



Nodal Program Update

Jason Iacobucci
Nodal Program Manager

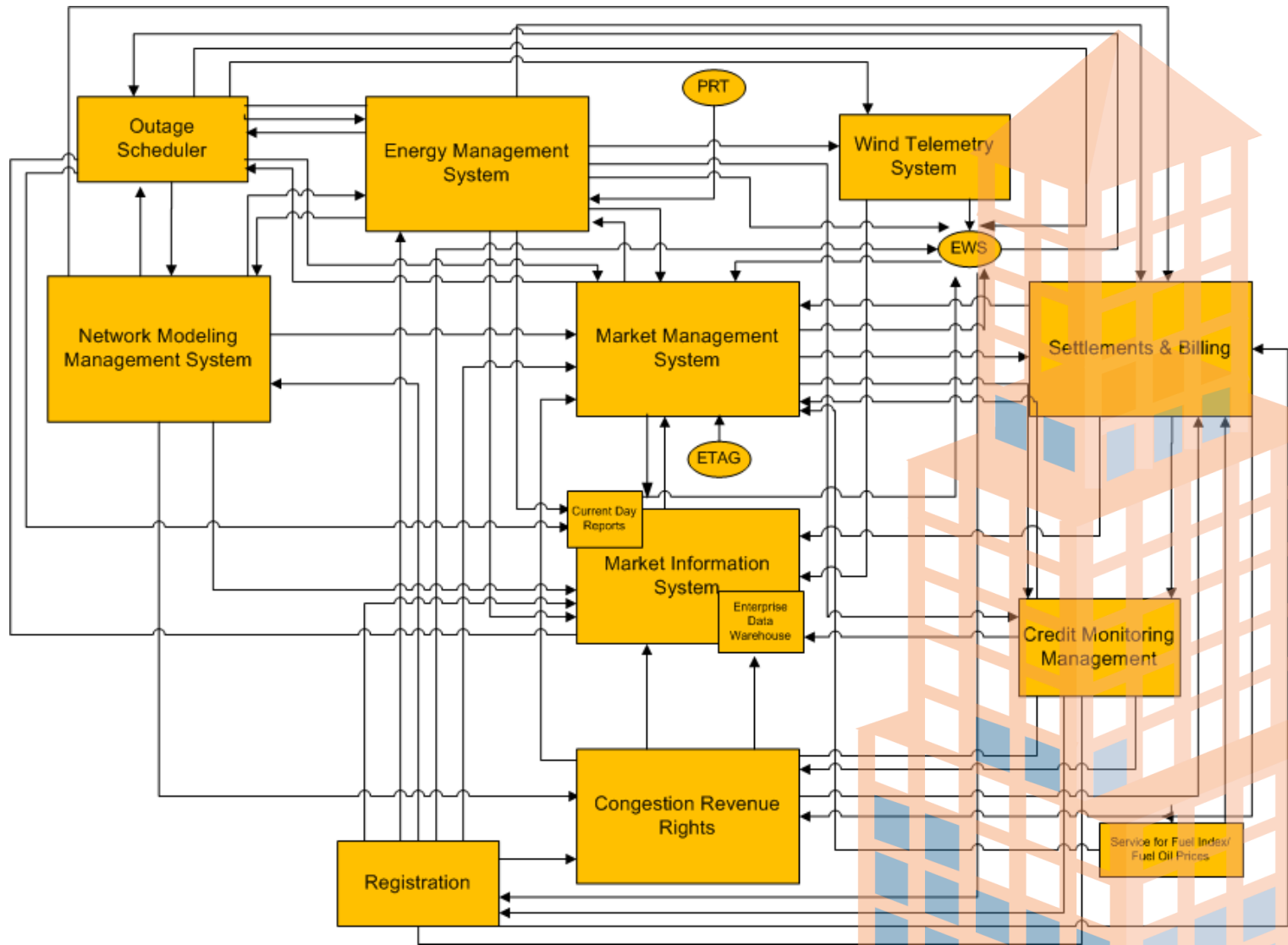
Special Nodal Program Committee

19 October 2009

Today's Agenda

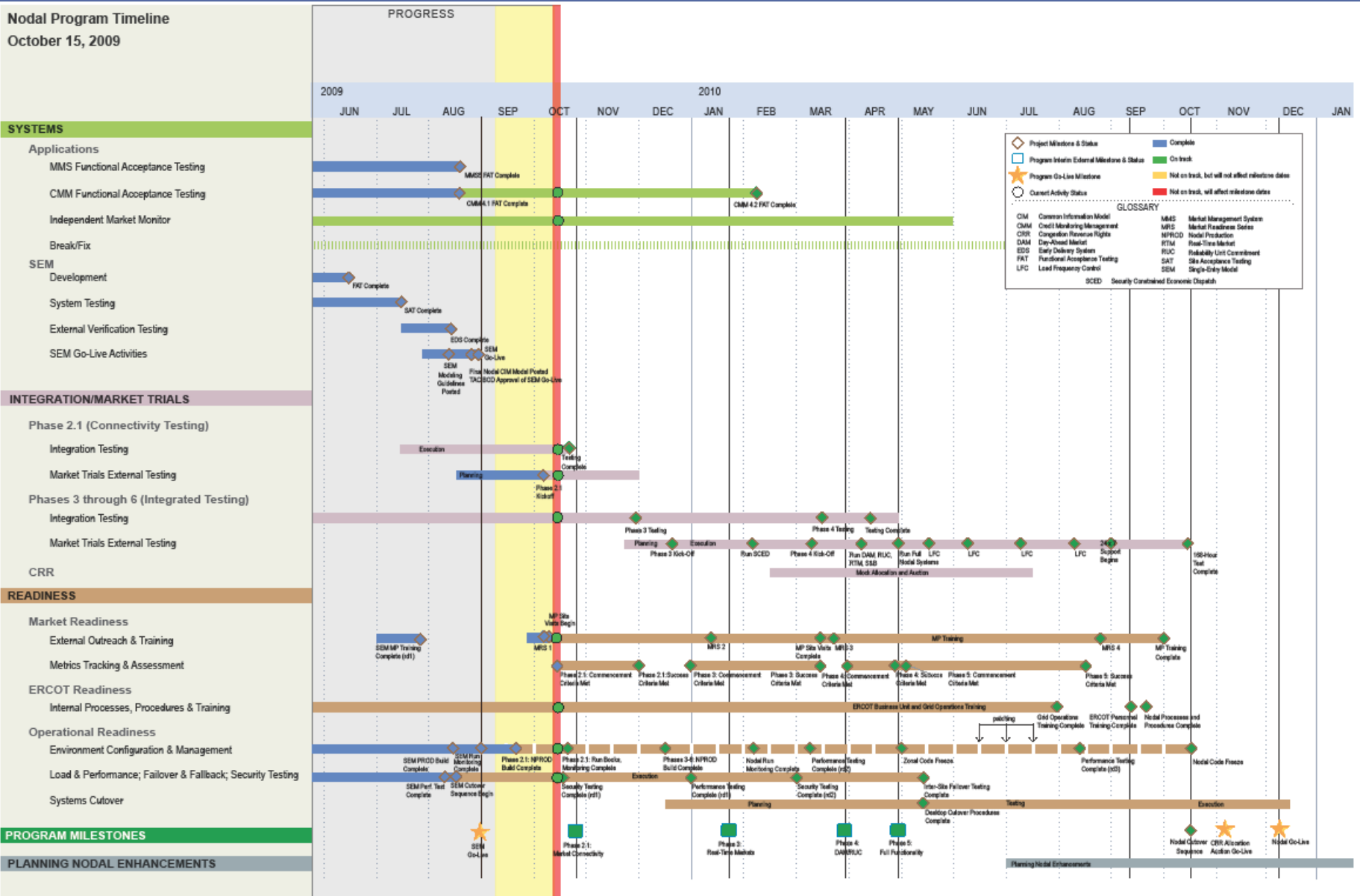
- **Program Status**
- **Traceability**
- **Market Readiness**
- **Financials**
- **Appendix**

Nodal Systems Blueprint



Nodal Timeline

Nodal Program Timeline
October 15, 2009



■ Program Milestone: Phase 2.1 Market Connectivity

◆ Included the following project milestones

- Readiness/Market Readiness/External Outreach & Training
 - Market Readiness Seminar Oct. 8 (approx. 140 MPs)
 - MP site visits began Oct. 9 with LCRA; first of 35 visits
 - Phase 2.1 Market Connectivity Handbook posted Oct. 2
- Market Trials/Phase 2.1 Connectivity Testing/MT External Testing
 - Phase 2.1 kickoff Oct. 8
- Readiness/Market Readiness/Metrics Tracking & Assessment
 - Phase 2.1 Commencement Criteria met (environment built and validated)

◆ Project Milestones

- Readiness/Operational Readiness/Environment Configuration & Management
 - Phase 2.1 NPROD build complete
 - Hardware installed, baseline code set on schedule; final build scheduled Oct. 16

Current Milestones: Detailed Status (10-12-09)

■ Program Milestones

- Phase 2.1: Market Connectivity

◆ Project Milestones (October look-ahead)

Project Milestone	Status	Detail
Integration/ Phase 2.1 Connectivity Testing/ Integration Testing	<ul style="list-style-type: none">• On target	<ul style="list-style-type: none">• MMS UI: initial test cycle 100% complete• MMS EWS: initial test cycle 100% complete• 17 open defects (no Sev 1s) in regression test: 92% complete
Readiness/ Operational Readiness/ Environment Configuration & Management	<ul style="list-style-type: none">• On target.	<ul style="list-style-type: none">• Phase 2.1 run books, monitoring
Readiness/ Operational Readiness/ Security Testing	<ul style="list-style-type: none">• On target.	<ul style="list-style-type: none">• Performance testing: 50% NPROD, 100% iTest (web service stability and loading, UI stability and loading)

Future Program Milestones

Phase	When	Scope	Status
2.1: Market Connectivity	Oct. 28	<ul style="list-style-type: none"> • MP interface testing (API, Market Manager UI) • Market System Rules Validation (Phase 1) 	<ul style="list-style-type: none"> • On track • Migrated 2.1 software into Nodal Production environment • Functional regression and final performance testing under way
3: Real-Time Markets	Mid January-Early February	<ul style="list-style-type: none"> • MMS-SCED execution • SCED results, report publishing • CRR auction execution (CRR UI) • OS submissions (API, OS UI) 	<ul style="list-style-type: none"> • Planning complete • Integrated testing under way (CRR, OS, SCED) • Running Real-Time operating scenarios twice weekly
4: DAM/RUC	Late March-Early April	<ul style="list-style-type: none"> • MMS-DAM, DRUC, HRUC, SCED execution • Market results, report publishing • Initial S&B execution • Outage, CRR integration 	<ul style="list-style-type: none"> • Planning in progress • Integrated testing under way • Executing DAM mechanics
5: Full Functionality	Late April-Early May	<ul style="list-style-type: none"> • Run full nodal systems 	<ul style="list-style-type: none"> • Planning in progress • Internal DST test scheduled Nov. 1

Phase 2.1 Market Connectivity Defect Update

Project	Sub-Project	Status	Open Critical Defects Sept. 30/Oct. 15				
MMS	Core Application	<ul style="list-style-type: none"> MMS Release 5 with several patches currently being used for Market Connectivity testing. A portion of the outstanding defects have been fixed in a patch that is currently in the MMS FAT environment, with testing underway. Once that testing is complete, the patch will be migrated to iTest; remaining defects have been logged with the vendor and are being worked into an upcoming patch. 	MMS5				
			Sev 1s	0	0		
			Sev 2s	2	2		
			Sev 3s (P1/P2)	17*	16*		
MMS	Market Manager UI	<ul style="list-style-type: none"> Market Manager UI release 1.16.1 with additional patches currently being used for Market Connectivity testing. All outstanding defects have been logged with the in-house development team; development/testing/deployment cycles to address critical defects are in progress. 	MMS MM UI 1.16.1				
			Sev 1s	0	0		
			Sev 2s	3	2		
			Sev 3s	5*	1*		
			Sev 4s	3*	1*		
			Sev 5s (P1/P2)	2*	1*		
EIP	EWS-MMS Interface	<ul style="list-style-type: none"> EIP external Web Services spec release 1.19 with several patches currently being used for Market Connectivity testing. All outstanding defects have been logged with the in-house development team; development/testing/deployment cycles to address critical defects are in progress. 	EIP 1.19				
			Sev 1s	0	0		
			Sev 2s (P1/P2)	2	2		

* Sev 3s, 4s and 5s are priority 1 or 2 (must fixes); see following slide for more explanation.

Defect Definitions

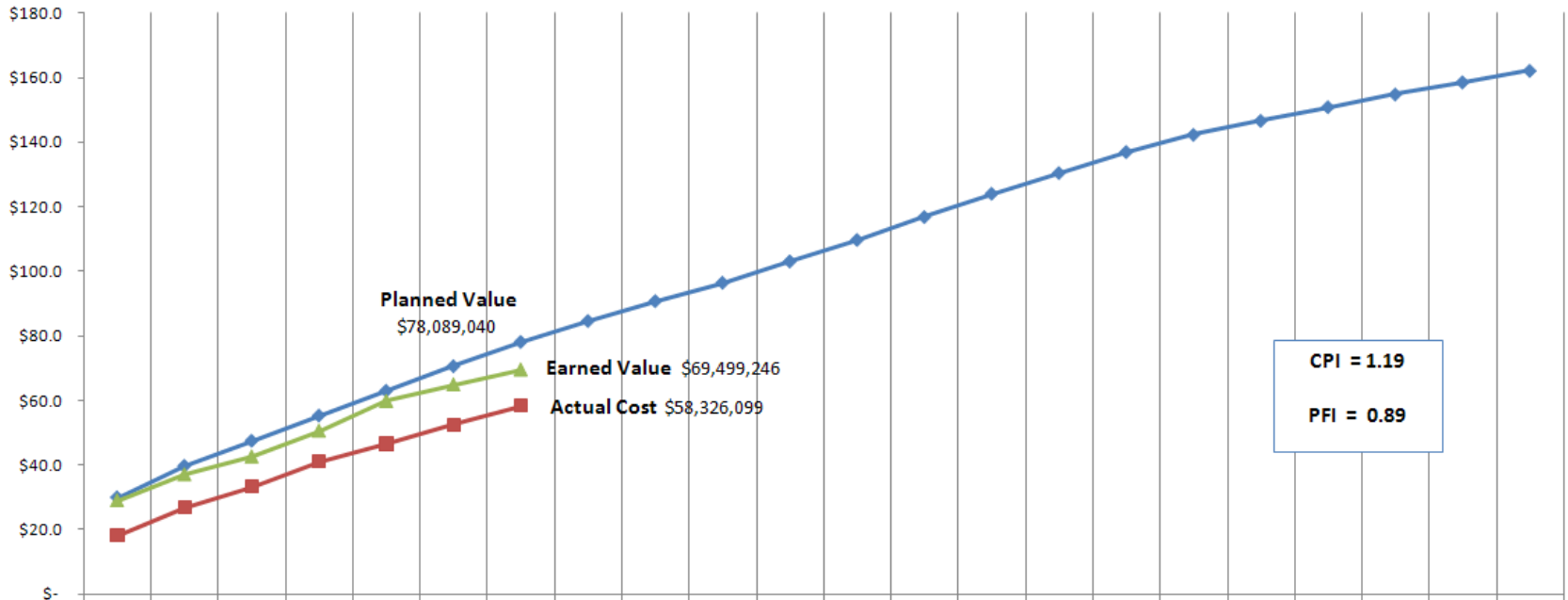
Severity	Definition
Severity 1: Data loss/critical error	Defects that render unavailable the critical functions of the system under test. These include errors such as system errors, application failures, loss of data, incorrect calculations, inability to transfer data, failure to access database, and inability to display information to the user.
Severity 2: Loss of functionality w/o workaround	Defects that render unavailable partial functionality of the system under test with no workaround available. These include errors such as incorrect information displayed to the user, information not updating correctly, extracts failing, and missing export files.
Severity 3: Loss of functionality with workaround	Defects that render unavailable partial functionality of the system under test with a workaround available. These include errors such as incorrect message displayed, optional information missing or not displayed correctly, not receiving e-mail notifications, and incorrect defaults.
Severity 4: Partial loss of a feature set	Defects that affect a feature that is not executed on a frequent basis and there is not a significant impact on the system. These include errors such as help information, filtering, and consistent naming.
Severity 5: Cosmetic/documentation error	Defects that are cosmetic and need to be resolved, but are not a factor in the functionality or stability of the system. These include errors such as field alignment, report formatting, drop down list order, fonts, column order and documentation that is inconsistent with the system(s) as tested.

	Prescription in Quality Center
Priority 1	Must fix ASAP
Priority 2	Must fix prior to Go-Live
Priority 3	Not critical to fix before Go-Live
Priority 4	Minor system/user impact
Priority 5	No system/user impact

Earned Value for the Nodal Program from March - September

Nodal Program

Chart only uses the values associated with the Internal Labor Costs, External Resource Costs, Administrative & Employee Expenses, Vendor and Backfill



	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10
Planned Value	\$29.8	\$39.6	\$47.4	\$55.2	\$62.9	\$70.6	\$78.1	\$84.6	\$90.7	\$96.4	\$103.1	\$109.7	\$116.8	\$124.1	\$130.5	\$137.0	\$142.3	\$146.7	\$150.9	\$154.9	\$158.6	\$162.2
Earned Value	\$29.0	\$37.0	\$42.6	\$50.6	\$59.8	\$64.9	\$69.5															
Actual Cost	\$18.1	\$26.7	\$33.3	\$41.0	\$46.5	\$52.5	\$58.3															

NOTE: Amounts in Millions

Nodal Program Risks & Issues

Risk/Issue	Target	Status
<p>Integration Testing <i>Continued risk around technology delivery of business systems integration due to complexity and continuing maturing of application and data dependencies.</i></p>	<p>May 2010</p>	<ul style="list-style-type: none"> • On track. • Test phase planning, associated work plan complete. • Execution of work plan, with specific focus on October Market Trials functionality, under way. • Daily meetings being held.
<p>Reconciling Protocols, Systems and Market Expectations <i>Experience by other ISOs in deploying nodal markets has shown that expectations of the market participants are often missed, despite best efforts at defining tariffs or protocol requirements. ERCOT needs to assume such a risk exists for this nodal implementation as well.</i></p>	<p>12/15/09</p>	<ul style="list-style-type: none"> • On track; work underway to trace protocols, requirements and business processes alignment analyses are in progress. • SMEs added to the team in May.
<p>Data Center Expansion Capacity Concerns <i>Data center capacity, space and power may be inadequate for Nodal Go-Live, unless plans for expansion are adequate.</i></p>	<p>11/01/09</p>	<ul style="list-style-type: none"> • Nearing completion; all but one server migration has been successfully completed. • Taylor expansion/risk-mitigation steps for Met facility provide sufficient space for Go-Live.
<p>Internet Explorer Upgrade <i>Nodal Integration testing for the Market Participant (MP) User Interfaces and MIS reporting is using Internet Explorer (IE) version 6. MPs have requested ERCOT support a newer version: IE7 (IE8 is also available). If the nodal market-facing application requires certification against other IE versions, there will be internal and external costs associated with re-testing and updating the UIs.</i></p>	<p>10/30/09</p>	<ul style="list-style-type: none"> • On track. • ERCOT Enterprise Architecture team currently working on estimates to conduct impact analysis and develop options. • Zonal analysis complete, corporate analysis 70% complete.
<p>Market Interaction Operating Level Agreements (OLAs) <i>Need to determine operating level agreements associated with market interactions to assist ERCOT in establishing operational thresholds. ERCOT is responsible for ensuring any market thresholds required before Go-Live are defined, managed through the appropriate stakeholder processes and communicated in a timely fashion.</i></p>	<p>April/May 2010</p>	<ul style="list-style-type: none"> • On track. • Phase 2.1 OLAs established and communicated to the market during Oct. 8 Market Readiness Seminar.

External Audit Status Summary

Audit	Audit Points Identified	Audit Points in Execution	Date to Complete Last Point
IBM Report 7	4	1	12/31/09
Utilicast Report 8	6	1 in progress	2011
Utilicast Report 10 (Morgan)	9	9 complete	
Utilicast Report 10 (Cleary)	12	2 in progress; 10 complete	12/15/09
Utilicast Report 10 (Capezzuti)	1	1 in progress	9/17/09



Traceability

Betty Day
Program Control & Review

Special Nodal Program Committee
19 October 2009

Protocol Traceability Effort Update

Tier 1 Sections				
	Definition	SME Analysis/Validation	Begin Reviews w/Business	Target for NATF reports
Section 7	Congestion Revenue Rights	90%	In progress	Oct
Section 8	Performance Monitoring	75%	In progress	Dec (revised)
Section 3	Management Activities for the ERCOT system	70%	In progress	Nov
Section 4	Day Ahead Operations	80%	In Progress	Nov
Section 5	Transmission Security Analysis and RUC	70%	In Progress	Nov
Section 9	Settlement & Billing	70%	In Progress	Nov
Section 6	Adjustment Period and Real-Time Operations	65%	10/20	Dec
Section 17	Market Monitoring & Data Collection	50%	10/22	Dec
Section 16.11	Financial Security for Counter-Parties	65%	10/27	Dec

Tier 2 (Moderate Impact): 10, 11, 12, 13, 20, 22 (Dec. '09 completion target)

Tier 3 (Low Impact): 1, 2, 14, 15, 18, 19, 21, 23, 24 (Dec. '09 completion target)

Protocol Traceability Effort Update

Tier 1 Sections				
	PTE Traced Items	PTE Research Items (All)	Business Research Items	PTE Alignment Items
Section 7 – Congestion Revenue Rights	481	30	28	1
Section 8 – Performance Monitoring	204	88	85	TBD
Section 3 – Management Activities for the ERCOT system	905	262	256	TBD
Section 4 – Day Ahead Operations	640	127	118	TBD
Section 5 – Transmission Security Analysis and RUC	161	27	27	TBD
Section 9 – Settlement & Billing	411	7	1	TBD
Section 6 – Adjustment Period and Real-Time Operations	920	169	164	TBD
Section 17 – Market Monitoring & Data Collection	25	0	0	TBD
Section 16.11 – Financial Security for Counter Parties	203	75	67	TBD
Total	3,950	785	476	TBD

Protocol Traceability Effort Update

Tier 1 Sections				
	PTE Traced Items	PTE Full Trace Report	PTE Research Items	PTE Alignment Items
Section 7 – Congestion Revenue Rights	481	Will post for Oct NATF	30	1
Section 3 – Management Activities for the ERCOT system	905	Will post for Nov NATF	262	TBD
Section 8 – Performance Monitoring	204	Will post for Dec NATF	88	TBD

Details	
	Overview of PTE Alignment Items
Section 7 – Congestion Revenue Rights	Alignment – 1. CRR Handbook – assigned, due 12/31/09
Section 3 – Management Activities for the ERCOT system	Research items in progress
Section 8 – Performance Monitoring	Research items in progress



Market Readiness

Vikki Gates
Readiness & Transformation

Special Nodal Program Committee

19 October 2009

ERCOT Readiness: Process and Procedures

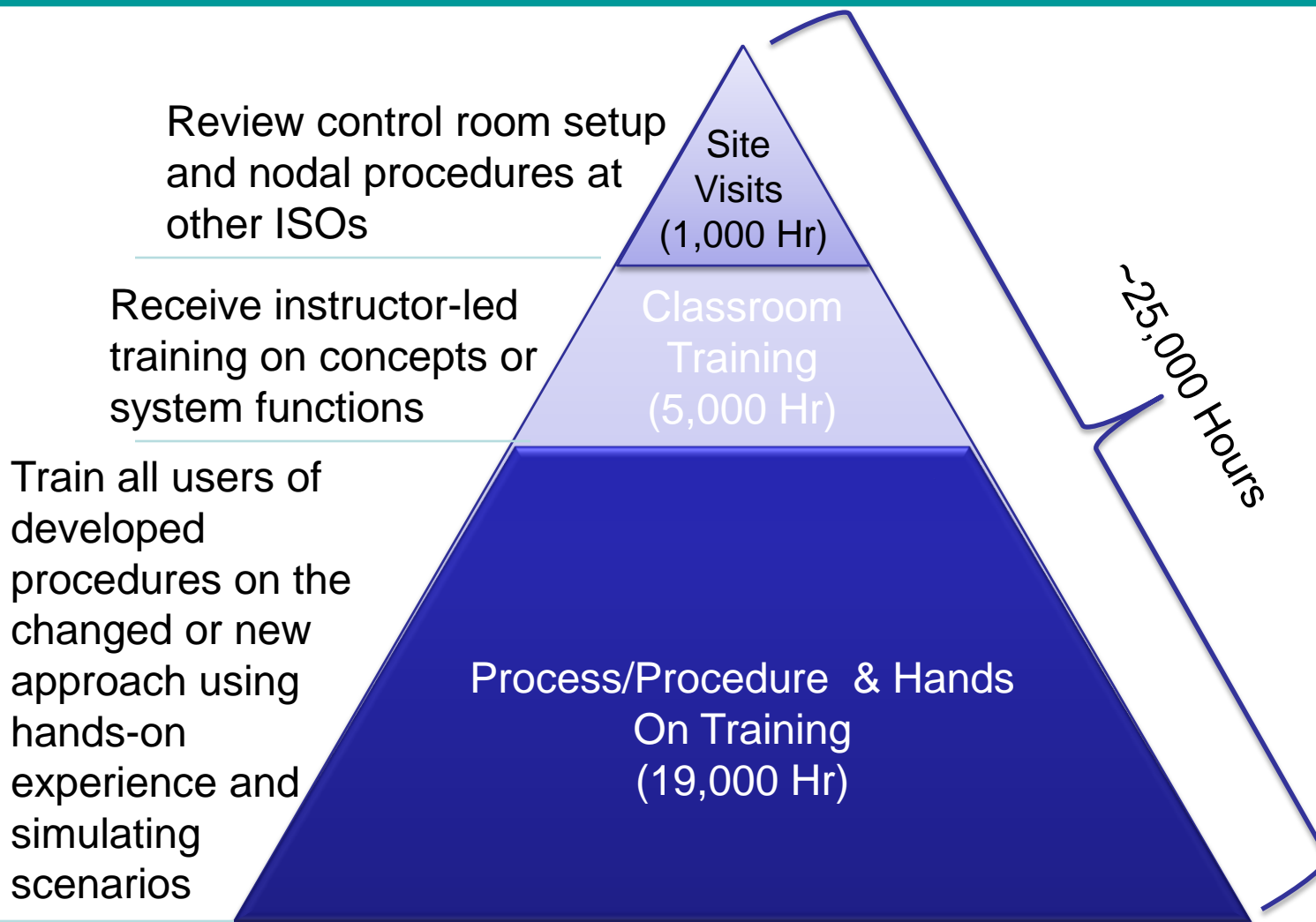
◆ Process & Procedures

- Levels are defined with increasing detail

	Process Level	Description	Example	# *
Level 1	Conceptual Level	Core Business Processes	Operate Power Systems & Markets	5
Level 2	Process Identification Level	Functional Breakout of Core Processes	Operate RT Power Systems	21
Level 3	Implementation Level	Depiction of Discrete Business Processes	Balance Load and Generation	111
	Procedure Level	Procedures	Monitor & Control Time Error Correction	429
				566

* Numbers subject to change and development of process and procedures continues

ERCOT Readiness: Internal Training Effort & Training Items

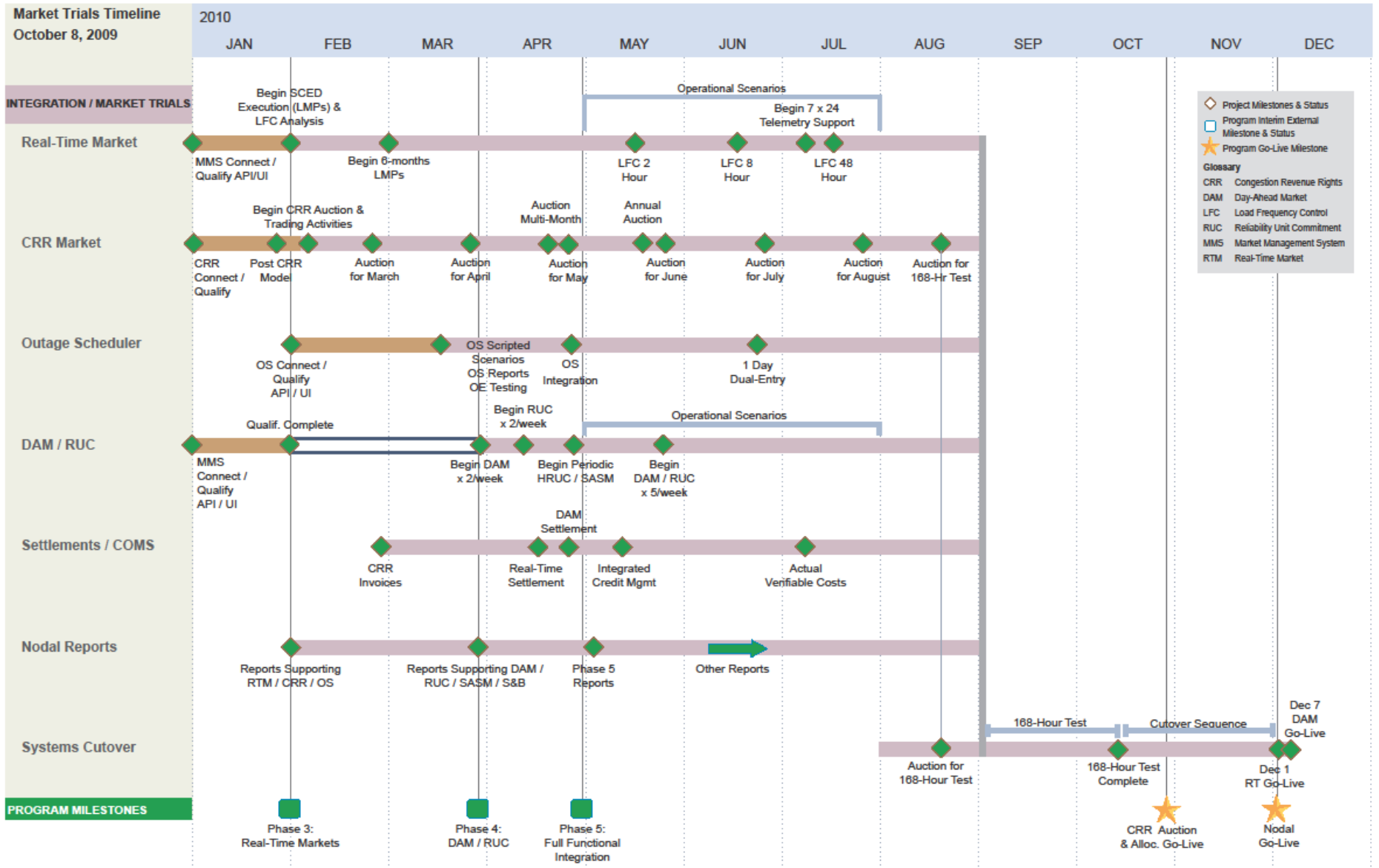


* Additional Hands-On Training received through testing (e.g. Market Trials) in separate project scope

Participant Readiness Touch Points

2009/2010				
	October	November	December	January
Meetings	<ul style="list-style-type: none"> • NATF 10/13 • NATF 10/27 		<ul style="list-style-type: none"> • NATF 12/8 	<ul style="list-style-type: none"> • NATF tbd
Training	<ul style="list-style-type: none"> • Nodal 101 • LSE 201 • Generation 101 • Basic Training: http://nodal.ercot.com/training/index.html 	<ul style="list-style-type: none"> • Nodal 101 • LSE 201 • Generation 101, 201 • Economics of LMP • Transmission 101 ◆ Settlement Workshop 	<ul style="list-style-type: none"> • Nodal 101 • LSE 201 • Generation 101, 201 • Basic Training • Economics of LMP • Transmission 101 ◆ Settlement Workshop 	<ul style="list-style-type: none"> • Nodal 101 • LSE 201 • Generation 101, 201 • CRR – online ◆ Settlement Workshop
Outreach	<ul style="list-style-type: none"> ◆ Readiness Center • Limited ERCOT metrics • 5 site visits 	<ul style="list-style-type: none"> • Additional ERCOT & MP metrics • 6 site visits 	<ul style="list-style-type: none"> • 3 site visits 	<ul style="list-style-type: none"> • 8 site visits • Initiate Phase 3 metrics
Market trials	<ul style="list-style-type: none"> • Bi-weekly calls ◆ 2010 Market Trials Roadmap: Oct. 8 ◆ Technical Workshop: Oct. 28 ■ Market Connectivity open to MPs Oct. 28 	<ul style="list-style-type: none"> • Bi-weekly calls • Voluntary MP connectivity testing 	<ul style="list-style-type: none"> • Bi-weekly calls • Voluntary MP connectivity testing 	<ul style="list-style-type: none"> • Start weekly calls • MP re-qualification begins
			<ul style="list-style-type: none"> ◆ MP Handbooks <ul style="list-style-type: none"> • SCED/LFC • CRR 	<ul style="list-style-type: none"> • DAM/RUC • Outage Scheduler • COMS

Market Trials Roadmap



Legend

- ◇ Project Milestones & Status
- Program Interim External Milestone & Status
- ★ Program Go-Live Milestone

Glossary



















- CRR Congestion Revenue Rights
- DAM Day-Ahead Market
- LFC Load Frequency Control
- RUC Reliability Unit Commitment
- MMS Market Management System
- RTM Real-Time Market



Readiness Touch points



	Timing	Method	
Stakeholder meetings	<ul style="list-style-type: none"> Scheduled meetings Topic based workshops 	<ul style="list-style-type: none"> TAC NATF Multiple working groups 	
Market training	<ul style="list-style-type: none"> Ongoing – November 2010 	<ul style="list-style-type: none"> Curriculum courses cycle every 6-8 weeks Several as needed workshops in development Many courses available through online Learning Management System 	
Outreach	Scheduled site visits	<ul style="list-style-type: none"> September 2009 – March 2010 	<ul style="list-style-type: none"> MP-selected content Technical and Functional expertise delivered to site visits
	Standby site visits	<ul style="list-style-type: none"> March 2010 – November 2010 	<ul style="list-style-type: none"> Triggered by metric change Pre-emptive site visit prior to formal reporting Jointly-developed mitigation plan to improve readiness metric
	Readiness Center	<ul style="list-style-type: none"> Now – Go-Live 	<ul style="list-style-type: none"> Nodal.ercot.com Scorecard.ercot.com

Nodal Training Curriculum

Course	Classroom	Days	Availability	Web-Based*
ERCOT Nodal 101		1	Scheduled	
Load Serving Entity 201		1.5	Scheduled	
Basic Training Program		4	Scheduled	
Congestion Revenue Rights		1	January 2010	
Economics of LMP		1	Scheduled	
ERCOT 101 for Wind Generation		1	January 2010	
Generation 101		2	Scheduled	
Generation 201		2	Scheduled	
Transmission 101		2.5	Scheduled	
Network Model Management		1	January 2010	
NOIE QSE Operations		1	TBD	
Settlements 301		3	March 2010	

* All Web-Based courses are currently available

Other Nodal Training Courses

Course	Availability	Classroom	Web-Based
Settlement Workshops <ul style="list-style-type: none"> • Congestion Revenue Rights • Day-Ahead Market • Real-Time, including Reliability Unit Commitment 	November 2009 November 2009 January 2010		
Verifiable Cost Workshops	Offered several times in 2009. Available again as needed.		
MMS User Interface	Q2 2010	TBD	TBD
Outage Scheduler User Interface	Q2 2010	TBD	TBD

Upcoming Training Opportunities

Course	Start Date	Location
Basic Training Program	October 19	Wyndham Garden Hotel (Austin)
ERCOT Nodal 101	October 27	Garland Fire Admin Building (Dallas)
Generation 101	October 27	ERCOT Met Center (Austin)
Load Serving Entity 201	October 28	Garland Fire Admin Building (Dallas)
Generation 101	November 2	PSEG (Newark, NJ)
ERCOT Nodal 101	November 2	ERCOT Met Center (Austin)
CRR Settlement Workshop	November 2	ERCOT Met Center (Austin)
Load Serving Entity 201	November 9	ERCOT Met Center (Austin)
CRR Settlement Workshop	November 10	Calpine (Houston)
Generation 201	November 11	ERCOT Met Center (Austin)
Generation 101	November 16	Calpine (Houston)
DAM Settlement Workshop	November 17	Wyndham Garden Hotel (Austin)
Economics of LMP	November 19	ERCOT Met Center (Austin)

Upcoming Training Opportunities

Course	Start Date	Location
CRR Settlement Workshop	December 1	Garland Fire Admin Building (Dallas)
ERCOT Nodal 101	December 1	Calpine (Houston)
Generation 101	December 1	Tenaska (Dallas)
Load Serving Entity 201	December 2	Calpine (Houston)
Generation 201	December 7	PSEG (Newark, NJ)
Transmission 101	December 14	Centerpoint ECDC (Houston)
CRR Settlement Workshop	December 14	PSEG (Newark, NJ)
DAM Settlement Workshop	December 16	PSEG (Newark, NJ)

There are two components to the Outreach Program:

Scheduled Site Visits	Standby Site Visits
<ul style="list-style-type: none">■ A Market Participant will receive a “menu” with a number of offerings available to the Market Participant and duration of the offering.■ The Market Participant will be able to prioritize and select up to 6 hours of the available offerings to build what its scheduled site visit will entail.■ The Scheduled Outreach site visits will occur between October 2009 and March 2010■ 33 site visits are tentatively planned.	<ul style="list-style-type: none">■ Triggered by Readiness Scorecard metric change going Yellow or Red and unable to resolve without onsite evaluation.■ Specifically being conducted to collaboratively develop a mitigation plan to the get market participant “back to green.”■ Mitigation plans will document the issue and the findings.■ Standby site visits may occur between March 2010 and September 2010.

Market Participant Site Visits

Tentative Outreach Site Visits

Entity	Date
<input checked="" type="checkbox"/> LOWER COLORADO RIVER AUTHORITY	9-Oct
<input checked="" type="checkbox"/> CALPINE CORP	14-Oct
<input type="checkbox"/> AUSTIN ENERGY	20-Oct
<input type="checkbox"/> CITY OF GARLAND	21-Oct
<input type="checkbox"/> GDF SUEZ ENERGY MARKETING	29-Oct
<input type="checkbox"/> ANP FUNDING	3-Nov
<input type="checkbox"/> LUMINANT ENERGY	5-Nov
<input type="checkbox"/> INVENERGY WIND DEVELOPMENT	10-Nov
<input type="checkbox"/> EXELON	11-Nov
<input type="checkbox"/> AMERICAN ELECTRIC POWER SERVICE	12-Nov
<input type="checkbox"/> CONSTELLATION ENERGY	17-Nov
<input type="checkbox"/> PSEG ENERGY RESOURCES	18-Nov
<input type="checkbox"/> FULCRUM POWER	2-Dec
<input type="checkbox"/> EAGLE ENERGY PARTNERS I LP	3-Dec
<input type="checkbox"/> STEC	9-Dec
BP ENERGY COMPANY	10-Dec

Entity	Date
NRG TEXAS POWER	15-Dec
DIRECT ENERGY LP	5-Jan
CPS ENERGY	6-Jan
BRAZOS ELECTRIC	12-Jan
BTU (Bryan Texas Utilities) SERVICES	13-Jan
TOPAZ POWER MANAGEMENT	19-Jan
OCCIDENTAL	20-Jan
SHELL ENERGY	21-Jan
TENASKA POWER SERVICES	26-Jan
OPTIM ENERGY	27-Jan
APX	3-Feb
NEXTERA ENERGY	11-Feb
WIND PANEL (Houston)	16-Feb
RETAIL PANEL (Houston)	17-Feb
TRI-EAGLE ENERGY	18-Feb
XTEND ENERGY LP	2-Mar
EC AND R QSE	9-Mar

Confirmed Completed

Market Participant “Menu” Topics :

- Nodal Program Update (mandatory): 75 min
- Readiness Center and Readiness Scorecard: 45 min
- Day-Ahead Market Implementation: 60 min
- Congestion Revenue Rights (CRR) Auction Implementation: 60 min
- Reliability Unit Commitment Implementation: 60 min
- Telemetry & Load Frequency Control (LFC): 30 min
- Real Time Market Processes & Systems: 60 min
- Nodal Settlement and Billing Processes: 60 min
- Reports and Data Extracts: 30 min



Monthly Financial Review

Mike Cleary

Senior Vice President & Chief Technology Officer

October 20, 2009

Special Nodal Program Committee

19 October 2009

Financial Review – September 2009 Performance

Nodal Program

Approved Forecast to Actual Comparison

Month of September 2009

		Favorable / (Unfavorable)			
		Forecast Cumulative			
		Variance			
Line	Cost Summary	Forecast	Actual	Forecast Variance	(Pending Contingency Mgmt Disposition)
1	Internal Labor Costs	\$2.3	\$2.3	\$0.0	\$3.7
2	Backfill Labor Costs	0.1	0.1	0.0	(0.1)
3	External Resource Costs	4.9	3.5	1.4	13.5
4	Software & Software Maintenance	0.6	0.5	0.1	0.6
5	Hardware & Hardware Maintenance	3.7	1.7	2.0	3.6
6	Other	0.1	0.0	0.1	0.3
7	Sub-total Direct Project Costs	\$11.7	\$8.1	\$3.6	\$21.6
8	Board Discretionary Fund	\$0.0	\$0.0	\$0.0	\$0.0
9	Allocations	\$0.5	\$0.4	\$0.1	\$1.8
10	Finance Charges	1.0	1.0	0.0	1.1
11	Sub-total Indirect Project Costs	\$1.5	\$1.4	\$0.1	\$2.9
12					
13	Total	\$13.2	\$9.5	\$3.7	\$24.5

Amounts in millions

Financial Review - LTD Performance through September 2009

Nodal Program

Approved Forecast to Actual Comparison

Life-to-Date through September 2009

Line	Cost Summary	Forecast	Actual	Favorable / (Unfavorable)		
				June-September 2009 Forecast Variance	January-May 2009 Budget Variance	Forecast Cumulative Variance
1	Internal Labor Costs	\$49.9	\$49.6	\$0.3	\$3.4	\$3.7
2	Backfill Labor Costs	5.0	4.9	0.1	(0.2)	(0.1)
3	External Resource Costs	250.2	245.3	4.9	8.6	13.5
4	Software & Software Maintenance	24.1	22.9	1.2	(0.6)	0.6
5	Hardware & Hardware Maintenance	51.7	49.7	2.0	1.6	3.6
6	Other	2.0	1.9	0.1	0.2	0.3
7	Sub-total Direct Project Costs	\$382.9	\$374.3	\$8.6	\$13.0	\$21.6
8	Board Discretionary Fund	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
9	Allocations	\$19.1	\$18.9	\$0.2	\$1.6	\$1.8
10	Finance Charges	21.5	21.7	(0.2)	1.3	1.1
11	Sub-total Indirect Project Costs	\$40.6	\$40.6	\$0.0	\$2.9	\$2.9
12						
13	Total	\$423.5	\$414.9	\$8.6	\$15.9	\$24.5

Amounts in millions

Board Discretionary Fund Summary

- **The Board Approved Budget is \$643.8M as of February 17, 2009 which included the Board Discretionary Fund (BDF) of \$58.6M. This remains a sound not-to-exceed budget.**
- **Direct Program Costs: January 2009 through September 2009 underspend is \$21.6M**
 - \$10.1 million reprogrammed by projects to forward months
 - \$2.3 million reprogrammed for Risk Identified Items
 - \$9.2 million added to BDF from Direct Program Costs
- **Indirect Program Costs: January 2009 through September 2009 underspend is \$2.9M**
 - \$1.8 million of support and facilities allocations added to BDF from indirect program costs
 - \$1.1 million of financing costs added to BDF from indirect program costs
- **Financing Costs, forward months to full Nodal Costs recovery: reduction of \$14.0M added to BDF due to interest rate hedging program and changes in Nodal borrowing levels**
- **Board Discretionary Fund of \$58.6M increased by \$26.2M to \$84.8M**

As of September 30, 2009	Amounts in millions	
Preliminary Board Discretionary Fund		\$58.6
Direct Program Costs Underspend	\$21.6	
Less Direct Program Costs reprogrammed	(10.1)	
Less Direct Program Costs Risk Items	(2.3)	
Plus Direct Program Costs Underspend		9.2
Plus Allocation & Facilities Costs Underspend		1.8
Plus Finance Charge Underspend		1.1
Plus Finance Cost Reduction		14.0
Updated Board Discretionary Fund		\$84.8

Direct Program Costs: Reprogram by Project of \$12.4M

		Favorable / (Unfavorable)			
Nodal Systems Category	Nodal Projects	2/17 Board Approved Budget	Underspend Thru September 2009	Reprogrammed Amount	Estimate at Completion
Market Trials	Early Delivery Systems	\$35.0	\$1.5	\$8.9	\$24.5
Integration Testing	Intergration & Product Testing	40.2	3.9	1.9	34.4
Corporate Applications	Enterprise Integration Project	27.1	(1.3)	1.6	26.8
	Enterprise Data Warehouse	6.8	0.6	(0.6)	6.7
	Market Information System	6.0	0.0	(0.9)	7.0
Infrastructure	Infrastructure	131.5	7.8	(0.2)	123.9
ERCOT Readiness	ERCOT Readiness & Transition	30.7	3.8	(3.3)	30.2
Market Systems	Congestion Revenue Rights	9.1	0.2	0.3	8.6
	Commercial Systems	28.2	1.6	(2.1)	28.7
	Market Management System	79.2	2.4	(2.5)	79.3
Reliability Systems	Network Model Management System	15.7	0.4	(2.8)	18.1
	Energy Management System	34.0	0.4	(3.7)	37.3
Program Controls, Administration, & IDA	Program Control	20.3	0.3	(9.3)	29.4
	Administration	\$6.9	(\$0.3)	\$0.3	\$6.9
	Integration & Design Authority	11.2	0.2	0.0	11.0
Direct Program Costs		\$481.8	\$21.6	(\$12.4)	\$472.6
Board Discretionary Fund		\$58.6		(\$26.2)	\$84.8
	Allocations	\$25.7	\$1.8	\$0.1	\$23.7
	Finance Charges	77.7	1.1	13.9	62.7
Indirect Program Costs		\$103.4	\$2.9	\$14.0	\$86.4
Total Program Costs		\$643.8	\$24.5	\$0.0	\$643.8

Direct Program Costs: Reprogramming of the \$12.4 million

	Major Activities/Adjustments	Amount (Increase) / Decrease
	Underspend through September 30, 2009	\$21.6 million
Market Trials (EDS)	<ul style="list-style-type: none"> • Shifted start of Market Trials from 2009 to 2010 • Transferred scope to ERT & ORT budgets (e.g. internal training, metrics, IT support during cutover) • Reduction in support level required to deliver Market Trials 	\$8.9
Integration Testing	<ul style="list-style-type: none"> • Aligned Integration Testing Approach with Market Trials releases • Displacement of external contractors with internal effort 	\$1.9
Corporate Applications	<ul style="list-style-type: none"> • Accelerated transition of tasks to Home Team resources • Requirements and maintenance/support through go-live • Approved scope change (CI316) ; NOGRR025 Compliance 	\$0.1
Infrastructure / ORT - Operational Readiness	<ul style="list-style-type: none"> • TCC data center expansion equipment (Brocade Capacity & Cisco Switches, racks) • Delay in purchase of IMM/OTS hardware due to back order @ vendor 	(\$0.2)
Direct Program Costs for Risk Items	<ul style="list-style-type: none"> • Infrastructure Hardware Purchases- hardware switches to support the nodal environment infrastructure • Traceability- ensuring effort is completed by end of year to identify known gaps and impacts to system remediation are planned • Orchestration/Business Continuity- effort to define, plan and implement processes for interaction of market timelines and supporting business and technology activities, particularly in the event of specific business and technology scenario failures 	(\$2.3)
ERCOT Readiness	<ul style="list-style-type: none"> • Increase in scope from EDS transfer (Internal training, metrics tracking) • Market Participant site visits • Metrics tracking 	(\$3.3)
Market Systems	<ul style="list-style-type: none"> • Delay in the start of IMM development; strategic shift to in-house development • Roll forward of ABB/MMS development/break fix support • CMM Phase II internal development 	(\$4.3)
Reliability Systems	<ul style="list-style-type: none"> • Requirements and maintenance/support through go-live • Deferred the start of new task order for Operator Training Simulator (OTS) to align with Black Start testing • Approved scope change (CI322) RID EPS meters 	(\$6.5)
Program Controls & Admin	<ul style="list-style-type: none"> • New program management structure (CTO, HR, FMO) • Increase use of 3rd party audits • Protocol traceability effort 	(\$6.7)
Total Reprogrammed		(\$12.4)

EAC Reforecast from 02/17/09 Board Approved Budget

Favorable /
(Unfavorable)

Change from

2/17/2009

Approved

Estimate to Complete

2/17/2009
Approved
Budget

Actuals
Through
September

2009

2010

Total

Estimate at
Completion

Version: 9/30/09

COST SUMMARY (\$)

Internal Labor	\$86.1	\$49.6	\$6.4	\$31.2	\$37.6	\$87.2	(\$1.1)
Backfill	8.5	4.9	0.4	1.9	2.3	7.2	1.3
Contingent Labor (External)	292.5	245.3	11.4	32.1	43.5	288.8	3.7
Software	37.1	22.9	3.4	3.9	7.3	30.2	6.9
Hardware	54.4	49.7	1.1	3.5	4.6	54.3	0.1
Travel & Miscellaneous	3.2	1.9	0.1	2.9	3.0	4.9	(1.7)
Total Direct Project Costs	\$481.8	\$374.3	\$22.8	\$75.5	\$98.3	\$472.6	\$9.2
Board Discretionary Fund	\$58.6			\$26.2	\$26.2	\$84.8	(\$26.2)
Allocations	\$25.7	\$18.9	\$1.1	\$3.7	\$4.8	\$23.7	\$2.0
Finance Charges	77.7	21.7	3.7	37.3	41.0	62.7	15.0
Total Direct Project Costs	\$103.4	\$40.6	\$4.8	\$41.0	\$45.8	\$86.4	\$17.0
Total Program Costs	\$643.8	\$414.9	\$27.6	\$142.7	\$170.3	\$643.8	\$0.0

Amounts in millions

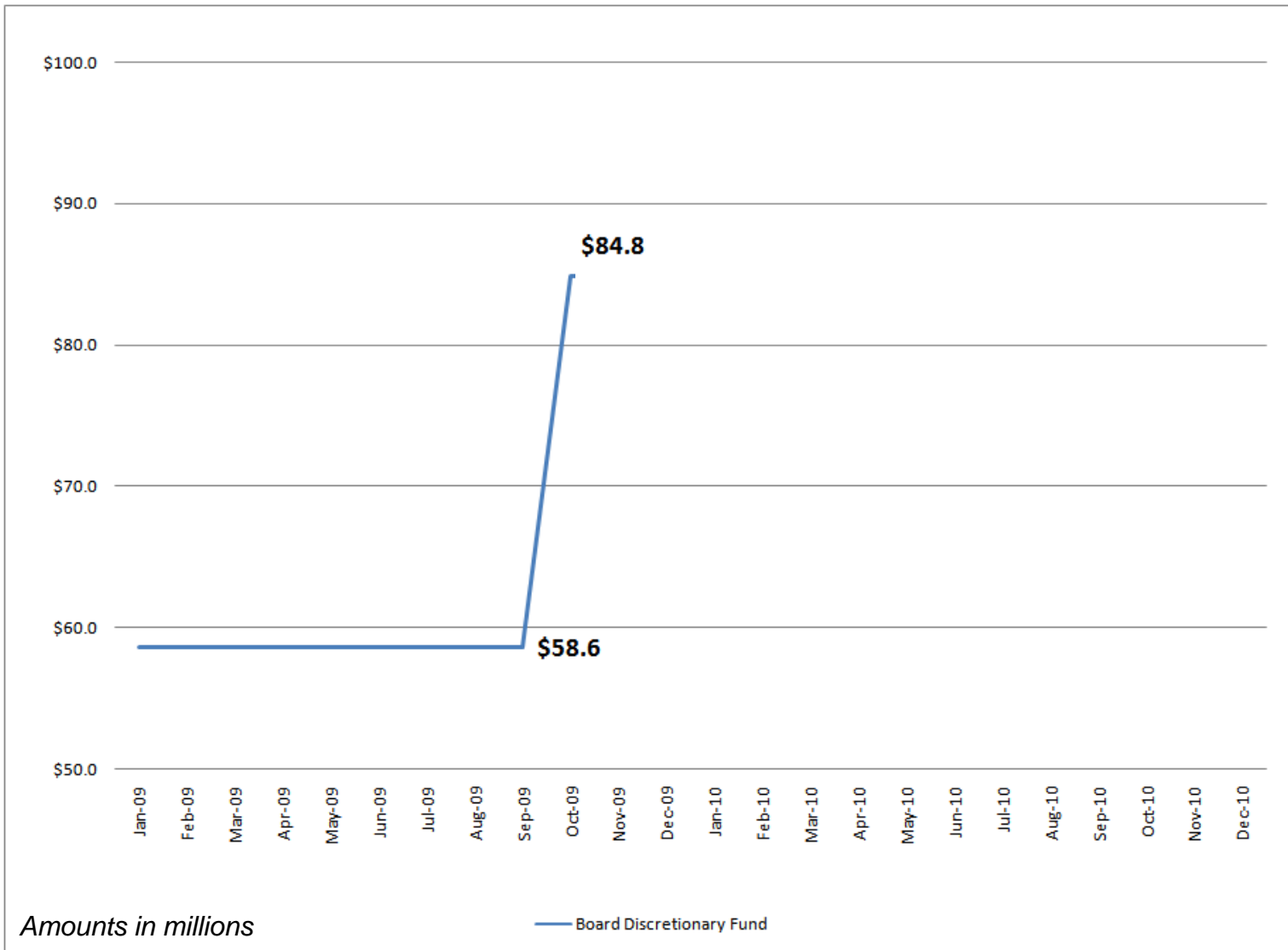
Examples of Major Changes Identified

- **Misses**
 - EMS requirements and maintenance/support through go-live
 - NMMS requirements and maintenance/support through go-live
 - EDW maintenance/support through go-live
 - Performance awards on successful completion
 - Allocation for ERCOT Directors (25% allocation) within Project Controls through go-live
 - Business validation of Performance Testing (ORT)
- **New scope**
 - New program management structure (CTO, HR, key project directors)
 - Increase in use of 3rd party audits
 - 3rd party negotiator
 - Protocol traceability project
 - TCC data center expansion equipment
 - EDW Scope Change item #CI316
 - EMS Approved scope change for item CI322 RID EPS meters
 - New Financial Management Office

Examples of Major Changes Identified - continued

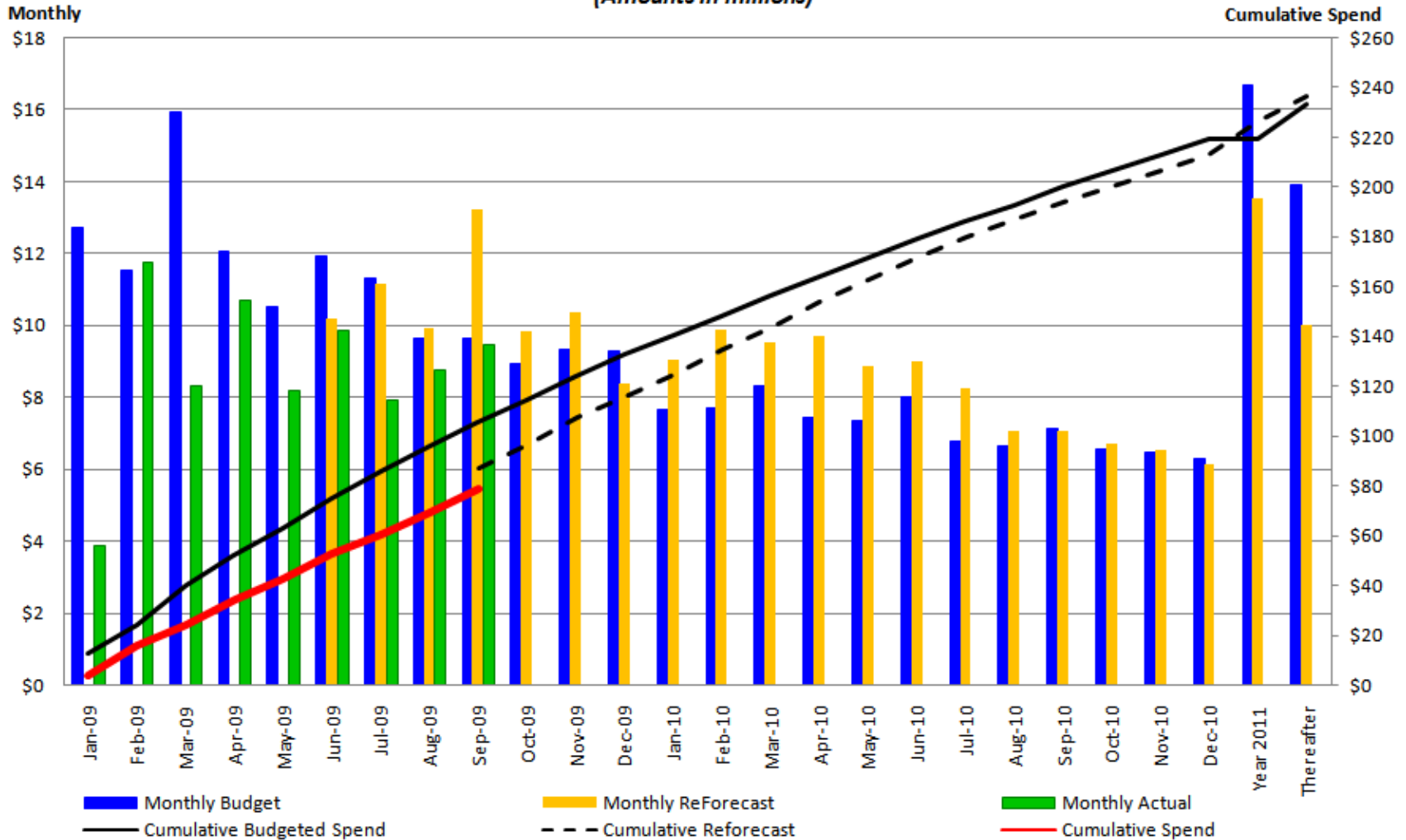
- **Delayed Work**
 - IMM/OTS hardware; P5 upgrade; Brocade capacity
 - Replanned the INT Testing Approach
- **Validated Labor effort (bottom-up estimates)**
 - ERT: Reduced Internal Processes, Procedures & Training; External Outreach & Training; & Metrics Tracking & Assessment
 - NERC Standards, Data Retention and Standards
 - Market Participants site visits reduced in scope and scale of effort
 - Metrics tracking
 - ORT: Reduced Environment Configuration & Management and Production Support by displacing External Contractors
 - Release Management
 - Retail Operations Support
 - EDS: Phase 4 & 5 general support levels adjusted for phased in functionality development and support levels with Market Participants
 - Market Operations Support
 - Settlements and Billing Operations
 - INT: Developed bottom up estimate and aligned INT Test Approach to with Market Trials releases

Board Discretionary Fund



Program Cost Management

Monthly Budget, Forecast and Actual Analysis (Amounts in millions)



Questions ?

Appendix

Critical Defect Definitions

- **Critical defects are required to be fixed before go-live**
- **Critical defects are identified as:**
 - Severity 1
 - Severity 2
 - Severity 3 priority 1 & priority 2
 - Severity 4 priority 1 & priority 2
 - Severity 5 priority 1 & priority 2
- **A continual defect review process will ensure that, after review and approval by the business, non-critical defects are deferred in Quality Center with adequate documentation (e.g., test script results, impacted functions, recreation steps, workarounds)**

NOTE: All documented workarounds for deferred defects will be provided to the ERCOT readiness team for review and inclusion in desk procedures, when applicable

July-to-September Comparison

Project	Resolved as of 7/29/09*	Open as of 7/29/09*	Deferred as of 10/13/09	High Severity/Priority Defect Counts									
				New in July	Reopened in July	Closed in July	New in Aug.	Reopened in Aug.	Closed in Aug.	New in Sept.	Reopened in Sept.**	Closed in Sept.	
CDR	276	41	43	0	0	0	0	0	0	0	1	0	0
COMS-CMM	449	258	26	100	27	146	24	16	81	31	4	34	
COMS-DATA AGG			1	0	0	0	0	0	0	0	0	0	0
COMS-FT	17	0	0	0	0	0	0	0	0	1	0	1	
COMS-REG/DISP	480	3	53	0	0	0	0	0	0	0	0	0	0
COMS-S&B	278	10	25	3	0	0	13	1	4	25	3	8	
CRR	493	7	28	3	0	0	4	1	3	12	2	1	
CSI			6	10	0	1	29	0	6	11	2	8	
EDW	613	43	55	5	2	10	9	3	14	2	0	7	
EIP	524	77	1	23	1	16	14	2	36	10	3	23	
EMS	437	173	222	9	5	15	37	11	2	36	3	47	
MIS	267	65	25	5	0	0	4	3	6	0	0	10	
MMS	765	158	11	7	0	21	15	6	30	10	0	35	
MMS MM UI	109	114	13	10	12	23	24	4	12	20	8	43	
NMMS	613	182	27	5	0	1	6	0	4	7	0	25	
OS	217	151	64	12	0	5	5	1	2	2	0	13	
OS RUI	183	73	27	12	6	21	2	0	0	20	0	20	
TOTAL	5721	1355	627	204	53	259	186	48	200	188	25	275	

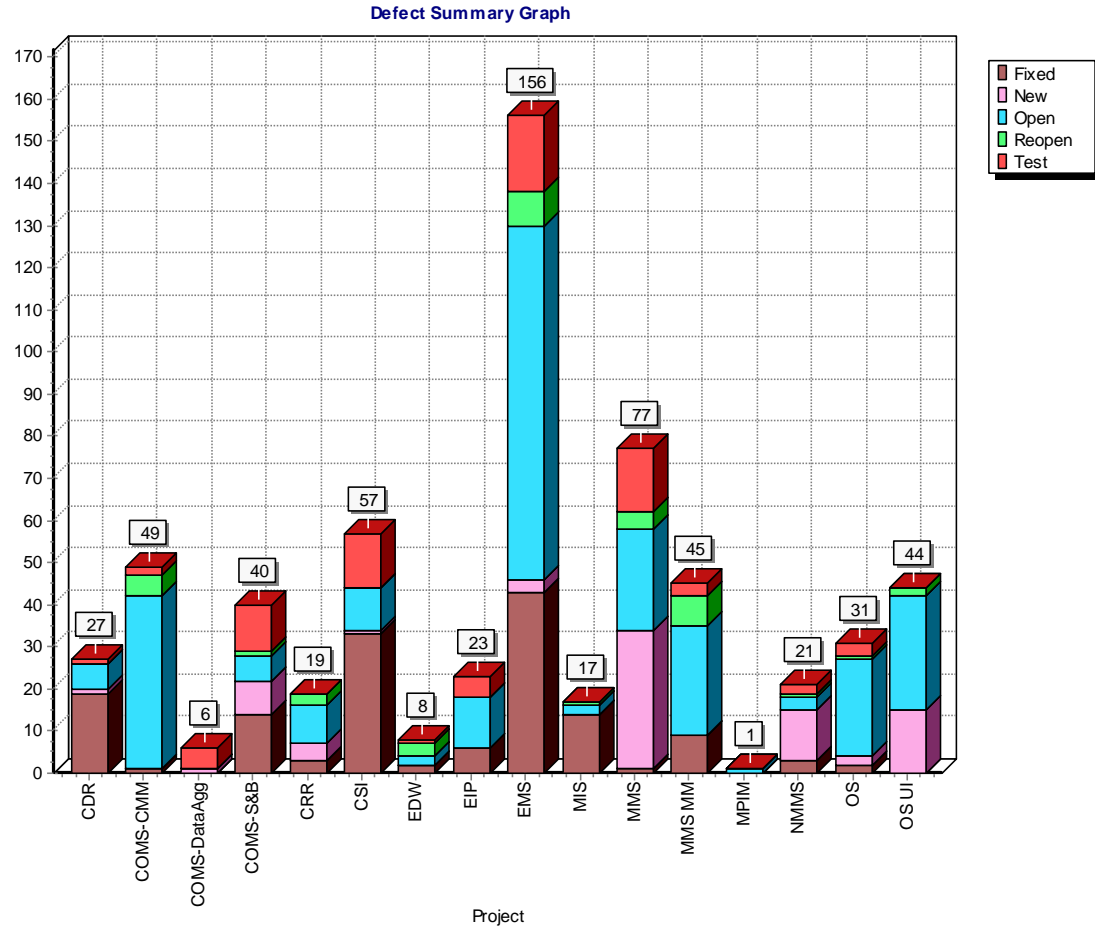
* Defect tracking categories have been adjusted since the report “as of 7/29/09” was supplied

- Data Aggregation has been added as a project
- Registration and Disputes have been combined into one project
- Commercial Systems Integration (CSI) has been added as a project

** An error with the Reopened defect counts was identified in last month’s report. The counts above reflect the corrected amount for September.

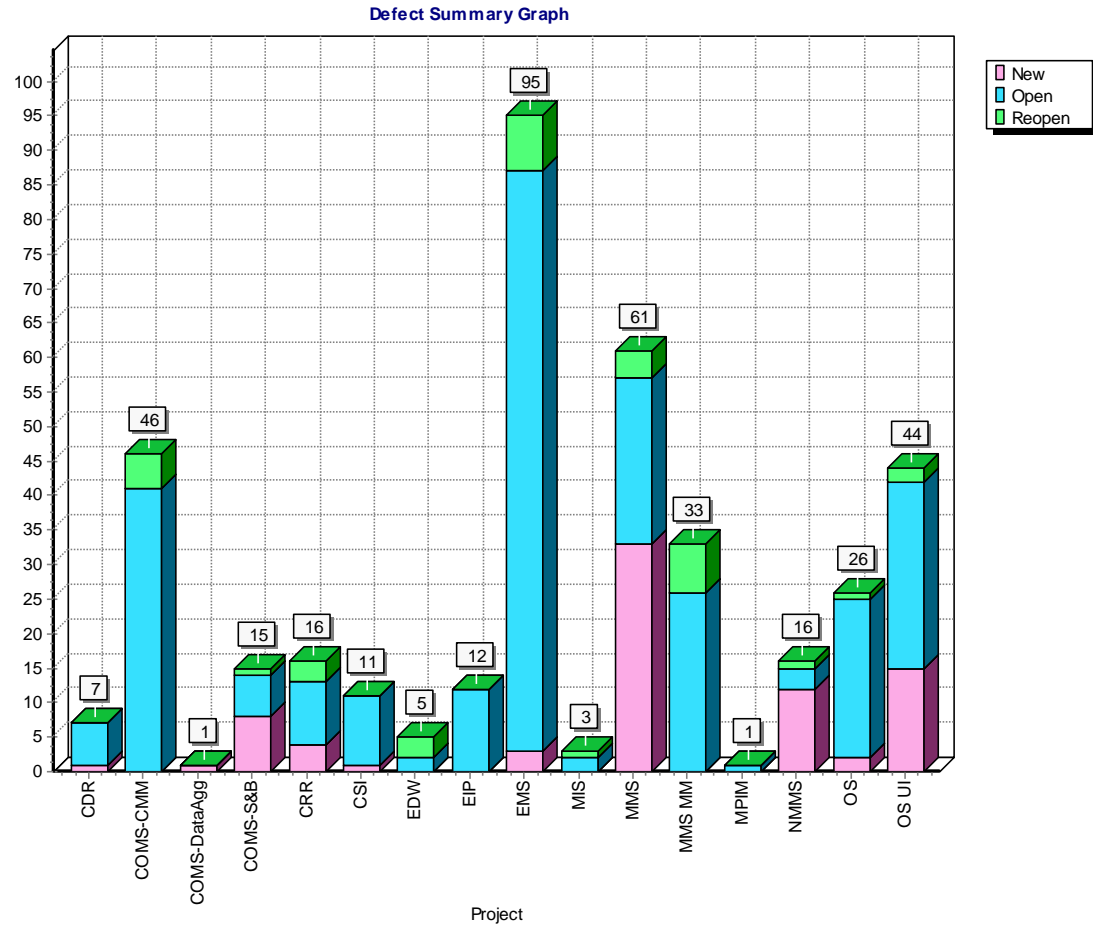
All High Severity/Priority Open Defects

	Fixed	New	Open	Reopen	Test	<total>
CDR	19	1	6		1	27
COMS-CMM	1		41	5	2	49
COMS-DataAgg		1			5	6
COMS-S&B	14	8	6	1	11	40
CRR	3	4	9	3		19
CSI	33	1	10		13	57
EDW	2		2	3	1	8
EIP	6		12		5	23
EMS	43	3	84	8	18	156
MIS	14		2	1		17
MMS	1	33	24	4	15	77
MMS MM	9		26	7	3	45
MPIM			1			1
NMMS	3	12	3	1	2	21
OS	2	2	23	1	3	31
OS UI		15	27	2		44
<total>	150	80	276	36	79	621



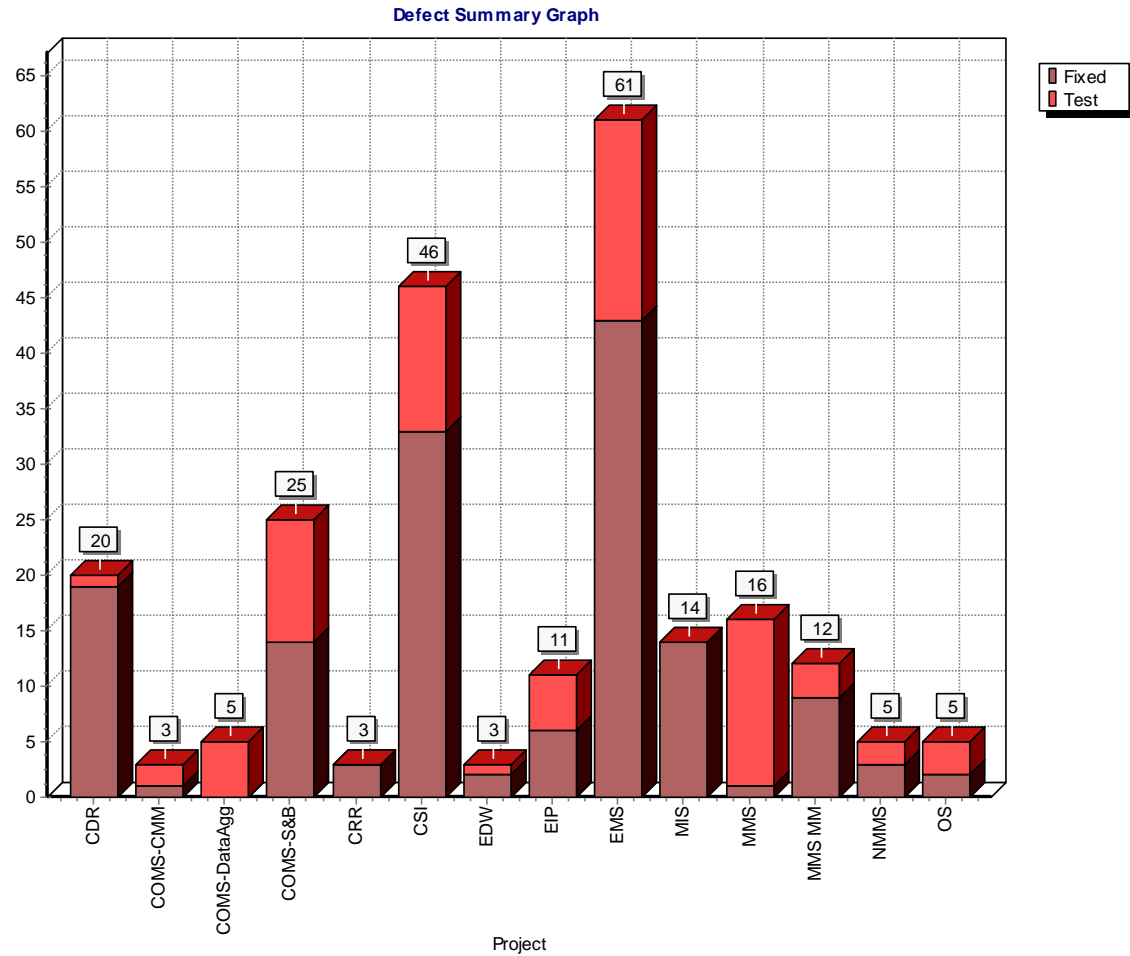
High Severity/Priority Open Defects to be addressed by Development or Vendor (New, Open, Reopen)

	New	Open	Reopen	<total>
CDR	1	6		7
COMS-CMM		41	5	46
COMS-DataAgg	1			1
COMS-S&B	8	6	1	15
CRR	4	9	3	16
CSI	1	10		11
EDW		2	3	5
EIP		12		12
EMS	3	84	8	95
MIS		2	1	3
MMS	33	24	4	61
MMS MM		26	7	33
MPIM		1		1
NMMS	12	3	1	16
OS	2	23	1	26
OS UI	15	27	2	44
<total>	80	276	36	392



High Severity Open Defects - Addressed by Development or Vendor (Fixed, Test)

	Fixed	Test	<total>
CDR	19	1	20
COMS-CMM	1	2	3
COMS-DataAgg		5	5
COMS-S&B	14	11	25
CRR	3		3
CSI	33	13	46
EDW	2	1	3
EIP	6	5	11
EMS	43	18	61
MIS	14		14
MMS	1	15	16
MMS MM	9	3	12
NMMS	3	2	5
OS	2	3	5
<total>	150	79	229

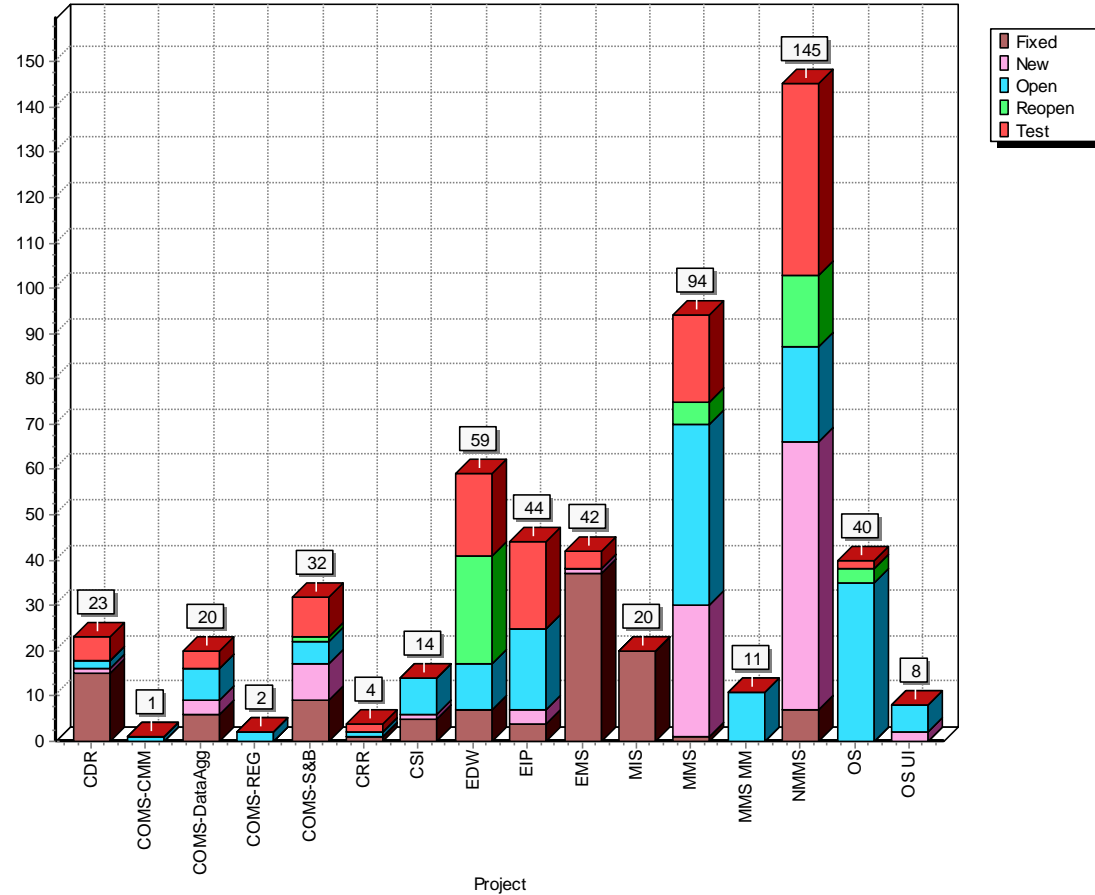


All Low Severity/Priority Open Defects

NOTE: These defects are part of the triage process to review and defer if not deemed critical for go-live by business

	Fixed	New	Open	Reopen	Test	<total>
CDR	15	1	2		5	23
COMS-CMM			1			1
COMS-DataAgg	6	3	7		4	20
COMS-REG			2			2
COMS-S&B	9	8	5	1	9	32
CRR	1		1		2	4
CSI	5	1	8			14
EDW	7		10	24	18	59
EIP	4	3	18		19	44
EMS	37	1			4	42
MIS	20					20
MMS	1	29	40	5	19	94
MMS MM			11			11
NMMS	7	59	21	16	42	145
OS			35	3	2	40
OS UI		2	6			8
<total>	112	107	167	49	124	559

Defect Summary Graph

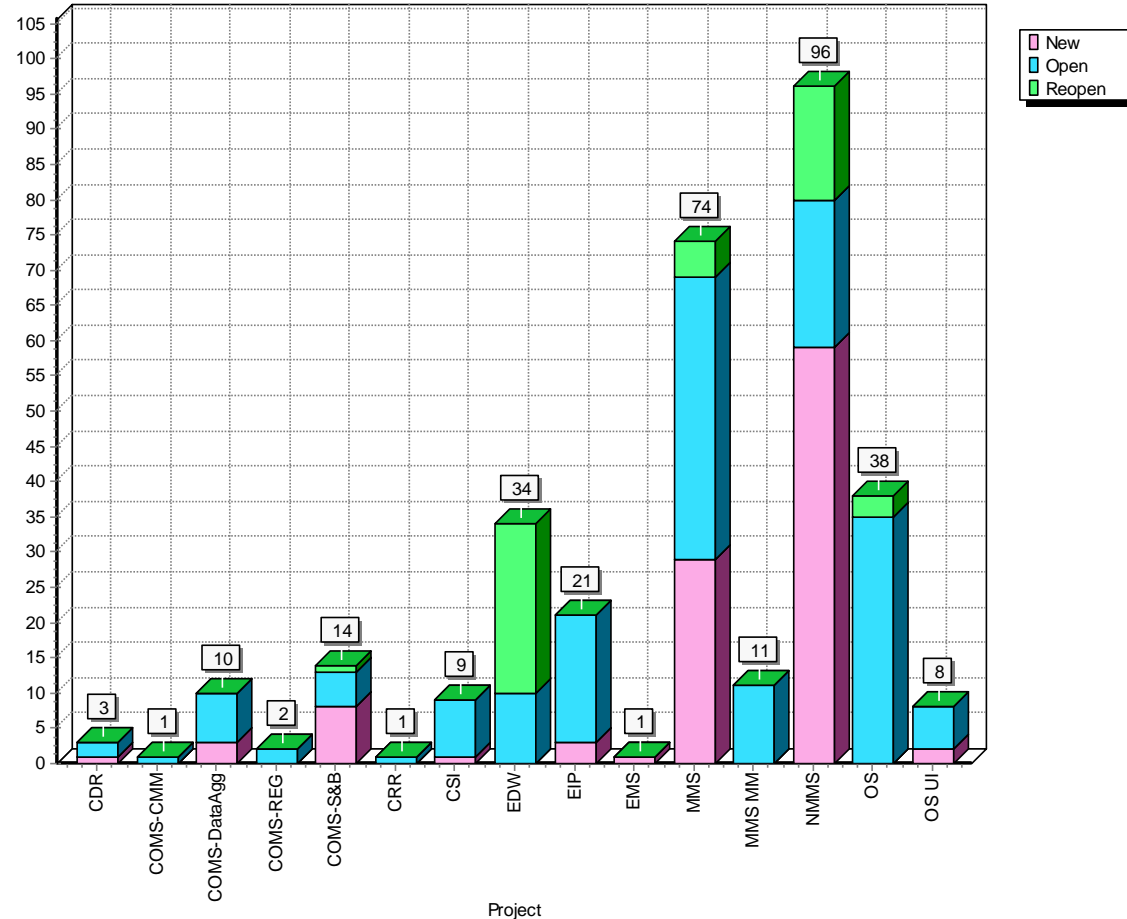


Low Severity/Priority Open Defects to be addressed by Development or Vendor (New, Open, Reopen)

NOTE: These defects are part of the triage process to review and defer if not deemed critical for go-live by business

	New	Open	Reopen	<total>
CDR	1	2		3
COMS-CMM		1		1
COMS-DataAgg	3	7		10
COMS-REG		2		2
COMS-S&B	8	5	1	14
CRR		1		1
CSI	1	8		9
EDW		10	24	34
EIP	3	18		21
EMS	1			1
MMS	29	40	5	74
MMS MM		11		11
NMMS	59	21	16	96
OS		35	3	38
OS UI	2	6		8
<total>	107	167	49	323

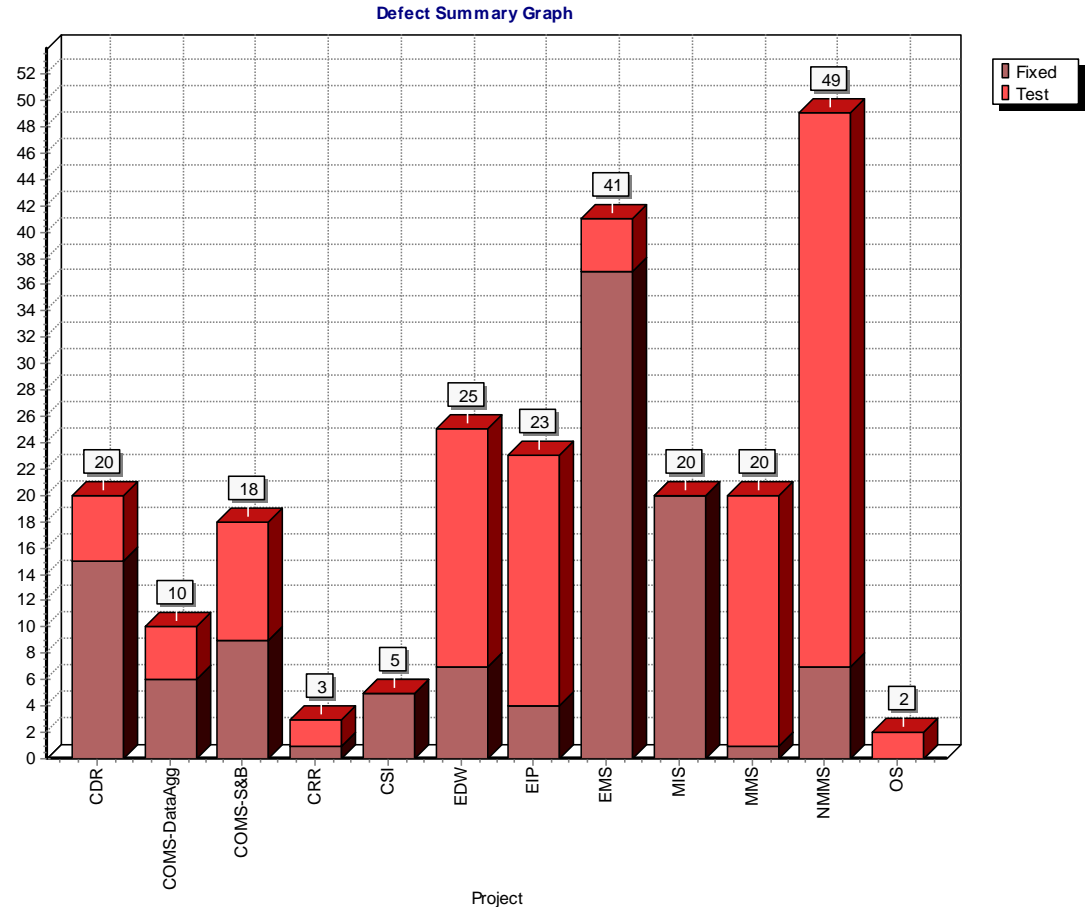
Defect Summary Graph



Low Severity/Priority Open Defects - Addressed by Development/Vendor (Fixed, Test)

NOTE: These defects are part of the triage process to review and defer if not deemed critical for go-live by business

	Fixed	Test	<total>
CDR	15	5	20
COMS-DataAgg	6	4	10
COMS-S&B	9	9	18
CRR	1	2	3
CSI	5		5
EDW	7	18	25
EIP	4	19	23
EMS	37	4	41
MIS	20		20
MMS	1	19	20
NMMS	7	42	49
OS		2	2
<total>	112	124	236



Program Risk: Market Interaction Operating Level Agreements (OLAs)

◇ Potential Milestone Impact: Phase 2.1 Market Connectivity

Risk: Market interaction OLAs				Need to determine operating level agreements associated with market interactions to assist ERCOT in establishing operational thresholds. ERCOT is responsible for ensuring any market thresholds required before Go-Live are defined, managed through the appropriate stakeholder processes and communicated in a timely fashion.		
Risk Life Cycle State						
Define	Plan	Manage	Watch			
Mitigation Plans				Who	Target Date	Current Status
Operational Readiness Team to define OLAs for the nodal services defined in the ERCOT IT Services Catalog: <ul style="list-style-type: none"> • RT Generation Control • RT Sequence and SCED • RT Reporting and Notifications • Market Transactions and Clearing • Outage Schedules Management • Network Model Management • Enterprise Information Services • Congestion Revenue Management • MP Relationship Management • Financial Clearinghouse 				J. McCall	April/May 2010	10/12/2009: Phase 2.1 OLAs established and communicated to the market during the Oct. 8 Market Readiness Seminar. ERCOT will continue to define OLAs for each subsequent Market Trial Release via the ORT project.

Program Risk: Integration Testing

◇ Potential Milestone Impact: Market Trials

Risk: Integration Testing				Continued risk around technology delivery of business systems integration due to complexity and continuing maturing of application and data dependencies.		
Risk Life Cycle State						
Define	Plan	Manage	Watch			
Mitigation Plans				Who	Target Date	Current Status
<ul style="list-style-type: none"> Planned Integration Test phases and associated functional and technology components. Created effort-based testing delivery work plan to prioritize and align deliverables to key external milestones. Instituted daily PMO meetings to manage and mitigate day-to-day risks to scope and schedule deliverables. 				PMO	Ongoing	<p>9/2/09 – Planning of Test phases and associated work plan has been completed</p> <p>Execution of work plan, with specific focus on October Market Trials functionality has begun</p>

Program Risk: Internet Explorer 6 Upgrade

◇ Potential Milestone Impact: Phase 2.1 Market Connectivity

Risk: Internet Explorer 6 Upgrade				Nodal Integration testing for the Market Participant (MP) User Interfaces and MIS reporting is using Internet Explorer (IE) version 6. MPs have requested ERCOT support a newer version, IE7. In addition, IE8 is also available. If the Nodal Market-Facing application requires certification against other IE versions, there will be internal and external costs associated with re-testing and updating the web-user interfaces.		
Risk Life Cycle State						
Define	Plan	Manage	Watch			
Mitigation Plans				Who	Target Date	Current Status
Currently the ERCOT Enterprise Architecture team is researching to assess impact.				S. Catoe	10/30/09	9/30/09 – Zonal analysis is complete and Corporate analysis is at 50 percent. Currently working on estimates to conduct impact analysis.

Program Risk: Reconciling Protocols, Systems and Market Expectations

◇ Potential Milestone Impact: Market Trials

Risk: Reconciling Protocols, Systems and Market Expectations				Experience with deploying nodal markets by other ISOs has shown that expectations of the market participants are often missed, despite best efforts at defining tariffs or protocol requirements. ERCOT needs to assume such a risk exists for this nodal implementation as well.
Risk Life Cycle State				
Define	Plan	Manage	Watch	
Mitigation Plans		Who	Target Date	Current Status
1. Assess maturity and readiness of software in the initial nodal release, focusing on new/tailored capability for Texas Nodal.		B. Day K. Farley	12/15/09	10/09/09 – SME's are working with business owners on research and alignment items. Full trace reports will be provided to NATF starting late Oct.
2. Add team members to the nodal program with Texas market experience to ensure readiness for Market Trials. SMEs to discussion alignment issues with ERCOT business owners. SMEs to report the results of the assessment to the ERCOT business owners for resolution.		B. Day K. Farley	Ongoing	10/09/09 – Work is underway to trace protocols, requirements and business processes alignment analyses are in progress.
3. Keep the oversight groups apprised of progress.		M. Cleary	Ongoing	10/09/09 – status reports provided to program, NATF, TAC, Special Nodal Committee monthly.

ERCOT-Wide Risk: Data Center Expansion Capacity Concerns

◇ Potential Milestone Impact: Nodal Go-Live

Risk: Data Center Expansion Capacity Space Concerns				Data center capacity, space, and power may be inadequate for Nodal Go-Live, unless plans for expansion are adequate.		
Risk Life Cycle State						
Define	Plan	Manage	Watch			
Mitigation Plans				Who	Target Date	Current Status
1. Establish an Information Lifecycle Management approach to manage the life cycle of data being managed.				D. Forfia	Implementation expected Q1 2010 for Retail Applications	ERCOT project PR 90006_01 Commercial Systems Information Lifecycle Management Project will be presenting as an update during the October Board of Directors Meeting, and will request Execution and Funding approval at the November Board of Directors Meeting.
2. Expand current data center space, and build out new data center, to increase ERCOT data center capacity.				D. Forfia	11/01/09	10/12/09 All but one server has been successfully migrated to expanded space. TCC1 expansion and risk-mitigation steps for Met Data Center provide sufficient space for Nodal Go-Live in December 2010.
3. Validate and monitor Nodal data capacity assumptions for Go-Live				D. Forfia	Ongoing	Status reports are provided to the Board of Directors in executive sessions.

External Audit Status Summary

Audit	Audit Points Identified	Audit Points in Execution	Date to Complete Last Point
IBM Report 7	4	1	12/31/09
Utilicast Report 8	6	1 in progress	2011
Utilicast Report 10 (Morgan)	9	9 complete	
Utilicast Report 10 (Cleary)	12	2 in progress; 10 complete	12/15/09
Utilicast Report 10 (Capezzuti)	1	1 in progress	9/17/09

Audit Point Complete, To Be Verified: IBM Report 7

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.
IBM 07-01	ERCOT Readiness	The ERCOT Readiness Team should focus time and resources on the organizations that are highly impacted by Nodal. Minimal time should be spent on tracking procedures development for the corporate and retail functions at ERCOT.	CLOSED On June 23rd, ERT presented the IBM audit findings and recommendations. The result was that the TPTF wants to keep the original Procedures metric. They also reaffirmed that the entire enterprise should have documented procedures, reiterating the original metric. They also stated that all departments need to be familiar with both new and existing procedures.	V. Gates	B. McElfresh

Audit Points to Address from Utilicast Report 8

ID	Description	Action Plan	Responsible Director	Responsible Manager	Target Date
UT108-05	There should be immediate investment in new data center capacity to allow for expansion of IT infrastructure to support the Nodal Program.	A project has been initiated to expand the data center in Taylor (PR-80047). Planned occupancy date is September 2009, with plan to add or move hardware under development. Additional data center space planned as part of the Met Center disposition project (PR-80001). Those data centers should be online in mid-2011. Plans are under development to provide capacity prior to those new data centers becoming available.	R. Morgan	Jeff Floyd	TCC1 build out is complete. Bastrop DC in production Feb 2011. TCC3 in production May 2011.

Audit Points Closed, To Be Verified: 1

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.
UTI-10 – 07B	Organization Assessment	ERCOT staff should be deployed in time for End-to-End testing to take advantage of the training opportunity and to assist with the dual operation workload.	CLOSED Resource plans for End-to-End testing are being identified in the resource planning spreadsheet, with appropriate ERCOT staff handling their operations roles.	J. Iacobucci	D. Luedtke V. Gates
UTI-10 – 01C	Release Mgmt, Change Mgmt, Access Mgmt, Problem Mgmt	The Nodal Project Team should continue to require the implementation of ClearCase for use as the automatic code deployment tool, and the Nodal PM's should be required to use their assigned Release Coordinators to facilitate their use of the Release Management (RM) process.	CLOSED The RM team is working with the nodal teams to implement the approach. The nodal teams need to follow the approach and use the RM tool.	M. Cleary	J. Iacobucci
UTI-10 – 01D	Release Mgmt, Change Mgmt, Access Mgmt, Problem Mgmt	The Nodal Project Teams should work with their Release Coordinators to refine their release planning processes and work toward a forecasting accuracy of +/- 20% or better.	CLOSED The RM team is tracking metrics at a more granular level and reaching out to project teams where improvement opportunities are identified. RM will continue to monitor these reports and pinpoint problem areas. As the integrated nodal solution continues to mature, the program will continue to expect improved forecasting accuracy.	M. Cleary	K. Kasparian D. Gwinn

Audit Points Closed, To Be Verified: 2

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.
UTI-10 – 06B	End-to-End Business Readiness Activities	Use manual triggers, or other workarounds, to string together business functions to simulate End-to-End testing. This will be particularly beneficial in areas where ERCOT has unique market rules.	<p>CLOSED Defined by the End-to-End (E2E) strategy. Manual triggers or workarounds (documented in test scripts) are used where necessary to execute an end-to-end or bid-to-bill test.</p> <p>Not all of ERCOT's unique market rules are being executed in E2E testing. Due to time constraints, E2E first executes a Base Case scenario, then a select set of scenarios expected to occur frequently after go-live.</p>	M. Nixon	K. Ragsdale
UTI-10 – 08	Contingency Plans for Failed Data Transfers	<p>Utilicast recommends that the Nodal Program should create and execute contingency plans for failed data transfers which would include the following components:</p> <ol style="list-style-type: none"> 1) Create manual workarounds for situations where interfaces fail to enable continued End-to-End operations. 2) Create procedures to correct flawed or missing data from upstream systems. The workarounds and procedures could evolve into a long-term data controls and data quality management process. 3) Utilize these tools now to support functional Integration Test while technical components are still evolving. 	CLOSED	D. Luedtke	S. Mijar

Audit Points Closed, To Be Verified: 3

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.	Target Date
UTI – 10 – 09	End to End Testing Readiness Updates	The Nodal Program should provide monthly End-to-End Testing Readiness updates. Utilicast recommends that the Nodal Program provide an End-to-End Testing Readiness update each month to the Special Nodal Program Committee Meeting. To reduce the subjectivity in status reporting, the Nodal Program should report the status of End-to-End requisite components (not simply % complete of tasks). Milestones should be developed that clearly cover the entry criteria for End-to-End testing.	CLOSED The ground up effort based plan is in place. We can measure progress through the integration testing phase.	J. Iacobucci	D. Luedtke	9/4/2009

Audit Points to Address from Utilicast Report 10-1

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.	Target Date
UTI-10 – 04A	Taylor Data Center Expansion Project Mgt	Continue to manage the Taylor Control Center Expansion project to ensure that the additional capacity is available, as planned, by October 2009.	Expansion is underway, controlled by ERCOT facilities; no budget or schedule issues known.	N. Capezzuti	S. Grendel	9/14/09
UTI-10 – 06C	End-to-End Business Readiness Activities	Ensure Nodal processes and procedures are completed so they can be exercised during End-to-End testing.	<p>Planning is complete for ensuring that all nodal processes and procedures that will need to be exercised during end-to-end testing are scheduled for completion prior to the execution of those processes and procedures per the end-to-end schedule.</p> <p>The schedule below reflects the Nodal test schedule:</p> <ol style="list-style-type: none"> 1. MT Phase 3 – SCED, OS Submissions, CRR Auctions due 12/15/09 2. MT Phase 4 & 4.1 - DAM, RUC, OS, CRR Invoices, Settlements and Billing due 2/15/10 3. MT Phase 5 & 6 – Remaining production procedures due 3/15/10 4. Phase 6 – Integrated final code due 6/1/10 	V. Gates	J. Adams	9/17/09

Audit Points to Address from Utilicast Report 10-2

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.	Target Date
UTI – 10 – 06D	End-to-End Business Readiness Activities	Prior to End-to-End testing, complete a final review of the Protocols to compare against current system capabilities. Such reviews are underway on many of the project teams.	SME's are working with business owners on research and alignment items. Full trace reports will be provided to NATF starting late Oct.	B. Day	K. Farley	12/15/09