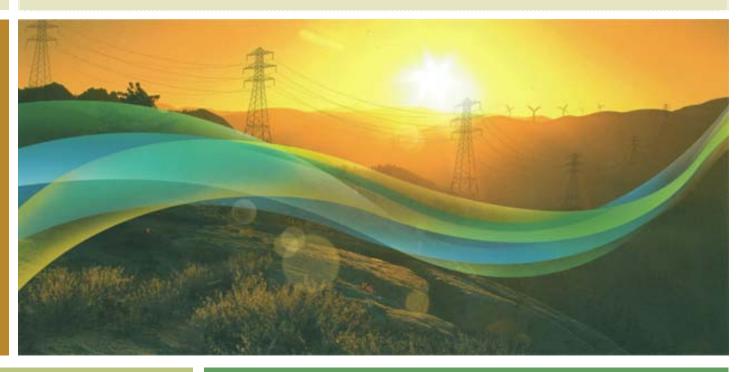
Market Redesign and Technology Upgrade Budget and Schedule Report



Executive Sponsor: Charles A. King, PE

Project Manager: Debi Le Vine



Board of Governors Meeting October 17, 2007 General Session



MRTU Executive Summary

California Independent System Operator Corporation

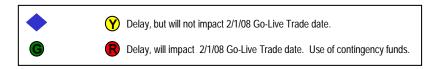
| MRTU Schedule | | | | | | | | |
|--|---------|--|--|--|--|--|--|--|
| Current Period | Trend | | | | | | | |
| G | | | | | | | | |
| Tracking Delay: 0 weeks Critical Path Items: Vendor Delivery, Integration Testing, Market Simulation Schedule *Based on approved 4/1/08 Go-Live Trade date | | | | | | | | |

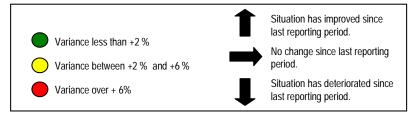
| • | Integration testing team completed Functional Integration, End to |
|---|---|
| | End, Load and Performance and Security testing for IMS |
| | Release 3. |

- Integrated Market Simulation Release 3 started on Monday 9/24.
- Update 1 is targeted to start on 11/5 and Update 2 on 12/17.
- Implementation Workshop and Settlements Walkthrough held on Thursday 9/20. Detailed Settlements charge code training held on 9/21
- Internal and External training, including Bid to Bill, continues in October.

| 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 evaluating impacts of new Market Simulation schedule and new MRTU Go-Live date.



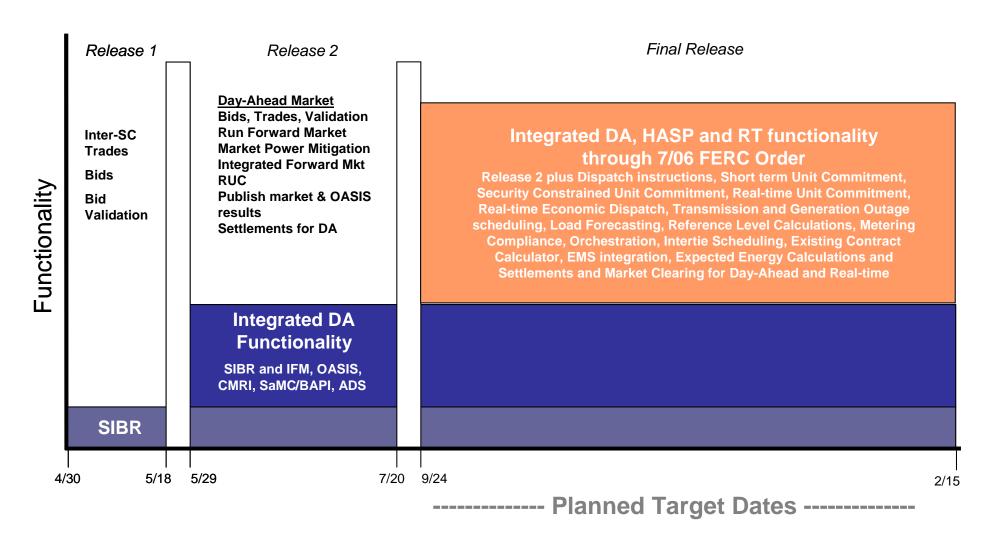




- The Integrated Market Simulation (IMS) Release 3 began on 9/24. Other IMS activities included: prepared and posted the guiding documents for IMS Release 3, updated the guidebook for the release, held an implementation workshop, and held a charge code walkthrough. The focus is now on preparation for IMS Update 1, updating the issues as a result of the FIT and End to End testing, and finalizing the scenarios for Market Simulation. The target start date for Update 1 is November 5, 2007.
- The Readiness team completed and finished scoring 79 of 81 Participant Assessments. They also began distributing Action Plan Letters to the market participants (57 currently distributed) and created the Build Phase assessment summary report. The Training team continued working on various Computer Based Trainings (SLIC, OASIS, ADS in final review), Internal Bid-to-Bill and training development. Several external training sessions have been scheduled including a Settlements Charge Code and How to Read a Settlement Statement and Validating Across Applications and Bid to Bill Training.
- The Testing team continues to run Day Ahead and Real Time Markets for execution of Update 1 Functional Integration Testing and End to End Testing.



IMS Scope and Schedule





Accomplishments & Milestones

SaMC

- Completed P2 configuration and market clearing FAT
- Continuing work on P3 charge codes and resolving issues

Integrated Forward Markets/Real-Time Nodal

- IFM: SAT build for CR3C/CR4 Bundle 1 received, Bundle 1A FAT beginning
- CR3B continued FIT/ E2E testing, achieved improvement in stability of continuous runs of RT in Folsom FIT, completed CR3B SAT

Market Quality Systems

V2.0 SAT exit approved

Congestion Revenue Rights

Project Completed; First production market closed on 9/14

MFRD

- Created CSV files from DB19 for RDT generation
- Delivered MF Resource Data Templates to Market Participants
- Completed all required changes to MF to support IRR testing

MDS

- Release 1 (Orchestration) completed and handed to FIT team
- Release 2 (Notifications) development underway

Testing

- Began IMS Release 3 Market Simulation
- Began IMS Update 1 testing
- L&P completed MQS performance testing
- Fix it continued work on OASIS, CMRI, and Integration

Full Network Model/State Estimator

- Continued development of DB19 and DB21
- Executed IFM and RT Analysis cases

Legacy

Completed formal exit from SAT for majority of Legacy applications

Planned Activities

SaMC

- Market Clearing SAT testing
- Finalize P3 design, build P3 Test Cases and complete P3 SAT
- Update requirements for the IMS Update 1

Integrated Forward Markets/Real-Time Nodal

- CR3C/CR4 Bundle 1: Complete SAT
- CR3C/CR4 Bundle 1A: Begin FAT

Market Quality Systems

V2.0 Support CR4 Web Service Factory Integration testing

Testing

- Market Simulation: Support IMS R3
- Begin ETE testing for Update 1
- Continue L&P profiling for IFM, Integration Bus, SaMC, PTR for Market Simulations
- Continue Bid to Bill validation of P1 and P2 charge codes

Full Network Model/State Estimator

- Complete development and testing of DB19 NPTO style ECA/ACA modeling
- Begin closeout of gap issues identified in Readiness walkthrough



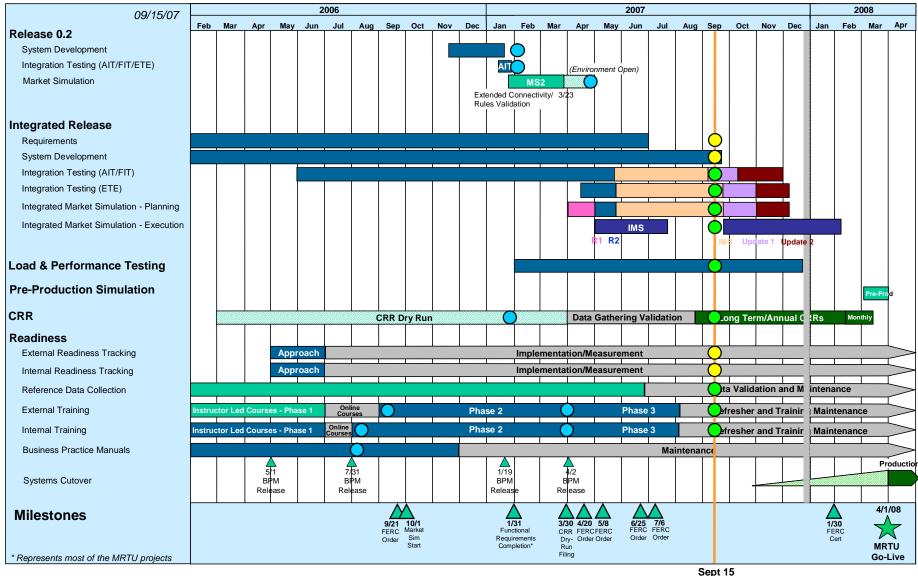
MRTU Program Progress as of September 24, 2007

| Program Area | Design | Build | Test | Integration Test | End-to-End | Market | Deployment |
|---|--------|------------|---|--------------------|------------|--|------------|
| Phase 1A | | | | | | | |
| Phase 1B | | | | | | | |
| Market Systems | | | | | | | |
| Real-Time Market | | | | | | X///////////////////////////////////// | |
| Integrated Forward Market | | | | | | | |
| Hour-Ahead Processor | | | | | | | |
| Residual Unit Com. | | | | | | | |
| Scheduling | | | | | | | |
| Policy Must-Haves | | | X///////////////////////////////////// | | | | |
| FERC Changes - Market Systems | | | X //////////////////////////////////// | | | | |
| Settlements | | | | | | | |
| Base Product | | | | | | | |
| Charge Types | | | | | | | |
| Congestion Revenue Rights | | | | | | | |
| FERC Changes - Settlements/CRRs | | | X///////////////////////////////////// | | | | |
| 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 | | Supporting | Progr | am Area | Planning | Development | Execution |
| Phase not started | | Activities | Internal Readiness | | | | |
| Phase in progress | | | External Reading | ess | | | |
| Phase complete | | | Training | | | | |
| | | | Business Proces | ses (Phases 1 & 2) | | | |
| | | | BPMs | • | | | |



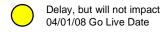
MRTU High-Level Timeline

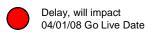
California Independent System Operator Corporation





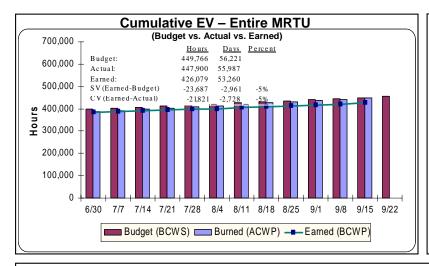




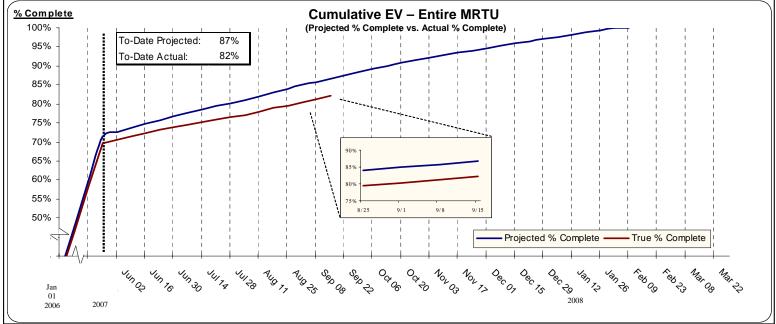


Program Key Metrics

California Independent System Operator Corporation



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



Included in Graphs: BPM, Business Process, SIBR, Training, FNM/SE, IFM, MQS, CRR, Mkt Cert, MDS, MFRD, SaMC, Portal, Testing, Integration, PTR, PMO, Legacy, STING, Readiness, and Technical Architecture. Not Included in Graphs: n/a



MRTU Financials

California Independent System Operator Corporation

California Independent System Operator Summary of Expected Completion Costs vs. December, 2006 Budget August 31, 2007 (In Thousands) *

| | | | e-baselined ect Costs Dec. 2006 | | ough 2006 | ٦ | d Invoices To Date 8/31/07 | Co Cor | mplete | at C | of Project | (Dec | |
|--------|---|----------|---------------------------------------|----|---------------|----|----------------------------------|-----------|-------------|------|---------------|------|--------|
| | Project Market Barbarian | ٦, | (a)** | • | (b) | • | (c) | | (d) | | e)=(c+d) | | =(e-a) |
| | Market Redesign | \$ | 64,807 | \$ | 49,990 | \$ | 56,211 | \$ | 8,671 | \$ | 64,882 | \$ | 75 |
| 1 2 | Automatic Mitigation Procedures/Phase 1A Real Time Markets/Phase 1B | | 773 16,297 | | 773 16,297 | | 773 16,297 | | 0 | | 773 16,297 | | 0 0 |
| 3 | Integrated Forward Markets/Real -Time Market (IFM/RTM) | | 33,372 | | 23,673 | | 27,729 | | 5,643 | | 33,372 | | 0 |
| 4 | Congestion Revenue Rights (CRR) | | 4,516 | | 3,986 | | 4,543 | | 3,043 48 | | 4,591 | | 75 |
| 4A | Market Quality System (MQS) | | 6,261 | | 2,315 | | 3,923 | | 2,338 | | 6,261 | | 0 |
| 11A | Hardware & Software Purchases | | 3,588 | | 2,947 | | 2,947 | | 642 | | 3,588 | | 0 |
| | Tidianalo a collinalo i di cilaccio | | | | · | | | | 0 1.2 | | | | |
| | Technology Upgrade | \$ | 74,179 | \$ | 61,020 | \$ | 68,289 | | 5,302 | \$ | 73,590 | \$ | (589) |
| 5 | Scheduling Infrastructure Business Rules (SIBR) | | 13,323 | | 9,727 | | 10,538 | | 2,785 | | 13,323 | | 0 |
| 6 | Settlements and Market Clearing (SaMC) | | 18,030 | | 16,170 | | 17,628 | | 402 | | 18,030 | | 0 |
| 6 | Master File (MFRD) | | 2,300 | | 2,291 | | 2,359 | | 0 | | 2,359 | | 59 |
| 9 | Post Transactional Repository (PTR) - CMRI | | 2,461 | | 2,236 | | 2,710 | | 0 | | 2,710 | | 248 |
| 10 | Legacy Systems | | 7,785 | | 6,379 | | 7,077 | | 0 | | 7,077 | | (707) |
| 10A | State Estimator/Full Network Model | | 1,345 | | 1,040 | | 1,170 | | 0 | | 1,170 | | (175) |
| 11 | Technology Infrastructure/ Portal | | 2,065 | | 2,050 | | 2,051 | | 0 | | 2,051 | | (14) |
| 11B | Hardware & Software Purchases | | 6,923 | | 5,197 | | 6,227 | | 697 | | 6,923 | | 0 |
| 12A | System Integration/Enterprise Architecture | | 17,989 | | 15,540 | | 17,456 | | 533 | | 17,989 | | 0 |
| 12B | Technology Architecture | | 1,957 | | 389 | | 1,072 | | 885 | | 1,957 | | 0 |
| | Common Projects *** | \$ | 41,214 | \$ | 25,738 | \$ | 36,524 | | 4,690 | \$ | 41,214 | \$ | |
| 13 | Training/Readiness Projects | <u> </u> | 9,709 | Ψ. | 6,975 | - | 9,519 | | 190 | 7 | 9,709 | · · | 0 |
| 14A | Project Management | | 17,666 | | 11,907 | | 13,813 | | 3,853 | | 17,666 | | 0 |
| 14B | Testing | | 13,840 | | 6,856 | | 13,193 | | 647 | | 13,840 | | 0 |
| | | _ | | | | | | | | | | | |
| | Ongoing Scope Adjustments | \$ | 1,523 | \$ | - | \$ | - | \$ | 2,036 | \$ | 2,036 | \$ | 513 |
| | Pending MRTU Scope Changes | | 1,523 | | 0 | 1 | 0 | | 2,036 | | 2,036 | | 513 |
| | Contingency | \$ | 7,500 | \$ | - | \$ | - | \$ | 7,500 | \$ | 7,500 | \$ | |
| 15 | Program Contingency | | 7,500 | | 0 | | 0 | | 7,500 | | 7,500 | | 0 |
| | Total MRTU Project | \$ | 189,223 | \$ | 136,748 | \$ | 161,024 | \$ | 28,198 | \$ | 189,223 | \$ | (0) |

^{*} Columns and rows may not total due to rounding.

^{**} Budgets include: Consultant Labor, Vendor Costs, Travel & Meals Expenses, Training, Hardware, Software, Maintenance, Employee Backfill costs

^{***} Common Projects Allocation: 47.9% to Market Redesign; 52.1% to Technology Upgrade