

#### November 5, 2007

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 Ms. Bose:

Enclosed for filing in the above-captioned docket, please find an electronic copy of the November 2007 Status Report of the California Independent System Operator Corporation.

Respectfully submitted,

#### /s/ 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

# UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

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

## NOVEMBER 2007 STATUS REPORT OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

The California Independent System Operator Corporation ("CAISO") respectfully submits this monthly progress report ("Report") in compliance with Paragraph 1415 of the Commission's September 21, 2006 "Order Conditionally Accepting The California Independent System Operator's Electric Tariff Filing To Reflect Market Redesign and Technology Upgrade," 116 FERC ¶ 61,274 (2006) ("September 21 Order"), issued in the above-referenced docket.

The September 21 Order requires the CAISO to file monthly reports concerning the progress in designing and implementing the CAISO's Market Redesign and Technology Upgrade ("MRTU") and, as required by P 1415 of the September 21 Order, on the CAISO's MRTU readiness program. The CAISO will continue to file this monthly report on the first Monday of the month through the implementation of MRTU, currently slated for March 31, 2008 following the California Board of Governors' August 17, 2007 decision, announced publicly on August 22, 2007, to extend the implementation date.

The monthly report contains two attachments: Attachment A includes the following elements as previously provided: (1) detailed timeline with the sequential and concurrent nature of the design elements; (2) cost estimates for

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) Settlements and Market Clearing (SaMC) Systems – (a) completed market clearing Factory Acceptance Testing (FAT) and Site Acceptance Testing (SAT), and (b) completed all Phase 3 charge codes and released to Integration test for validation; (2) Integrated Forward Markets/Real-Time Nodal – (a) Coordinated Release (CR)3B/CR4 Bundle 1 SAT in progress with targeted release to Integration test on November 5 and (b) CR4 Bundle 1A FAT continuing; (3) Market Quality Systems (MQS) – completed design review for version 2.1; (4) Master File Redesign (MFRD) – released Master File 19.7 to Market Simulation Update 1 environment; (5) Market Definition Service (MDS) – (a) final MDS release completed and moved to Integration test and (b) transitioned project to Fix-It team; (6) Testing – (a) continued Update 1 End-to-End testing with Database 19 Network Model, Master File 19.7 and OMAR, (b) continuing to integrate EMS into Update 1, (c) integrating FERC changes, CR4

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").

Documents relating to the CAISO's MRTU implementation and readiness activities, including the MRTU Readiness Criteria Dashboard posted on January 31, 2007, can be found at the following link: <a href="http://www.caiso.com/docs/2005/06/21/2005062113583824742.html">http://www.caiso.com/docs/2005/06/21/2005062113583824742.html</a>.

Web Services and remaining Legacy applications into Update 2 FIT, and (d)
Load & Performance (L&P) test planning for Update 2 cycles; (7) Full Network

Model/State Estimator – (a) continued work on Database 23 for Update 2; and

(8) Market Certification – (a) continuing review of MQS and CRR projects and

(b) kick-off meeting held with IFM team.

Highlights on status of readiness activities included in Attachment B: (1)

MRTU Working Groups – continued supporting Participant Readiness Advisory

Group, MRTU Implementation Workshops, and SaMC User Group and Systems

Interface User Group; (2) Market Participant Assessments – (a) planning and scheduling for Final Readiness Assessments underway, (b) conducted October touchpoints with Participants, and (c) distributed follow-up action item resolutions to Participants; (3) Market Participant Training – (a) completed Session 11 of 12 Level 200 Market Participant training, and (b) completed Integrated Market Simulation – Release 3, and (4) MRTU Training for CAISO Staff – (a) completed 93% of mandatory training for CAISO Staff (Level 100, 200 and 300), (b) completed 17 out of 17 Phase 2 Process walkthrough sessions across the Business Units, (c) launched Phase 3 Process walkthrough sessions and (d) conducting weekly progress reporting and tracking for Internal Readiness with all core and non-core Business Units.

Dated: November 5, 2007

Respectfully submitted,

/s/ Sidney Mannheim Davies
Sidney Mannheim Davies

Counsel for the California Independent System Operator Corporation

#### **ATTACHMENT A**



Attachment A - FERC Status Report - November 2007

# Market Redesign and Technology Upgrade FERC Update

November 2007

# MRTU Executive Summary

California Independent System Operator Corporation

# MRTU Schedule Current Period Trend Tracking Delay: 0 weeks Critical Path Items: Vendor Delivery, Integration Testing, Market Simulation Schedule

Integrated Market Simulation Release 3 has been extended until
11/9 and will include business scenario testing

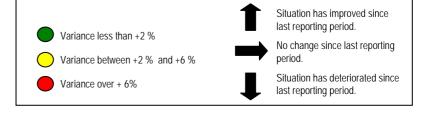
\*Based on approved 4/1/08 Go-Live Trade date

- Integrated Market Simulation Update 1 is delayed one week to ensure system stability and starts on 11/13 with 1 week of structured testing, followed by 3 weeks of semi-structured testing
- Integration Test execution for Update 2 is targeted to begin on 11/5 integrating FERC changes and remaining Legacy systems
- Integrated Market Simulation Update 2 is targeted to start on 12/17
- Implementation Workshop and Settlements Charge Code Training to be held on 11/14 -15

MRTU Budget				
Current Period Trend				
G				
Approved MRTU budget: \$189.223 M* *Based on approved budget on 12/06				

- PMO continues to process change requests and evaluate against approved budgets.
- PMO has begun to use the contingency but is within the total program budget of \$189.223M.

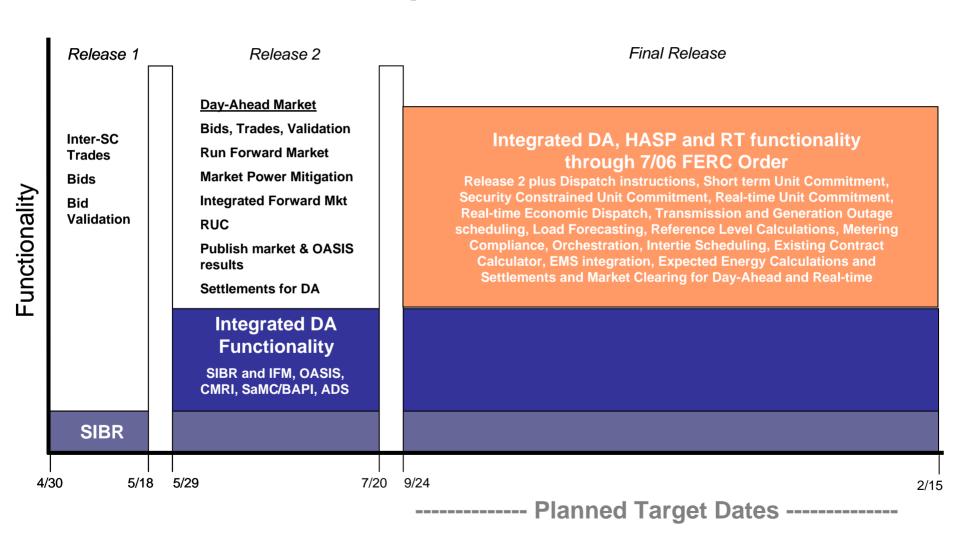




- The Integrated Market Simulation (IMS) Release 3 began on 9/24 and will conclude on 11/9 after business scenario testing. IMS Update 1 will begin on 11/13 and will continue through 12/7. The focus is now completing End to End testing for Update 1 while beginning integration testing for IMS Update 2 and finalizing semi-structured test scenarios.
- The Readiness team completed 100% of 1<sup>st</sup> Follow Up Participant Assessments and distributed personalized Action Plan Letters to each Market Participant. A first round of touch points was conducted in October to gauge the Market Participant engagement and experience in Market Simulation. The team also conducted internal readiness checkpoints to review Implement Phase criteria with each of the CAISO Business Units. The second Readiness Milestone sign-off package was delivered to the Directors, Officers and CEO. The Training team completed two External Level 200 sessions, the first of three Settlements Charge Code Training sessions and is developing Operator Role-based training.
- The Testing team continues to integrate the new Network Model, Masterfile, OMAR and EMS into Update 1 and run Day-Ahead and Real-Time Markets integrating FERC order changes and the remaining Legacy systems into Update 2 FIT and End to End Testing. Remaining Settlements Charge Codes are also being validated to be release into Market Simulation as available.



# **IMS Scope and Schedule**





# **Accomplishments & Milestones**

#### **SaMC**

- Completed Market Clearing FAT and SAT
- Completed all P3 Charge Codes and released to Integration Test for validation

#### **Integrated Forward Markets/Real-Time Nodal**

- CR3C/CR4 Bundle 1 SAT in progress with targeted release to Integration Test on 11/5
- CR4 Bundle 1A FAT continuing

#### **Market Quality Systems**

Completed design review for V2.1

#### **MFRD**

Released MF19.7 to Market Simulation Update 1 environment

#### **MDS**

- Final MDS release completed and moved to Integration Test
- Transitioned project to Fix-it Team

#### **Testing**

- Continued Update 1 End-to-End testing with DB 19 Network Model, Masterfile 19.7 and OMAR.
- Continuing to integrate EMS into Update 1
- Integrating FERC Changes, CR4 Web Services and remaining Legacy applications into Update 2 FIT
- L&P test planning for Update 2 cycles

#### **Full Network Model/State Estimator**

Continued work on DB23 for Update 2

#### **Market Certification**

- Continuing review of MQS and CRR projects
- Kick-off meeting held with IFM team

#### **Planned Activities**

#### SaMC

Deliver Charge Codes effected by new scope changes

#### **Integrated Forward Markets/Real-Time Nodal**

Complete CR3C/CR4 Bundle 1 and 1A testing and support integration testing

#### **Market Quality Systems**

- Complete test case development for V2.1 release
- Begin V2.1 FAT/SAT testing

#### **MFRD**

 Begin MF DB23, develop timeline for SC participation in the Market Sim Update 2 environment

#### **Testing**

- Complete End to End Testing with DB 19 Network Model, Masterfile 19.7, EMS integration and OMAR for IMS Update 1.
- Complete testing semi-structured scenarios for IMS Update 1
- Begin FIT Testing and End to End planning for Update 2
- Continue to validate remaining SaMC Charge Codes
- Begin L&P testing for Update 2
- Market Simulation: Support IMS Update 1 and facilitate Planning Sessions for IMS Update 2

#### Full Network Model/State Estimator

- Complete DB23 and continue Analysis Track Testing Effort
- Complete closeout of gap issues identified in Readiness walkthrough

#### **Market Certification**

- Continue review of MQS and CRR projects
- Start reviews of IFM



## MRTU Program Progress as of November 2, 2007

Program Area	Design	Build	Test	Integration Test	End-to-End	Market	Deployment
Phase 1A							
Phase 1B							
Market Systems							
Real-Time Market							
Integrated Forward Market							
Hour-Ahead Processor							
Residual Unit Com.							
Scheduling							
Policy Must-Haves							
FERC Changes - Market Systems							
Settlements							
Base Product							
Charge Types							
Congestion Revenue Rights							
FERC Changes - Settlements/CRRs							
Legacy							
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)							
Other Applications							
Market Quality System							
PTR							
Portal							
MFRD							
FERC Changes - Legacy/Other Applications							

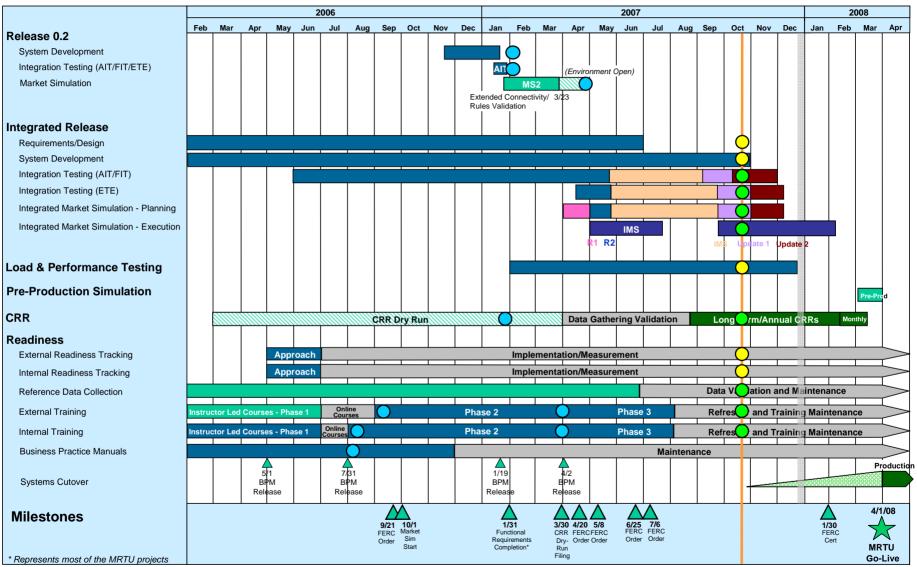
Legend	
Phase not started	
Phase in progress	
Phase complete	

Supporting Activities

Program Area	Planning	Development	Execution
Internal Readiness			
External Readiness			
Training			
Business Processes (Phases 1 & 2)			
BPMs			

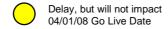


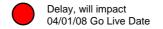
# **MRTU High-Level Timeline**







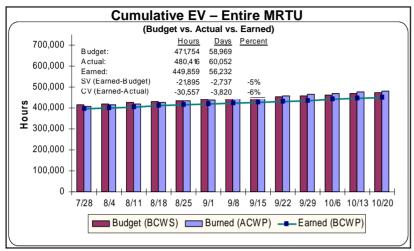




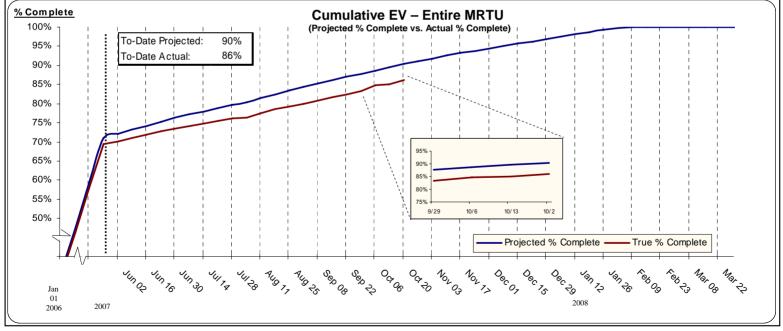
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## **Program Key Metrics**



# Notes/Comments: Graph represents the new baseline as of June 2006.





### **MRTU Financials**

California Independent System Operator Summary of Expected Completion Costs vs. December, 2006 Budget September 30, 2007 (In Thousands) \*

	Project		paselined Project osts Dec. 2006 (a)**		ual Costs ough 2006 (b) 49,990	To	I Invoices o Date /30/07 (c) 58,357	Co Cor	nplete (d)	Cost of Pro at Comple (e)=(c+c	ion	(De from <b>(f</b>	)=(e-a)
4	Market Redesign	Þ	•	Þ	<b>49,990</b>	Φ	773	Þ	3,773		73	Þ	(2,677)
2	Automatic Mitigation Procedures/Phase 1A Real Time Markets/Phase 1B		773 16,297		16,297		16,297		0	16,2			0 0
3	Integrated Forward Markets/Real -Time Market (IFM/RTM)		33,372		23,673		29,224		2,011	31,2			(2,138)
3 4	Congestion Revenue Rights (CRR)		4,516		3,986		4,545		105		550		135
4A	Market Quality System (MQS)		6,261		2,315		4,543		1,044	,	i 387		(674)
11A	Hardware & Software Purchases		3,588		2,947		2,975		613		88		(074)
11/4	Tiardware a Gortware Faronases		3,300		2,541		2,010		010	0,0	,00		U
	Technology Upgrade	\$	74,179	\$	61,020	\$	69,466	\$	5,017	\$ 74,	183	\$	304
5	Scheduling Infrastructure Business Rules (SIBR)		13,323		9,727		11,125		1,486	12,6	12		(712)
6	Settlements and Market Clearing (SaMC)		18,030		16,170		18,041		2,000	20,0	41		2,012
6	Master File (MFRD)		2,300	2,291 2,365			26			91			
9	Post Transactional Repository (PTR)		2,461		2,236		2,710		200	2,9	10		448
10	Legacy Systems		7,785		6,379		7,077		30	7,1	07		(677)
10A	State Estimator/Full Network Model		1,345		1,040		1,170		0	0 1,170		70 (175)	
11	Technology Infrastructure/ Portal		2,065		2,050		2,051		0	2,0	51		(14)
11B	Hardware & Software Purchases		6,923		5,197		6,227		697	6,9	23	0	0
12A	System Integration/Enterprise Architecture		17,989		15,540		17,556		212	17,7			
12B	Technology Architecture		1,957		389		1,144 366		366 1,509		09		(448)
	Common Projects ***	\$	41,214	\$	25,738	•	37,985	\$	9,379	\$ 47.5	364	\$	6,150
13	Training/Readiness Projects	ļΨ	9,709	Ψ	6,975	Ψ	9,816	Ψ	962	<del>Ψ 47,</del> 10,7		Ψ	1,068
14A	Project Management		17,666		11,907		14,021		3,160	17,1			(484)
14B	Testing		13,840		6,856		14,148		5,257	19,4			5,566
			-,-		-,		, -		-, -	- ,			
	Ongoing Scope Adjustments	\$	1,523	\$	-	\$	-	\$	0	\$	0	\$	(1,523)
	Pending MRTU Scope Changes		1,523		0		0		0		0		(1,523)
	Contingency	\$	7,500	\$	-	\$	-	\$	5,246	\$ 5,2	246	\$	(2,254)
15	Program Contingency		7,500		0		0		5,246	5,2	246		(2,254)
	Total MRTU Project	\$	189,223	\$	136,748	\$	165,808	\$	23,414	\$ 189,2	23	\$	(0)

<sup>\*</sup> Columns and rows may not total due to rounding.

<sup>\*\*</sup> Budgets include: Consultant Labor, Vendor Costs, Travel & Meals Expenses, Training, Hardware, Software, Maintenance, Employee Backfill costs

<sup>\*\*\*</sup> Common Projects Allocation: 47.9% to Market Redesign; 52.1% to Technology Upgrade

<sup>\*\*\*\*</sup> Increase/decrease of baseline results from weekly reevaluation of projects

#### **ATTACHMENT B**



Attachment B - FERC Status Report - November 2007

# MRTU Readiness Program Summary FERC Update

November 1, 2007



## **MRTU Readiness Program Executive Summary**

This summary represents a status of the MRTU Readiness program that focuses on activities to ensure that the people, processes, and technologies for both CAISO and the Participants are ready for the implementation of the MRTU program on March 31, 08. For the month of October, the MRTU Readiness Program continues to make progress in the following areas:

- Distributed Follow-up action item resolutions to Participants
- Conducted October Touchpoints with Participants
- Completion of Integrated Market Simulation Release 3
- Continued conducting ongoing Market Participant Meetings such as PRAG, Technical Workshops, IMS (de) briefing calls
- Planning and scheduling for Final Readiness Assessments with Participants underway
- Completed Session 11 (of 12) Level 200 Market Participant Training
- Conducting weekly progress reporting and tracking for Internal Readiness with all core and non-core Business Units
- Completed all 17 out of 17 Phase 2 Process Walkthrough sessions across Business Units. Launched Phase 3 Process Walkthrough sessions.
- Completed approximately 93% of mandatory training for CAISO staff (Level 100, 200, and 300) MRTU Training.



#### **MRTU Readiness Overview**

#### **Internal Readiness**

<b>Current Period</b>	Trend
Y	

- Due to testing and transition activities, some Business Units remain not on track.
   Impacted Business Units, Program Management, and Testing team are working closely to identify mitigating actions to complete Business Unit readiness activities on time.
- Internal Technical Training continues to be conducted. Operator Role-Based Training continues to be developed.
- Final Business Unit Assessment criteria has been developed.

	Complete
	No Delays
<u> </u>	Delay, but will not impact 3/31/08 go-live date. Contingency maintained, but at risk
	Delay, will impact program delivery and 3/31/08 Go-Live Date. Use of contingency funds

#### **External Readiness**

<b>Current Period</b>	Trend
Y	

- More detailed readiness scenarios have been developed within the Market Simulation scope.
- Participant Check Points/Follow Ups planned throughout Market Simulation.
- Additional Settlements training has been developed and scheduled for November.
- Bid-to-Bill training scheduled for November.
- Participants have participated in IMS-R3 and been involved in planning sessions for Update 1.



## **Next Steps**

#### The following list summarizes the remaining activities to be completed:

- Complete planning and scheduling for Final Readiness Assessments to be conducted with Participants in December/January
- Continue Touch Points with Participants throughout Market Simulation
- Continue to work with CAISO's Internal Business Owners to develop detailed readiness status, deliverables, and actions to prepare for the next major readiness milestone (Implementation Phase)
- Complete Phase 3 of MRTU Process Walkthroughs for 15 end to end Processes
- Conduct Settlements Charge Code Workshop and Bid to Bill Training for Market Participants in November.

#### **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 5<sup>th</sup> day of November 2007.

/s/ Susan Montana Susan Montana