative EV – Entire MRTU

(Budget vs. Actual vs. Earned)



### Cumulative EV – Entire MRTU

(Projected % Complete vs. Actual % Complete)



Included in Graph: BPM, Business Process, SIBR, Training, FNM/SE, IFM, MQS, CRR, MFRD, SaMC, Portal, Testing, Integration, PTR, PMO, Legacy, STiNG, Readiness, and Technical Architecture.

Not Included in Graph: n/a

- Actual hours burned by MRTU projects are below the planned rate. A significant portion of the discrepancy can be explained by Testing remaining understaffed until systems come online and earned value is consistent with burned hours
- Current earned value is tracking below planned earned value due to various delays

California Independent System Operator  
Summary of Expected Completion Costs vs. January 30, 2006 Budget  
November 30, 2006  
(In Thousands) \*

Project	Re-baselined Project Costs June 2006 (a)**	Actual Costs Through 2005 (b)	Paid Invoices To Date 11/30/06 (c)	Estimated Costs to Complete (d)	Cost of Project at Completion (e)= (c+d)	RA Increase (Decrease) from Reforecast (f)=(e-a)
<b>Market Redesign</b>	<b>\$ 56,519</b>	<b>\$ 40,235</b>	<b>\$ 46,905</b>	<b>\$ 12,345</b>	<b>\$ 59,250</b>	<b>\$ 2,731</b>
1 Automatic Mitigation Procedures/Phase 1A	\$ 773	\$ 773	773	\$ -	773	0
2 Real Time Markets/Phase 1B	16,297	16,297	16,297	0	16,297	0
Integrated Forward Markets/Real -Time Market/Full						
3 Network Model (IFM/RTM/FNM)	29,205	17,010	22,019	9,300	31,319	2,114
4 Congestion Revenue Rights - (CRR)	4,014	3,386	3,749	435	4,183	169
4A Market Quality System - (MQS) ****	2,643	0	1,121	1,969	3,090	447
11A Hardware & Software Purchases	3,588	2,769	2,947	642	3,588	0
<b>Technology Upgrade</b>	<b>\$ 68,954</b>	<b>\$ 34,137</b>	<b>\$ 54,242</b>	<b>\$ 14,480</b>	<b>\$ 68,721</b>	<b>\$ (233)</b>
5 Scheduling Infrastructure Business Rules - (SIBR)	12,086	6,326	9,403	2,490	11,893	(193)
6 Settlements and Market Clearing -(SaMC)	17,391	5,313	14,742	2,303	17,045	(346)
7 Master File -(MFRD)	2,279	1,860	2,253	40	2,293	14
9 Post Transactional Repository - (PTR)	2,177	1,041	1,778	229	2,007	(170)
10 Legacy Systems	7,638	3,434	5,522	1,055	6,577	(1,061)
10A State Estimator/Full Network Model	1,024	157	933	248	1,181	158
11 Technology Infrastructure	2,065	2,028	2,044	17	2,061	(4)
11B Hardware & Software Purchases	6,923	4,566	4,758	2,165	6,923	0
12 System Integration/Enterprise Architecture	17,372	9,412	12,808	5,933	18,741	1,370
<b>Common Projects ***</b>	<b>\$ 36,215</b>	<b>\$ 9,670</b>	<b>\$ 19,572</b>	<b>\$ 16,726</b>	<b>\$ 36,297</b>	<b>\$ 83</b>
13 Training/Readiness Projects	10,021	916	4,833	5,141	9,973	(47)
14A Project Management	14,248	7,674	10,835	3,087	13,923	(325)
14B Testing	11,946	1,080	3,903	8,498	12,401	455
<b>Ongoing Scope Adjustments</b>	<b>\$ 3,357</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 777</b>	<b>\$ 777</b>	<b>\$ (2,580)</b>
Pending MRTU Scope****	3,357	0	0	777	777	(2,580)
<b>Contingency</b>	<b>\$ 5,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5,000</b>	<b>\$ 5,000</b>	<b>\$ -</b>
15 Contingency	5,000	0	0	5,000	5,000	0
<b>Total MRTU Project</b>	<b>\$ 170,045</b>	<b>\$ 84,042</b>	<b>\$ 120,719</b>	<b>\$ 49,327</b>	<b>\$ 170,045</b>	<b>\$ (0)</b>

Note: Financials will be updated next month to incorporate new scope, schedule and budget.

## **ATTACHMENT B**

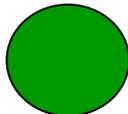
Attachment B - FERC Status Report – January 2007

# **MRTU Readiness Program Summary**

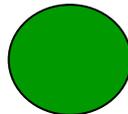
## **FERC Update**

January 5, 2007

## MRTU Executive Summary

MRTU Readiness Schedule	
Current Period	Trend
	

- Training conducted on schedule.
- Tracking internal CAISO readiness has been fully initiated and launched across the all Business Units.
- Participant Readiness activities are now on schedule as readiness criteria and measures have been completed and agreement has been made between CAISO and Participants.
- Approval of Readiness Criteria definitions with Participants. New version posted on CAISO website on December 19<sup>th</sup>.
- Participant Assessments to establish readiness baseline have been conducted during November/December and will continue into January. Recent accomplishments include:
  - 31 of 39 On-site and Assisted Participant Assessments have been conducted. Additional Assessments will be completed in January
  - Some of the 36 Self Participant Assessment have been submitted. Additional submissions expected in January

MRTU Readiness Budget	
Current Period	Trend
	

- Training and Readiness activities remain under budget.
- CAISO staff supporting internal business unit readiness is in place and executing identified tasks.
- CAISO staff supporting the Participant Assessment activities is in place and executing identified tasks.
- Internal and External Readiness Team composed of CAISO and Consultants is in place and executing to work plan.

	Complete		No Delays
	Delay, but will not impact 11/07 go-live date. Contingency maintained, but at risk.		
	Delay, will impact program delivery and 11/07 Go-live date. Use of contingency funds.		

## MRTU Readiness Program Executive Summary

The MRTU Readiness program focuses on a set of activities to ensure that the people, processes, and technologies for both CAISO and the Participants are ready for the implementation of the MRTU program in November 07. The MRTU Readiness Program has successfully launched and implemented concurrent Readiness efforts since August 06 with the following areas of progress:

- Stakeholder Interaction process underway to work with Participants to gain awareness, get an understanding of the changes, and to address inquiries.
- Outreach program underway for both Participants and CAISO to identify gaps and make required process adjustments as necessary.
- Conducted weekly working sessions with key impacted CAISO business units to review tasks for Analysis Phase.
- Reviewing key impacted CAISO business unit readiness plans for completeness.
- Gathered and incorporated Participant comments and FERC Order impacts on Readiness Criteria that will be used to assess and monitor readiness towards the MRTU Implementation.
- Executed Participant Assessments for the majority of Participants in order to assess and monitor Participants readiness with regard to People, Process and Technology.
- Conducted the baseline readiness assessment in November/December and will continue into January. Participant Readiness will be updated with action plans and follow-up assessments throughout the year prior to MRTU Implementation.

## Readiness Progress (As of January 4, 2007)

### CAISO Business Unit Readiness Summary

Program Area	Planning	Development	Execution	Comments
Outreach	✓	✓	✓	<ul style="list-style-type: none"> <li>Executing the Outreach Campaign (Kick-off meetings, periodic assessments, progress communication).</li> <li>Conducted all of the Business Unit Readiness Kick-off meetings with ISO departments</li> </ul>
Assessments	✓	✓	✓	<ul style="list-style-type: none"> <li>Reviewing Core business units readiness work plans.</li> <li>Non-Core business unit work plans are not due until 01/31/07</li> </ul>
Business Unit Readiness	✓	✓	✓	<ul style="list-style-type: none"> <li>Continued weekly meetings with Core Business Units (medium/high MRTU impact) to discuss next milestone tasks</li> <li>Completed kickoff meetings with Non-Core Business Units (no/low MRTU impact)</li> </ul>
Training	✓	✓	✓	<ul style="list-style-type: none"> <li>Completed the Intermediate courses for 2006: 5 sessions with Operations and 4 sessions with non-Operations</li> <li>Advanced level courses under development, scheduled for 2007</li> <li>Additional courses as required</li> </ul>

## Readiness Progress (As of January 4, 2007)

### Market Participant Readiness Summary

Program Area	Planning	Development	Execution	Comments
Stakeholder Interaction	✓	✓	✓	<ul style="list-style-type: none"> <li>Established and supporting Participant Readiness Advisory Group</li> <li>Established and supporting MRTU Implementation Workshop</li> <li>Developed Stakeholder Action Items &amp; Issues Report</li> </ul>
Outreach	✓	✓	✓	<ul style="list-style-type: none"> <li>Developed and implemented Outreach Campaign Design (phone campaigns, MRTU Milestone Details, etc )</li> <li>Supporting MRTU Bulletin Board content</li> </ul>
Market Participant Readiness	✓	✓	✓	<ul style="list-style-type: none"> <li>Implemented participant assessments for approximately 70 market participants that include following: On-site assessment, Assisted self-assessment, Self-assessment</li> <li>Conducted: 10 of 13 On-sites and 21 of 26 Assisted self-assessments in Nov. and Dec.</li> <li>Received some of the Self-assessments</li> <li>Will conduct remaining On-site and Assisted assessments and gather the remaining Self-assessments in January</li> </ul>
Training	✓	✓	✓	<ul style="list-style-type: none"> <li>Completed 7 sessions of the Intermediate courses</li> <li>Confirmed two additional Intermediate sessions (8 and 9) in January/February 2007</li> <li>Planning for advanced level courses scheduled for 2007</li> <li>Additional training as required</li> </ul>

## Readiness Progress (As of January 4, 2007)

### Readiness Criteria Summary

Program Area	Planning	Development	Execution	Comments
Readiness Criteria	✓	✓		<ul style="list-style-type: none"> <li>• Gathered and incorporating Participant comments and FERC Order impacts to finalize Readiness Criteria that will be used to assess and monitor readiness towards the MRTU Implementation in November 07.</li> <li>• Reports are in progress of development to include the following:               <ul style="list-style-type: none"> <li>• Roll-up of categories indicating readiness, risks and actions</li> <li>• Dashboards provided to the Business Unit owners, MRTU Steering Committee, Officers, Board and Market Participants</li> </ul> </li> <li>• Tracking for Readiness Criteria will begin January 2007</li> </ul>

## **CAISO Internal Assessment (Personnel)**

- Implemented internal communication actions based on feedback from company wide readiness assessment

## **Business Unit Readiness**

- Continued weekly meetings with Core Business Units (medium/high MRTU impact) to discuss next milestone tasks
- Completed kickoff meetings with Non-Core Business Units (no/low MRTU impact)

## **Internal Training**

- Completed the Intermediate courses for 2006: 5 sessions with Operations and 4 sessions with non-Operations

## **Stakeholder Interaction**

- Continued to implement Participant Readiness Advisory Group and MRTU Implementation Workshops

## **External Outreach**

- Supported Participants with information needs resulting from Assessments and Readiness Criteria

## **Market Participant Readiness**

- Conducted 37 On-site and Assisted Self-assessments
- Received majority of the 36 Self-Assessments
- Developed Action Plans for the completed assessments
- Updated the Participant Assessment approach based on the FERC Order impacts

## **Participant Training**

- Completed all external sessions with Market Participants for 2006
- Confirmed two additional Intermediate sessions (8 and 9) in January/February 2007
- Updated CAISO web site with calendar, agenda, and registration form for training sessions 8 and 9.

## **Readiness Reporting**

- Finalized and achieved consensus with Participants on Readiness Criteria and Measures
- Incorporated changes to the Readiness Criteria based on the FERC Order impacts

### **Internal Outreach**

- Continue CAISO wide information sessions and meetings to provide MRTU readiness updates

### **CAISO Internal Assessment (Personnel)**

- Continue communication activities based on feedback from company wide readiness assessment
- Conduct follow-up company wide readiness assessment survey

### **Business Unit Readiness**

- Continue to gather and review readiness work plans for each core Business Units including Grid Operations, IT, External Affairs, Market Services, and Operations Support
- Continue to meet with core Business Units on a weekly basis and meet with non-core Business Units as needed

### **Internal Training**

- Continue to conduct Intermediate courses scheduled for 2006
- Continue developing Advanced Courses for 2007

### **Stakeholder Interaction**

- Continue supporting Participant Readiness Advisory Group and MRTU Implementation Workshops

### **External Outreach**

- Provide performance report for the new triage process for answering Participant inquiries for MRTU and reporting capabilities to address FERC turnaround requirements

### **Market Participant Readiness**

- Conduct remaining 2 On-Site Assessments and receive remainder of the Self-Assessments from Participants
- Complete the remaining action plans for Participants

### **Participant Training**

- Conduct two additional intermediate sessions (8 and 9) in January/February 2007

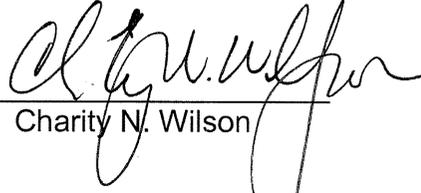
### **Readiness Reporting**

- Establish 60 Day Prior to MRTU implementation sign-off process and governance approach
- Tracking and reporting the MRTU Readiness Criteria
- Publish first baseline Readiness report for Participants and CAISO Business Units

## 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 21<sup>st</sup> day of December 2006.



Charity N. Wilson