



Nodal Program Update

Jason Iacobucci

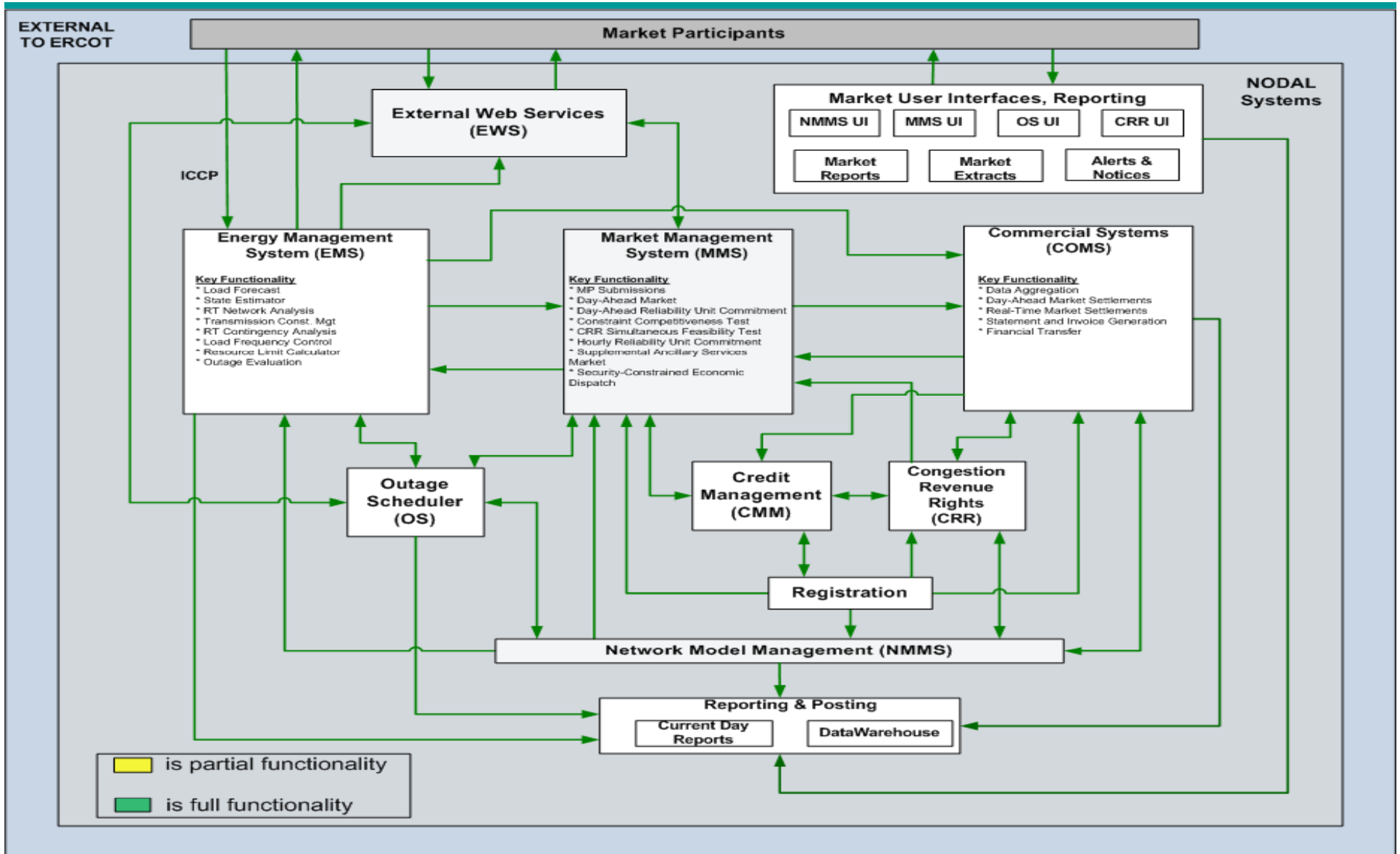
Nodal Program Manager

Special Nodal Program Committee
18 January 2010

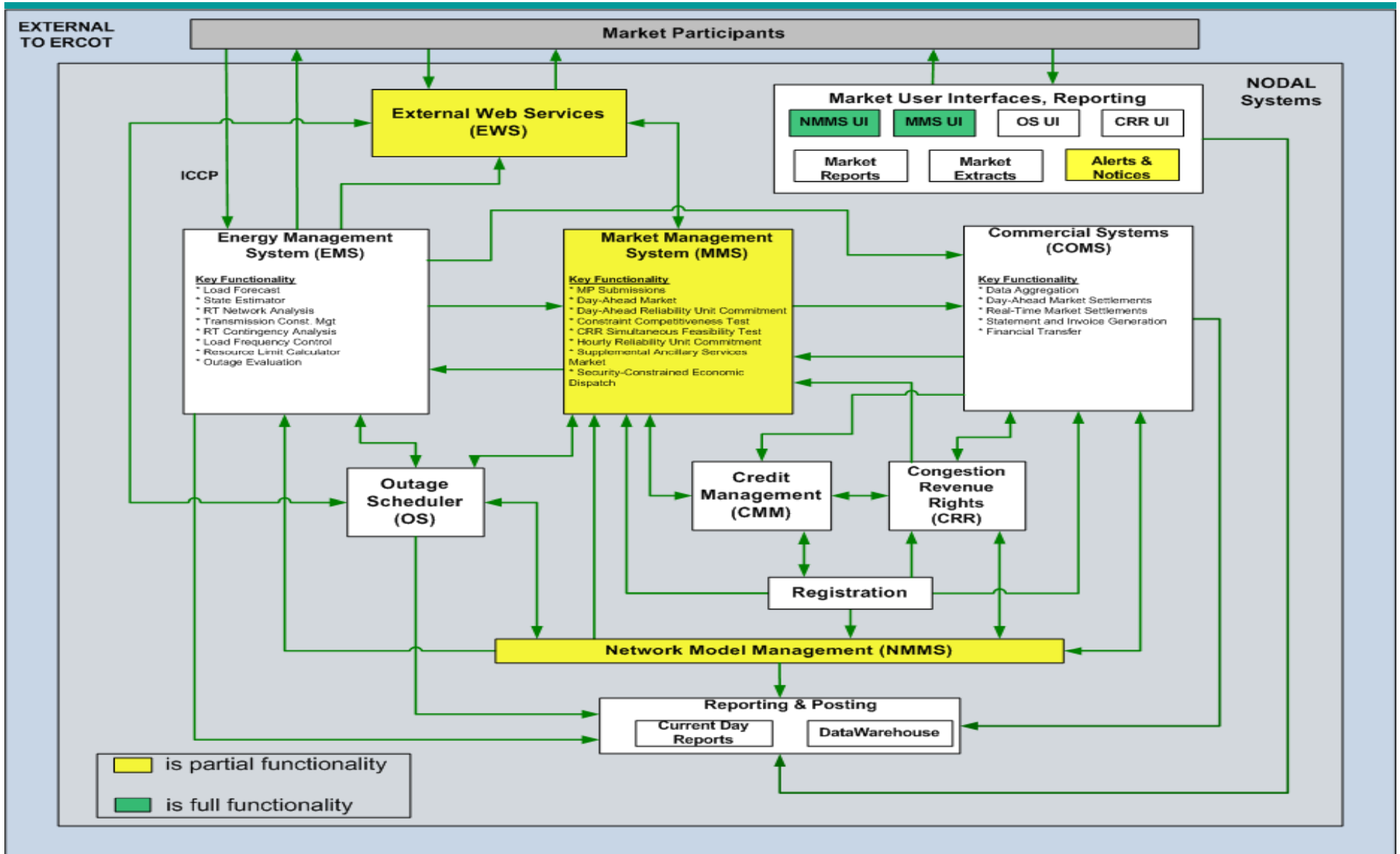
Today's Agenda

- **Program Status**
- **Defects Reporting & Program Risks**
- **Traceability**
- **Market Readiness**
- **Financials**
- **Appendix**

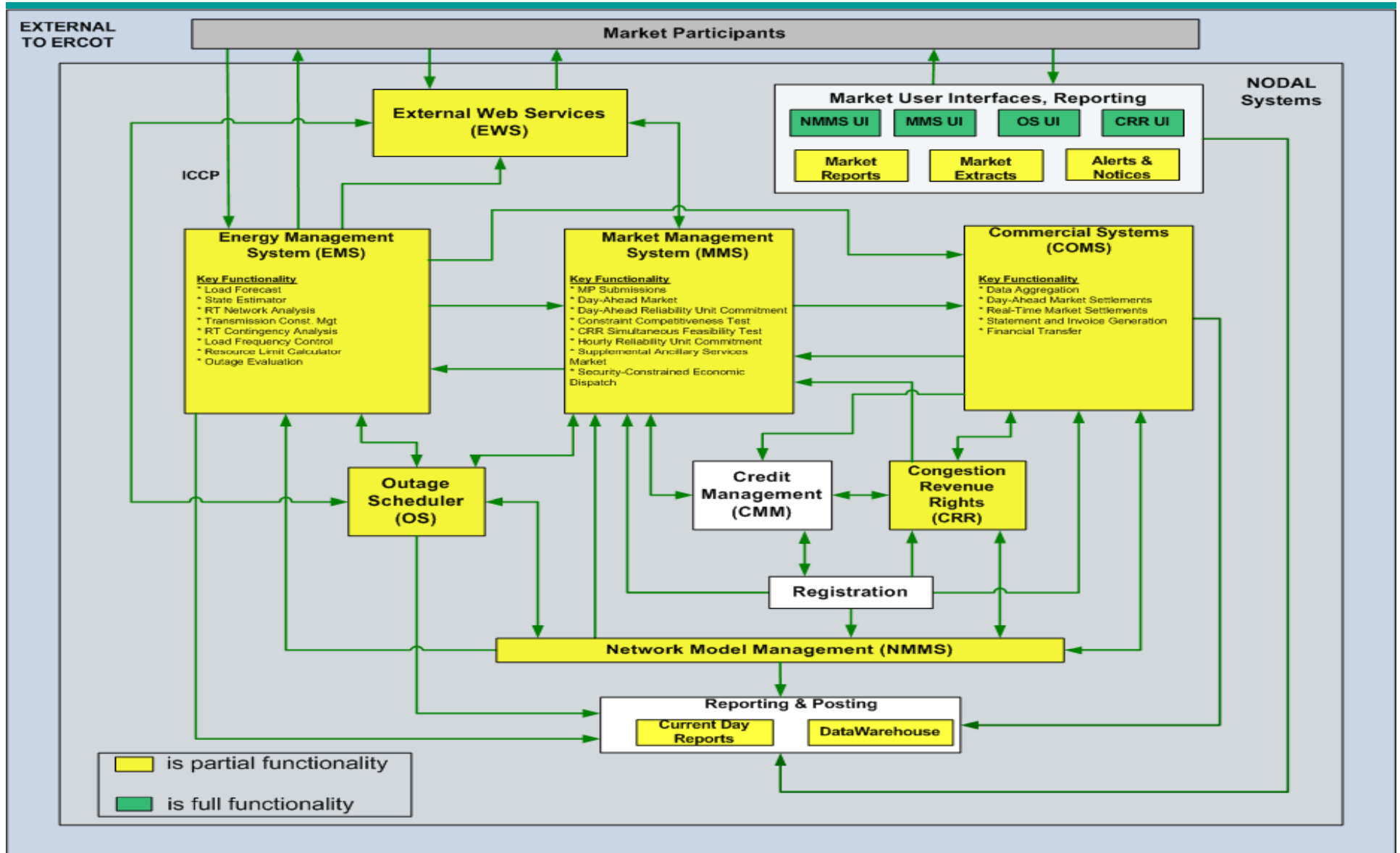
Nodal Systems Blueprint



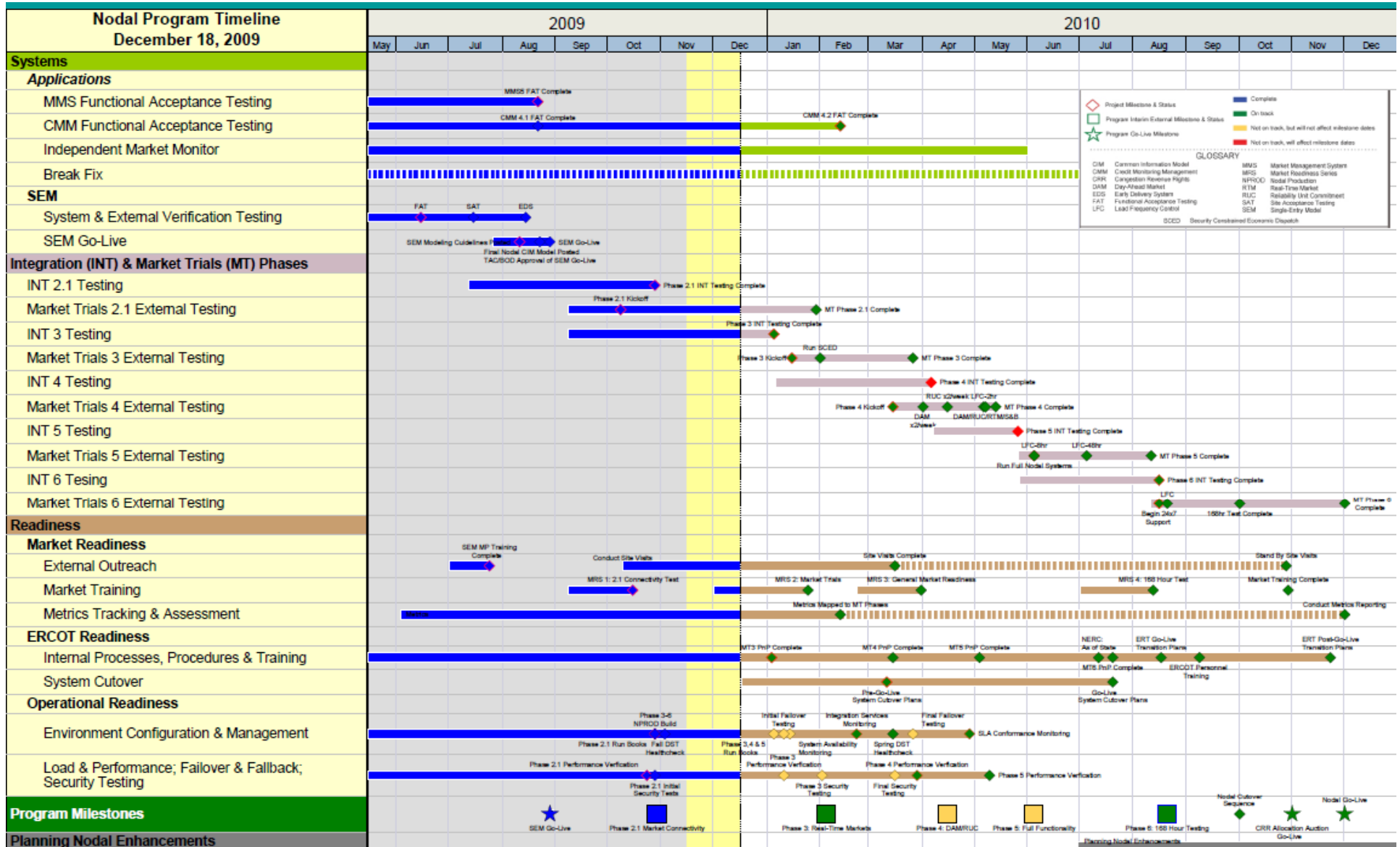
Nodal Systems Blueprint - Today



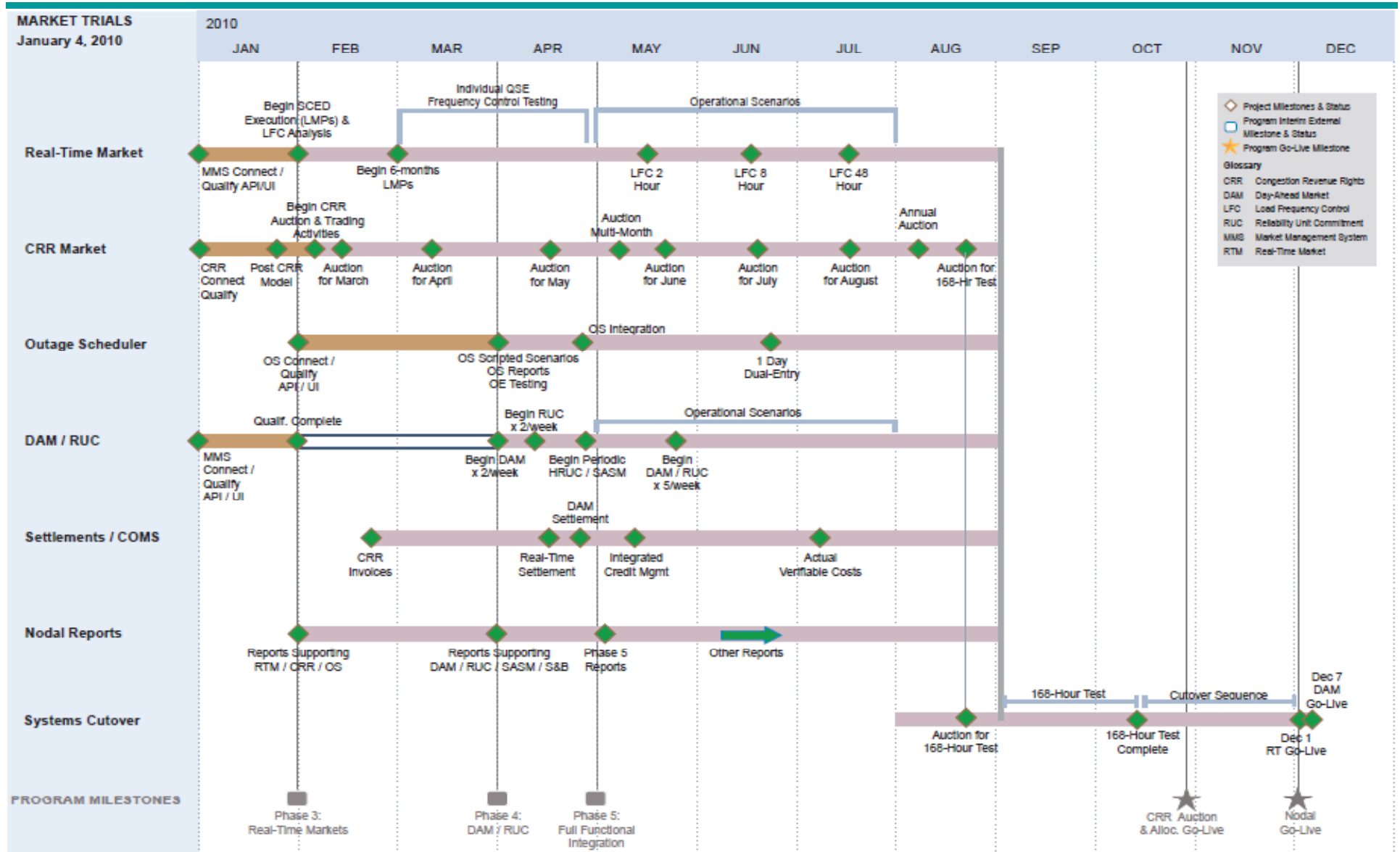
Nodal Systems Blueprint - Market Trials



Integrated Nodal Timeline



2010 Market Trials Timeline



Next Delivery Milestones

- **Real Time Market (RTM)**

- Jan 4, 2010 – Jan 29, 2010: Mandatory Connectivity Qualification

- After completing early voluntary qualification with 19 QSE's, ERCOT will reopen the mandatory qualification window in for the month of Jan.
- QSEs and QSEs w/ Resources will be asked to complete a transaction checklist and notify ERCOT when complete
- ERCOT will then confirm the submittals

- Jan 8, 2010: Start of the weekly RTM Market Calls

- The bi-weekly market calls held in all of 2009 will now be held weekly starting Jan 8, 2010
- There will be a call for each functional area. The RTM call will be held Fridays at 9:00am Information on accessing the call is located on the ERCOT calendar.

- Feb 1, 2010 – Feb 28, 2010: SCED Execution with Price, Base Point and continued LFC analysis

- QSEs with resources will start submitting COPs, Three Part Supply Offers and Output Schedules (with optional INC/DEC) to support SCED solutions
- ERCOT will be exercising price validation using price validation software as well as continuing market outreach on telemetry quality

- March 1, 2010 – Sept 1, 2010: 6 Month LMP

- Once ERCOT completes LMP analysis and can claim reasonable LMPs, 6 Month LMP begins

Next Delivery Milestones

- **CRR Market Trials**

- Jan 4, 2010 – Jan 29, 2010: Mandatory Connectivity Qualification for all registered CRR Account Holders (CRRAH)
 - CRRAHs will be asked to complete a transaction checklist and notify ERCOT when complete
 - ERCOT will then confirm the submittals
- Jan 8, 2010: Start of the weekly CRR Market Calls
 - These weekly calls will serve as the primary forum for communication and providing answers to common questions to the CRRAH Nodal PMs and their teams.
 - There will be a call for each functional area. The CRR call will be held Fridays at 10:30am. Information on accessing the call is located on the ERCOT calendar.
- Feb 1, 2010 – Feb 28, 2010: Begin Auction and Trading Activities
 - Starting in Feb, 2010, registered CRRAH will have the ability to:
 - Download and review the CRR Model for the following month
 - Participate in Monthly Auction for the following month (e.g. Feb for the March Auction)
 - Execute bi-lateral trades
 - Review Auction Invoices
 - Submit PCRR (pre-assigned) nominations (NOIE)
 - ERCOT will:
 - Execute business processes in support of the CRR Auction and invoicing
 - Post the CRR Model for the following Month
 - Review and post Auction results / Auction Invoices
 - Run PCRR Allocations (NOIE)

Nodal Program Dashboard

	Delivery Area	Project	Milestone Description	Project Milestone Link	Schedule Date	This Weeks Status
■	Program Milestone	PMO/DA	PHASE 2.1 - MARKET CONNECTIVITY	Phase 2.1 Market Connectivity	10/28/09	Complete
◆	Integration Testing	INT	Phase 2.1 Integration Testing	MTPHASE-2.1 (EWS, MMS, Ufs)	10/28/09	Complete
◆	Market Trials	MT	Phase 2.1 Kick-off Meeting	Phase 2.1 Kick-Off Meeting	10/8/09	Complete
◆	Market Training	ERT	MRS 1: 2.1 Connectivity Test	MRS 1: 2.1 Connectivity Test	10/15/09	Complete
◆	Env. & Config Management	INF/ORT	Phase 2.1 NPROD Build	NProd Build	9/25/09	Complete
◆	Env. & Config Management	INF/ORT	Phase 2.1 Run Books, Monitoring	MT 2.1 Run Books	10/28/09	Complete
◆	L&P; Failover & Fallback; Security	INF/ORT	Phase 2.1 Security Testing (rd 1)	Phase 2.1 Initial Security Tests Complete	10/28/09	Complete
◆	L&P; Failover & Fallback; Security	INF/ORT	Phase 2.1 Performance Testing	Phase 2.1 Performance Verification Complete	10/23/09	Complete
■	Program Milestone	PMO/DA	PHASE 3 - Real-Time Markets	Phase 3: Real-Time Markets	2/4/10	Green
◆	Integration Testing	INT	Phase 3 - INT Testing Complete	MTPHASE-3 (RTM, SCED, CRR)	1/4/10	Green
◆	Market Trials	MT	Phase 3 Kick-off Meeting	Phase 3 Kickoff	1/15/10	Green
◆	Market Training	ERT	MRS 2: Market Trials	MRS2: Market Trials	1/25/10	Green
◆	Internal Process, Procedures, Training	ERT	MT3 PnP Complete	Process and Procedures Drafted for MT3	3/18/10	Green
◆	Env. & Config Management	INF/ORT	Phase 3-6 NPROD Build	Phase 3-6 NPROD Build Complete	10/28/09	Complete
◆	Env. & Config Management	INF/ORT	Phase 3,4,&5 Run Books	MT 3, 4 & 5 Run books	1/5/10	Green
◆	Env. & Config Management	INF/ORT	System Availability Monitoring	System Availability Monitoring Complete	1/14/10	Green
◆	L&P; Failover & Fallback; Security	INF/ORT	Performance Verification	Phase 3 Performance Verification Complete	1/11/10	Green
◆	L&P; Failover & Fallback; Security	INF/ORT	Phase 3 Security Testing	Phase 3 Security Testing Complete	2/2/10	Yellow
■	Program Milestone	PMO/DA	PHASE 4 - DAM/RUC	Phase 4: DAM/RUC	4/14/10	Yellow
◆	Integration Testing	INT	Phase 4 - INT Testing Complete	MTPHASE-4 (DAM/RUC)	4/5/10	Red
◆	Market Trials	MT	Phase 4 Kick-off Meeting	Phase 4.0 Kickoff	3/15/10	Green
◆	Market Trials	MT	MT Phase 3 Complete	MT3-Market Trial Activities	3/16/10	Green
◆	External Outreach	ERT	Conduct Site Visits	Conduct Site Visits (Start)	3/16/10	Complete
◆	External Outreach	ERT	Site Visits Complete	Site Visits Complete	3/31/10	Green
◆	Market Training	ERT	MRS 3: General Market Readiness	MRS3: General Market Readiness	2/12/10	Green
◆	Metrics Tracking & Assessment	ERT	Metrics Mapped to MT Phase	Metrics Mapped to MT Phases	3/15/10	Green
◆	Internal Process, Procedures, Training	ERT	MT4 PnP Complete	All MT4 L-1 to L-4 Updated Process and Procedures	1/11/10	Green
◆	Env. & Config Management	INF/ORT	Initial Failover Testing	Initial Failover Testing Complete	3/26/10	Green
◆	Env. & Config Management	INF/ORT	Final Failover Testing	Final Failover Testing Complete	2/22/10	Green
◆	Env. & Config Management	INF/ORT	Integration Services Monitoring	Integration Services Monitoring Complete	3/16/10	Green
◆	L&P; Failover & Fallback; Security	INF/ORT	Final Security Testing	Final Security Testing Complete	3/29/10	Yellow
◆	L&P; Failover & Fallback; Security	INF/ORT	Phase 4 Performance Verification	Phase 4 Performance Verification Complete	3/29/10	Green
■	Program Milestone	PMO/DA	PHASE 5 - Full Functionality	Phase 5: Full Functionality	6/4/10	Yellow
◆	Integration Testing	INT	Phase 5 - Integration Testing Complete	MTPHASE-5 (FULL INTEGRATION)	5/26/10	Red
◆	Market Trials	MT	MT Phase 4 Complete	MT4-Market Trial Activities	5/13/10	Green
◆	Internal Process, Procedures, Training	ERT	MT5 PnP Complete	All MT5 L-1 to L-4 Updated Process and Procedures	5/4/10	Green
◆	Env. & Config Management	INF/ORT	Fall DST Testing	Fall DST Testing	11/3/09	Complete
◆	Env. & Config Management	INF/ORT	Spring DST Testing	Spring DST Testing	3/15/10	Green
◆	Env. & Config Management	INF/ORT	SLA Conformance Monitoring	SLA Conformance Monitoring Complete	4/28/10	Green
◆	L&P; Failover & Fallback; Security	INF/ORT	Phase 5 Performance Verification	Phase 5 Performance Verification Complete	5/10/10	Green
■	Program Milestone	PMO/DA	PHASE 6 - 168 Hour Testing	Phase 6:168 Hour Testing	8/20/10	Green

Program Milestone Schedule Mitigation

Phase 4: DAM / RUC

Integration Testing Schedule has been mitigated

Cause:

- **Environment Issues (Power Outage, Storage Issues)**
- **Planning delays due to Phase 2.1 and Phase 3 delivery focus**

Mitigation Strategy:

- **Scheduled more work to occur during the holiday period slowdown(12/18-1/4)**
- **Authorize resource overtime for Phase 4 test execution**
- **Reduce the number of Operating Day (OD) runs planned through the end of the year to more effectively leverage testing and support resources**
- **Prioritize and pull forward more comprehensive End-to-End scenarios where applicable**

Program Milestone Schedule Mitigation

Phase 5: Full Functionality

Integration Testing Schedule has slipped 2 weeks

Cause:

- **Schedule impact from Phase 4 slippage**
- **Phase 5 Planning delays and a large reporting scope**
- **Comprehensive Test Case development with Business**

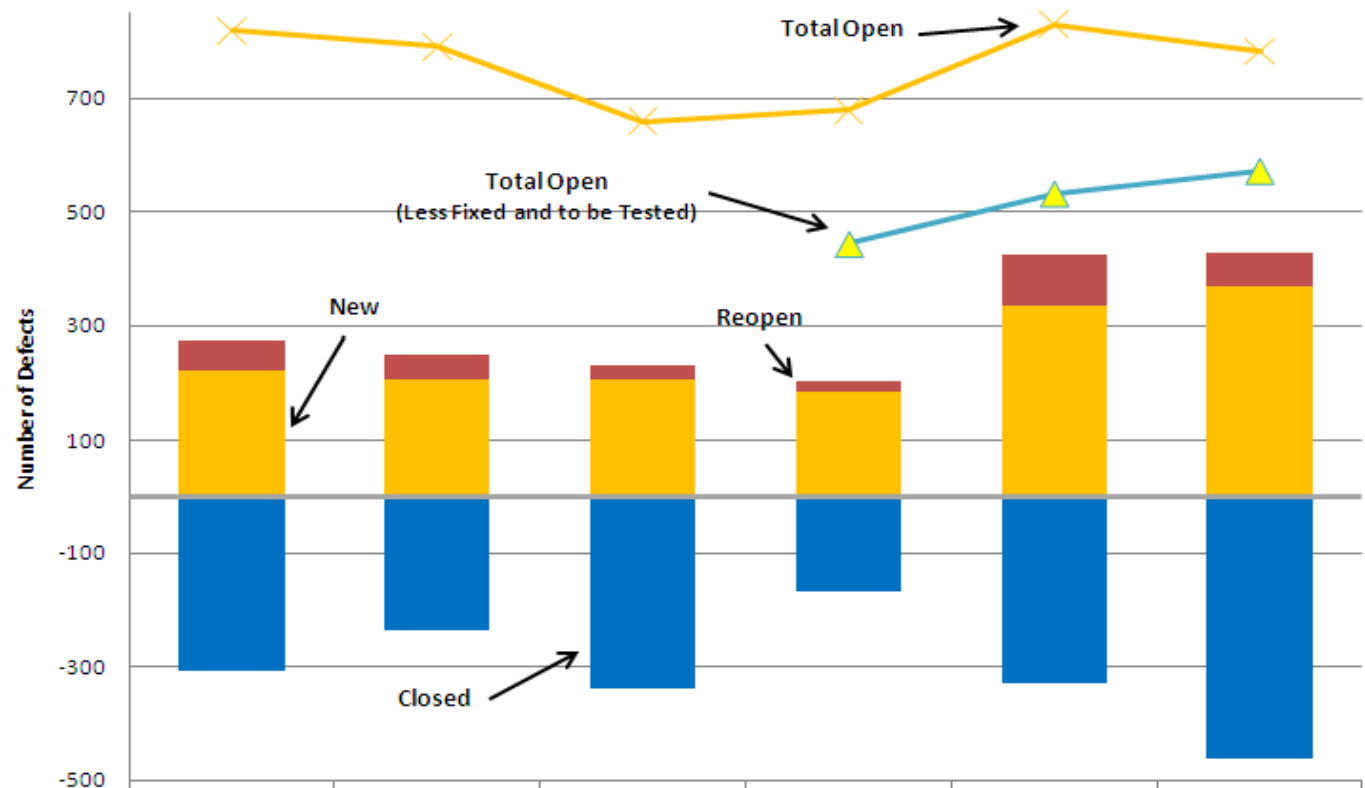
Mitigation Strategy:

- **Continue to leverage overtime for Phase 5 test execution**
- **Phase in the delivery of reports during Market Trials**
- **Prioritize Testing to ensure the critical functionality and reports are completed first**
- **Leverage multiple environments and coordinated planning to continue Operating Day (OD) runs while performing issue analysis and Quality of Solution testing in a parallel environment**
- **Prioritize must have End-to-End scenarios**

Nodal Defects Trends - High Priority (Must Fix Before Go-Live)

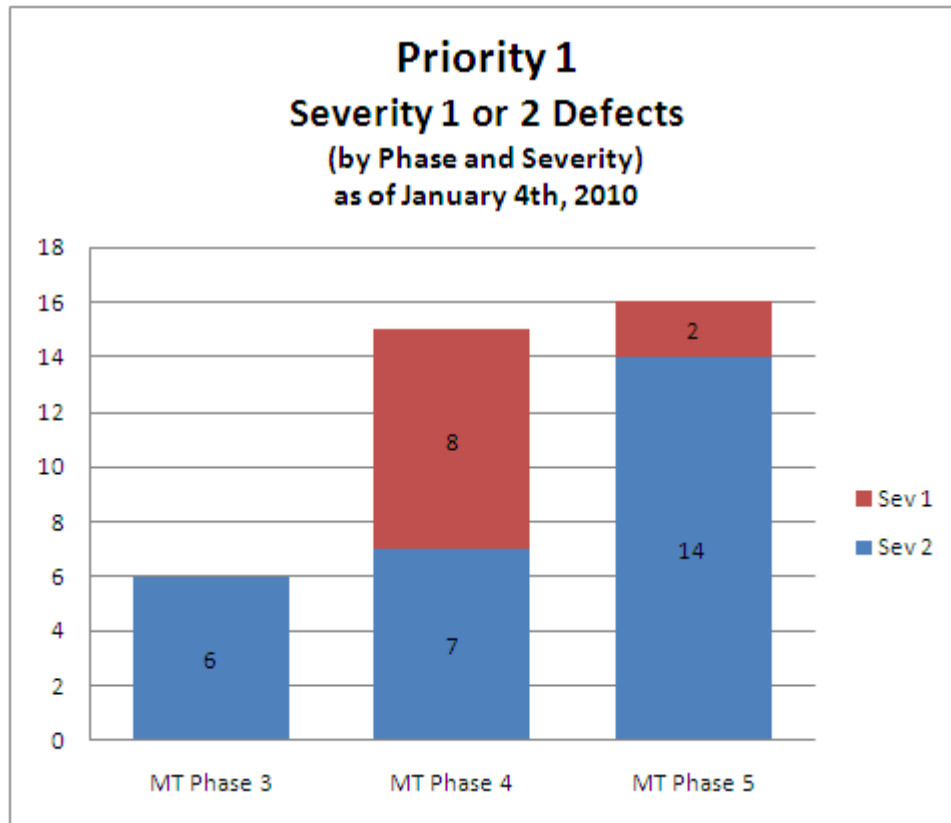
- Defect counts increased as expected due to planned software migrations into Nodal iTest and extensive integration testing efforts.

**Nodal Defects
Total Open vs. Monthly Variation**



	July	August	September	October	November	December
Closed	-307	-235	-339	-167	-328	-464
Reopened	52	44	24	18	91	61
New	223	207	207	187	333	367
Total Open	819	791	659	679	830	783
Total Open - (Fixed & to be Tested)				443	532	572

Nodal Defect Reporting



Severity 1 – High Level Description

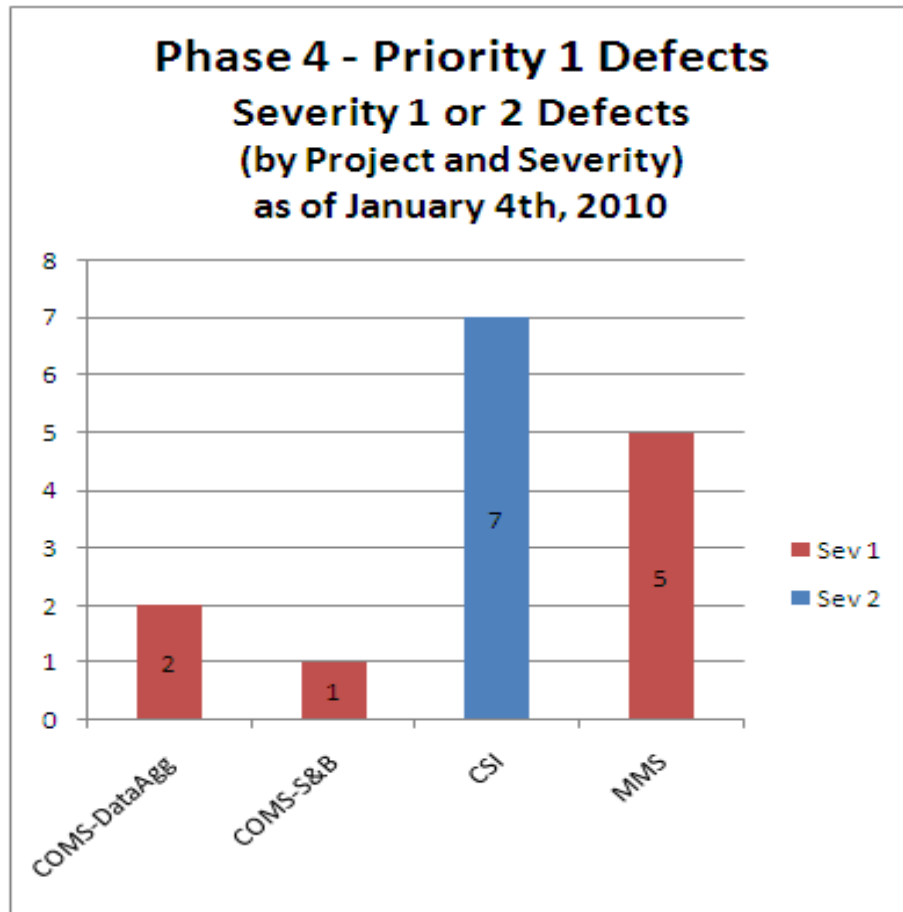
Phase 3:
None

Phase 4:
Integration Processing (1) – Open
Data Error (1) – New
Configuration Issue (1) – Test
Calculation Errors (5) – Open

Phase 5:
Report Generation (1) – Open
Data Integration (1) – Re-Open

*Systems & Testing teams
are focused on the most
important defects.*

Nodal Defect Reporting



Market Trials delivery risk is being managed through a focus on key systems.

Severity 1 – High Level Description

Market Trials Phase 3:

None

Market Trials Phase 4 by Project:

MMS: Calculation Errors (5) – Open

COMS-S&B: Data Error (1) – New

COMS-Data Agg:

Configuration Issue (1) – Test

Data Error (1) – New

Nodal Program Risks & Issues

Risk/Issue	Impacted Milestone	Target	Status
<p>Integration Testing - Risk <i>Continued risk around technology delivery of business systems integration due to complexity and continuing maturing of application and data dependencies.</i></p>	<p>Program</p>	<p>May 2010</p>	<ul style="list-style-type: none"> • Phase 3 On track; planning complete, execution in progress. • Execution of work plan, with specific focus on January Market Trials functionality, under way. • Later phase schedules have slipped due to environment issues and focus on Phase 2.1, Phase 3 delivery.
<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>Program</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. • Phase 3 and 4 OLA definitions in process.

Nodal Program Risks & Issues

Risk/Issue	Impacted Milestone	Target	Status
<p>Network Model Load Frequency <i>Model updates for Nodal will require more attention and coordination by both MPs and ERCOT to ensure alignment. ERCOT has determined that a bi-monthly Nodal database load represents the most manageable solution for updating the real-time environment when Nodal begins in December 2010.</i></p>	<p>Program</p>	<p>July 2010</p>	<ul style="list-style-type: none"> • An initial Network Model load process has been established and is being verified. • Impact and process discussions started with Internal & External Stakeholders.
<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>Phase 3</p>	<p>Feb 2010 (Change control submitted)</p>	<ul style="list-style-type: none"> • Work underway to trace protocols, requirements and business processes alignment analyses are in progress. • SMEs added to the team in May.
<p>Credit Management – Business & Technical Exposure <i>Credit Management rules and exposure calculations will change significantly with the implementation of the Nodal Program. During the requirements and design phase of the program stakeholder concerns have been expressed that may result in requested system changes as the program moves into Market Testing of Credit Management.</i></p>	<p>Phase 5</p>	<p>July 2010</p>	<ul style="list-style-type: none"> • ERCOT business and Nodal Program reviewing Credit concerns and next steps.

Earned Value for the Nodal Program from March - December

To be updated and provided before SNPC meeting.



Traceability

Betty Day
Program Control & Review

Special Nodal Program Committee
18 January 2010

Protocol Traceability Effort Update

Tier 1 Sections					
	PTE Traced Items	Research Items	In Progress: Business Procedures	In Progress: Reports/ Extracts	PTE Alignment Items
Section 3 – Management Activities for the ERCOT system (Dec NATF)	928	166	550	193	67
Section 4 – Day Ahead Operations (Nov NATF)	635	10	65	75	3
Section 5 – Transmission Security Analysis and RUC (Nov NATF)	166	17	53	15	10
Section 6 – Adjustment Period and Real-Time Operations (Jan NATF)	926	50	485	52	TBD
Section 7 – Congestion Revenue Rights (Oct NATF)	445	26	58	27	1
Section 8 – Performance Monitoring (Jan NATF)	226	84	206	44	TBD
Section 9 – Settlement & Billing (Nov NATF)	408	0	128	55	2
Section 16.11 – Financial Security for Counter Parties (Dec NATF)	198	2	33	25	3
Section 17 – Market Monitoring & Data Collection (Dec NATF)	25	7	21	1	6
Total	3957	362	1599	487	92



Protocol Traceability Results Update

- **Status as of December 23th 2009:**
 - **Reported to NATF on Sections 3, 4, 5, 7, 9, 16.11, 17**
 - **92 Alignment items identified to date**
 - **Proposed action on Alignment items:**
 - **10 – revise business procedure**
 - **17 – NPRR**
 - **4 – handbook**
 - **4 – revise business requirement**
 - **1 – draft a service level agreement**
 - **56 – still under discussion internally for recommended resolution**
 - **Sections 6 and 8 will be presented to NATF in January**

Requirements to Test Artifact Tracing

- Status as of December 1st 2009:**

Requirements to Test Artifacts			
Project	# of Requirements	# and Type of Traced Test Artifacts	Comments
Energy Management System (EMS)	192	*427 Test Cases/Scripts	Complete as of July 2009 - numbers pending final analysis
Market Management System (MMS)	*231	*1328 Test Cases/Scripts	Complete as of Oct. 2009 - numbers pending final analysis
Outage Scheduler (OS)	*21	*9 Test Cases	Complete as of Jan. 2009 – final analysis in review
Commercial Systems (COMS)	*2160	*8444 Test Cases/Scripts	Under analysis – pending team review of Registration and Commercial Systems Integration Information artifacts
Congestion Revenue Rights (CRR)	50	32 Test Cases	Complete as of Nov. 2009
Credit Monitoring Management (CMM)	*1300	*3000 Test Scripts	In progress - CMM Build 4.2 to be finalized for final analysis of number of requirements & test artifacts
Network Model Management System (NMMS)	*152	*210 Test Cases	Team review of existing documents in progress
Market Information Systems (MIS)	*345	*1235 Test Scripts	Being Reviewed for Final Analysis
Reports and Extracts (EDW, CDR)	*55	*1200 Test Scripts	Team review of existing documents in progress
*indicates that number of requirements or test artifacts are subject to change with completion of artifact tracing			

Trace Report Executive Summary

To be updated and provided before SNPC meeting.

Next Steps

- **Questions about a research item or alignment item should be forwarded via e-mail to NodalMarketTransition@ercot.com. Subject line “Protocol Traceability Question”**
- **Planned dates for Web Ex review**
 - Mid-January – sections 6 & 8



Market Readiness

Vikki Gates

Readiness & Transformation

Special Nodal Program Committee

18 January 2010

Participant Readiness Touch Points

2010

	January	February	March	April
Meetings	<ul style="list-style-type: none"> • NATF 1/5 	<ul style="list-style-type: none"> • NATF 2/2 	<ul style="list-style-type: none"> • NATF 3/2 	<ul style="list-style-type: none"> • NATF 4/6
Training	<ul style="list-style-type: none"> • Nodal 101 • LSE 201 • Generation 101, 201 • CRR –Online ◆ Settlement Workshop • NMMS 	<ul style="list-style-type: none"> • Nodal 101 • LSE 201 • Basic Training • Generation 101, 201 • CRR – instructor-led ◆ Settlement Workshop • Operations Seminar 	<ul style="list-style-type: none"> • Nodal 101 • LSE 201 • Basic Training • Generation 101, 201 • CRR – instructor-led ◆ Settlement Workshop • Operations Seminar 	<ul style="list-style-type: none"> • Nodal 101 • Trans 101 • Generation 101, 201 • CRR – instructor-led • NMMS • Economics of LMP
Outreach	<ul style="list-style-type: none"> • 7 site visits • MP 6 –Telemetry & MP 14 –RARF launched ◆ 1/28 MRS #2 	<ul style="list-style-type: none"> • 5 site visits • Additional Phase 3 metrics • Standby site visits mitigation approach 	<ul style="list-style-type: none"> • 4 site visits • Scheduled Site Visits conclude • MRS #3 	<ul style="list-style-type: none"> • Standby site visits • Phase 4 metrics launch
Market trials	<ul style="list-style-type: none"> • Start weekly calls ■ Mandatory QSE/CRRRAH re-qualification begins • Phase 3 Handbooks <ul style="list-style-type: none"> • COMS • Outage Scheduler • CRR • RTM/LFC 	<ul style="list-style-type: none"> • Weekly calls • Phase 3 Market Trials initiates • QSE OS qualification • Phase 4 Handbooks <ul style="list-style-type: none"> • DAM/RUC • MIS • Credit 	<ul style="list-style-type: none"> • Weekly calls • Phase 3 Execution • Phase 4 Handbooks <ul style="list-style-type: none"> • Updates to prior handbooks • LFC individual QSE tests 	<ul style="list-style-type: none"> • Weekly calls • Phase 4 Market Trials initiates

Market Participant Site Visits

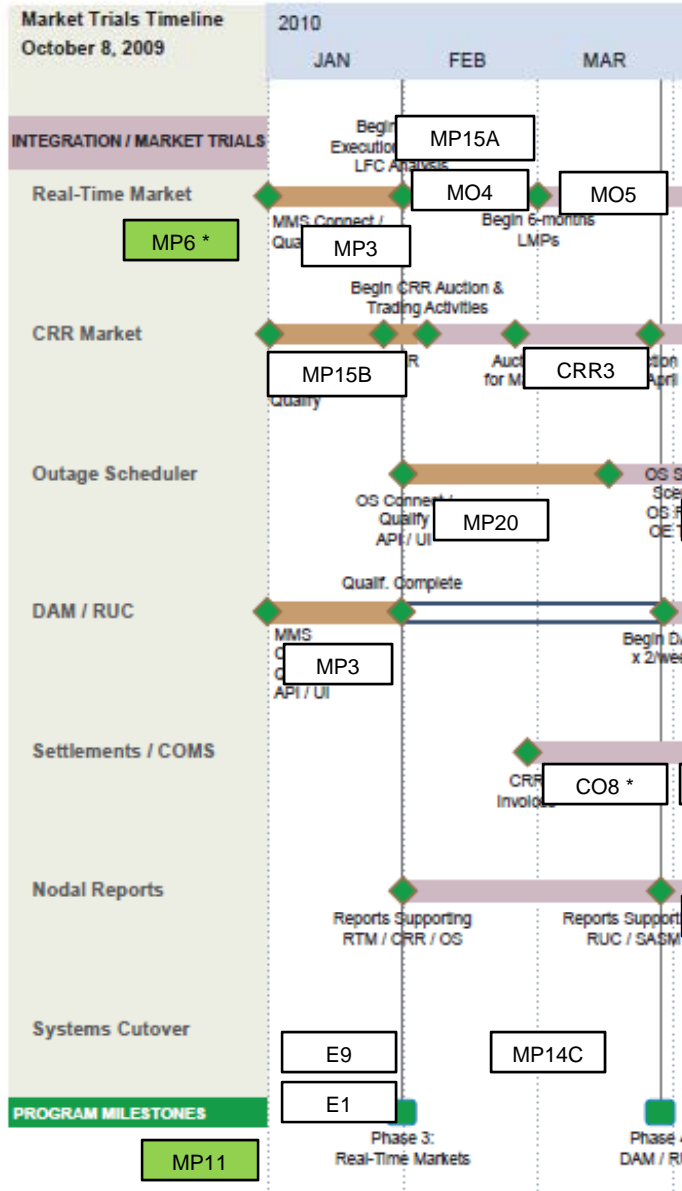
Confirmed Completed

20 Outreach Site Visits have been completed

Entity	Date	Entity	Date
<input checked="" type="checkbox"/> LOWER COLORADO RIVER AUTHORITY	9-Oct	<input checked="" type="checkbox"/> NRG TEXAS POWER	15-Dec
<input checked="" type="checkbox"/> CALPINE CORP	14-Oct	<input checked="" type="checkbox"/> DIRECT ENERGY LP	5-Jan
<input checked="" type="checkbox"/> AUSTIN ENERGY	20-Oct	<input checked="" type="checkbox"/> CPS ENERGY	6-Jan
<input checked="" type="checkbox"/> CITY OF GARLAND	21-Oct	<input type="checkbox"/> BTU (Bryan Texas Utilities) SERVICES	13-Jan
<input checked="" type="checkbox"/> GDF SUEZ ENERGY MARKETING	29-Oct	<input type="checkbox"/> TOPAZ POWER MANAGEMENT	19-Jan
<input checked="" type="checkbox"/> ANP FUNDING	3-Nov	<input type="checkbox"/> OCCIDENTAL	20-Jan
<input checked="" type="checkbox"/> LUMINANT ENERGY	5-Nov	<input type="checkbox"/> SHELL ENERGY	21-Jan
<input checked="" type="checkbox"/> INVENERGY WIND DEVELOPMENT	10-Nov	<input type="checkbox"/> TENASKA POWER SERVICES	26-Jan
<input checked="" type="checkbox"/> EXELON	11-Nov	<input type="checkbox"/> OPTIM ENERGY	27-Jan
<input checked="" type="checkbox"/> AMERICAN ELECTRIC POWER SERVICE	12-Nov	<input type="checkbox"/> APX	3-Feb
<input checked="" type="checkbox"/> CONSTELLATION ENERGY	17-Nov	<input type="checkbox"/> NEXTERA ENERGY	11-Feb
<input checked="" type="checkbox"/> PSEG ENERGY RESOURCES	18-Nov	<input type="checkbox"/> WIND PANEL (Houston)	16-Feb
<input checked="" type="checkbox"/> J ARON	19-Nov	<input type="checkbox"/> RETAIL PANEL (Houston)	17-Feb
<input checked="" type="checkbox"/> FULCRUM POWER	2-Dec	<input type="checkbox"/> TRI-EAGLE ENERGY	18-Feb
<input checked="" type="checkbox"/> EAGLE ENERGY PARTNERS I LP	3-Dec	<input type="checkbox"/> XTEND ENERGY LP	2-Mar
<input checked="" type="checkbox"/> STEC	9-Dec	<input type="checkbox"/> EC AND R QSE	9-Mar
<input checked="" type="checkbox"/> BP ENERGY COMPANY	10-Dec	<input type="checkbox"/> BRAZOS ELECTRIC	10-Mar

Metrics Roadmap

Find descriptions at: <http://nodal.ercot.com/readiness/scorecard/metrics/index.html>



Market Participant Metrics Activated

Two metrics engaged:

● MP11 (RARF data): http://scorecard.ercot.com/mp/resource_sheet

- Resource Entities
 - Green overall
 - 97.69% of registered MW generation
 - 7 Yellow
 - 2.25% of registered MW generation
 - 1 Red
 - .06% of registered MW generation

● MP6 (Telemetry): http://scorecard.ercot.com/mp/group_metrics/2

- QSE with Resources
- Status lit up as each entity is confirmed (Green first)
- Over 61% of QSEs confirmed
- Represents 58% of total generation in the market



Monthly Financial Review

Don Jefferis

Special Nodal Program Committee

18 January 2010

Monthly Financial Review

Financials to be provided before SNPC meeting.

Questions ?

Appendix

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

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

Program Issue: Market Interaction Operating Level Agreements

◇ Potential Milestone Impact: Phase 3 RTM, Phase 4 DAM/RUC, Phase 5 Full, Go-Live

ISSUE: Market Interaction OLA		Need to determine service 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.		
Life Cycle State				
Plan	Manage			
Mitigation Plans		Who	Target Date	Current Status
1. ORT to define OLA with business and the market for each phase.		ORT, Market Trials	January	The team has already established an OLA for the Phase 2.1 release and is continuing to define Market OLAs for all subsequent Market Trial Phases as part of the ORT project plan. Phase 3 & 4 OLA Definitions in Progress.
2. PMO working with ORT to ensure consistent communications and work planning is in place to deliver the appropriate OLA and market throttling recommendations for each market release.		PMO, ORT, Market Trials	January, April, May, August	Continuous communication will be delivered to the internal and external stakeholders in support of each market delivery.

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	Nodal Program Release Scope and Schedule defined to ensure delivery. Program Status Report and Dashboard in place to track progress.

Program Issue: Network Model Load Frequency

◇ Potential Milestone Impact: Overall Program

ISSUE: Network Model Load Frequency		<i>Model updates for Nodal will require more attention and coordination by both MPs and ERCOT to ensure alignment. ERCOT has determined that a bi-monthly Nodal database load represents the most manageable solution for updating the real-time environment when Nodal begins in December 2010.</i>		
Life Cycle State				
Plan	Manage			
Mitigation Plans		Who	Target Date	Current Status
1. Define and document Initial Model Load Process.		ERT	Complete	Initial Process Documented, to be updated based on feedback from Testing and Operations teams.
2. Validate and improve the Model Load Process over the next several months based on a Zonal Bi-Weekly load timeframe.		INT, INF	January - March	Initial loads completed, targeting mid January Model load to align with Zonal schedule..

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	1/31/10	12/10/09 – SME continue work with business teams. Number of items for research taking longer than estimated. NATF web ex for 12/18/09 and mid-Jan to review full trace reports with Market Participants for Tier 1 sections.
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	12/10/09 – 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	12/10/09 – status reports provided to program, NATF, TAC, Special Nodal Committee monthly.

External Audit Status Summary

Audit	Audit Points Identified	Audit Points in Execution	Date to Complete Last Point
IBM Report 7	4	4 complete*	
Utilicast Report 8	6	1 in progress; 5 complete	2011
Utilicast Report 10 (Cleary)	17	5 in progress; 12 complete	6/1/10**

*** IBM Report is complete and has been verified by ERCOT Internal Audit**
**** Updated end date to reflect date to complete remaining audit points**

Audit Points to Address from IBM Report 7

ID	Description	Action Plan	Responsible Director	Responsible Manager	Target Date
IBM07-04	Support a Plan for a Sustainable Procedures Traceability Process	Procedure and SAS 70 Control ownership currently only exists at the individual department level. No function has overall accountability for maintenance of business process and procedure documentation. ERT will recommend a single Business Process owner in a new or an existing department be aligned with this responsibility. This function would have responsibility for managing process and procedure updates when Nodal Protocol Revision Requests (NPRRs) are approved.	B. Day	Karen Farley	Complete

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.	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	Bastrop DC in production Feb 2011. TCC3 in production May 2011.

Audit Points to Address from Utilicast Report 10-1

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.	Target Date
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	06/01/10

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	02/28/10