



Nodal Program Update

Jason Iacobucci

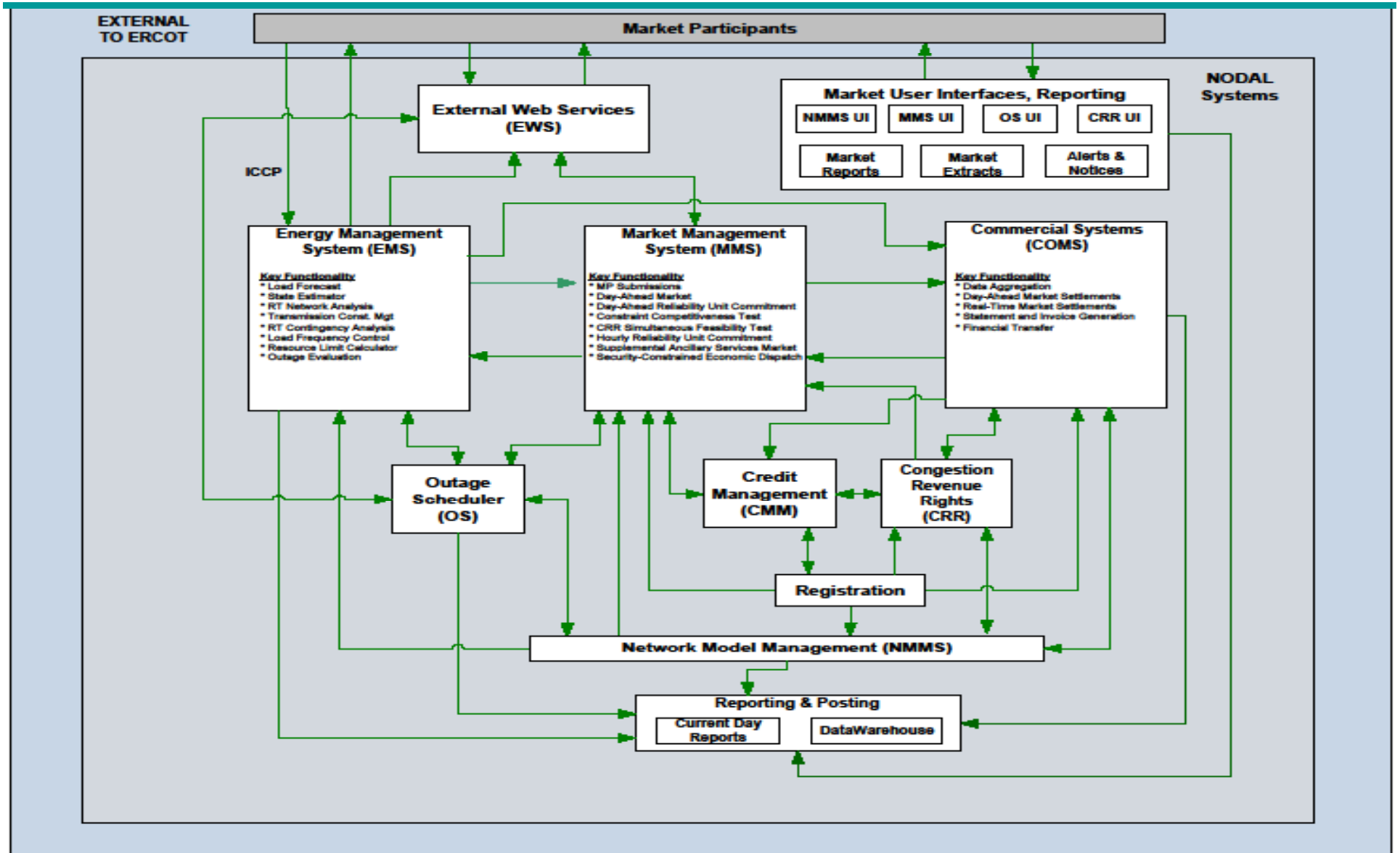
Nodal Program Manager

Special Nodal Program Committee
14 December 2009

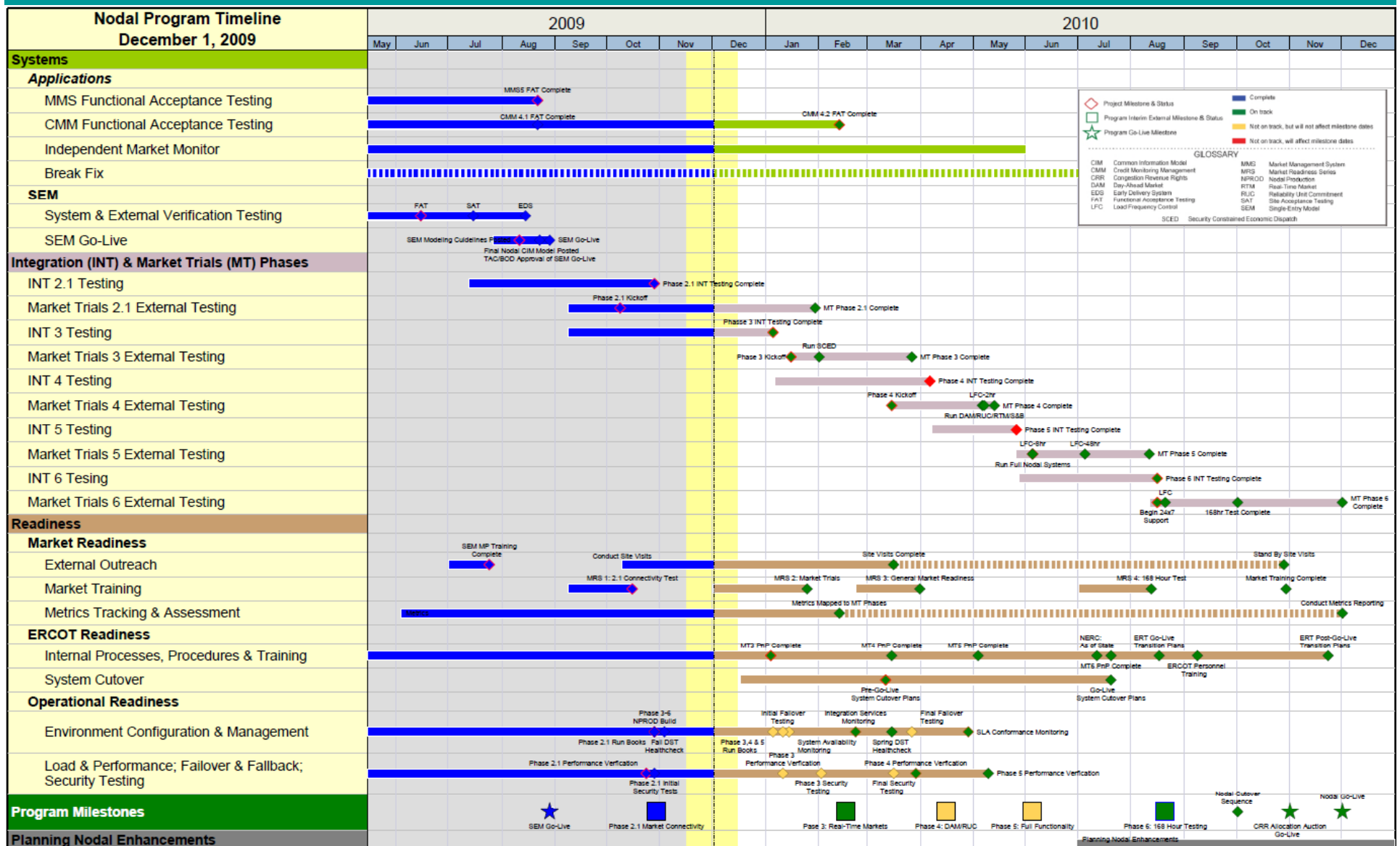
Today's Agenda

- **Program Status**
- **Go-live Change/ Enhancement Process**
- **Traceability**
- **Market Readiness**
- **Financials**
- **Appendix**

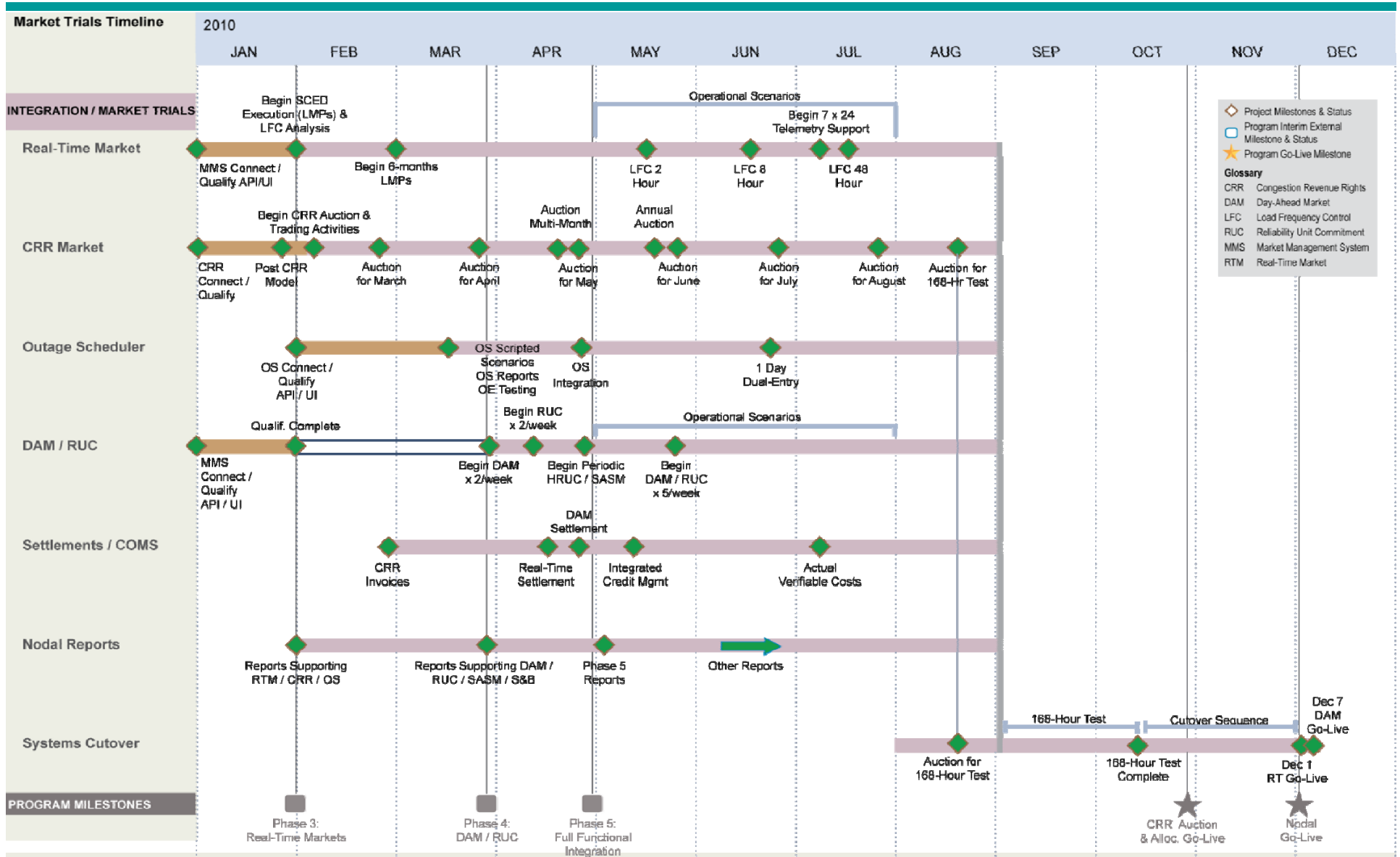
Nodal Systems Blueprint



Integrated Nodal Timeline



Integrated Nodal Timeline



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

■ Program Milestones

- Phase 4: DAM/RUC

◆ Phase 4 INT Testing Complete

- **Currently the Integration Testing Schedule is showing a slip of approximately 2 weeks for Phase 4 delivery to Market Trials due to:**
 - **Environment Issues (Power Outage, Storage Issues)**
 - **Planning delays due to Phase 2.1 and Phase 3 delivery focus**
- **Mitigation Plan**
 - **Schedule more work to occur during the holiday period slowdown(12/18-1/4)**
 - **Authorize resource overtime for Phase 4 test execution**
 - **Phase in the delivery of reports during Market Trials**
 - **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**
 - **Focus on effective and efficient Testing and Defect Management**

Program Milestone Schedule Mitigation

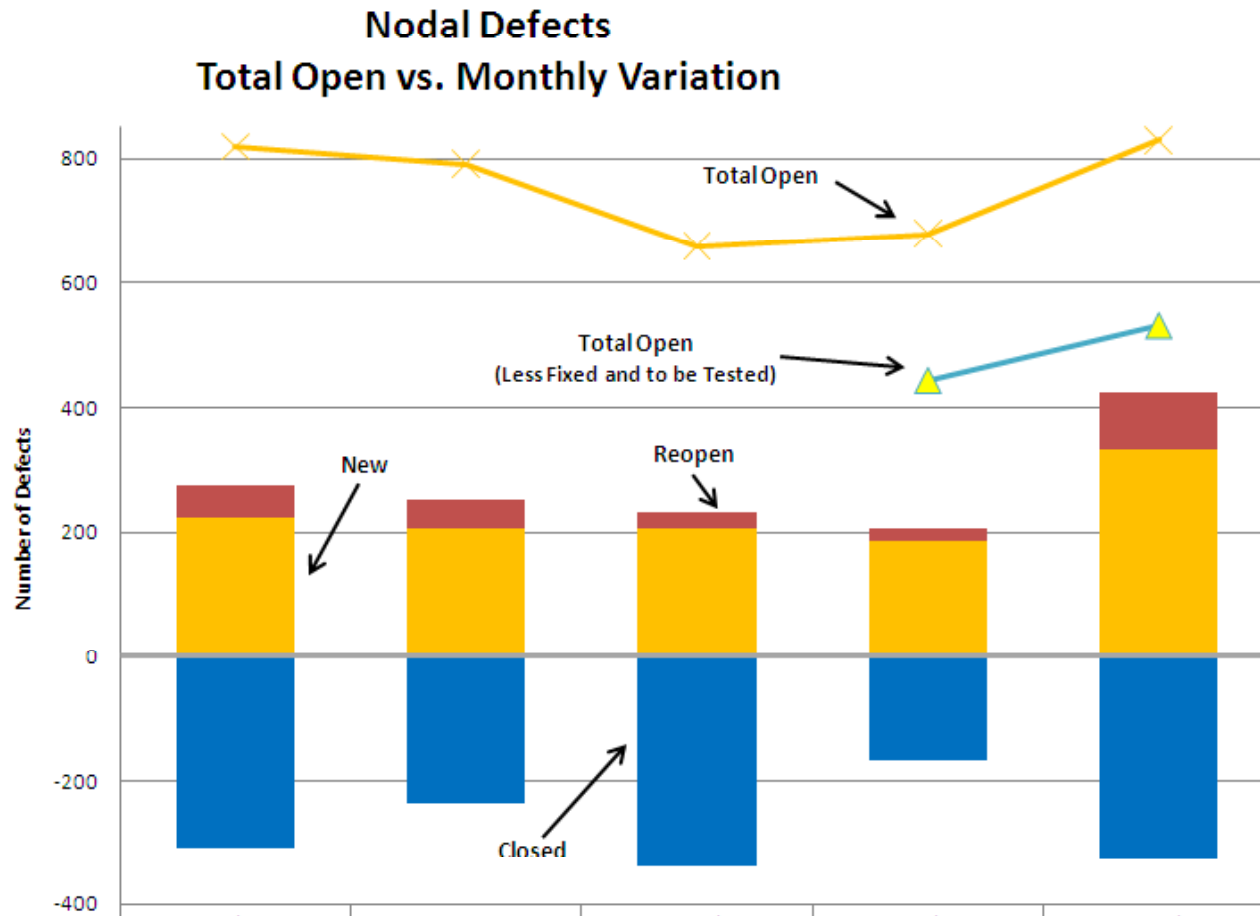
■ Program Milestones

- Phase 5: Full Functionality

◆ Phase 5 INT Testing Complete

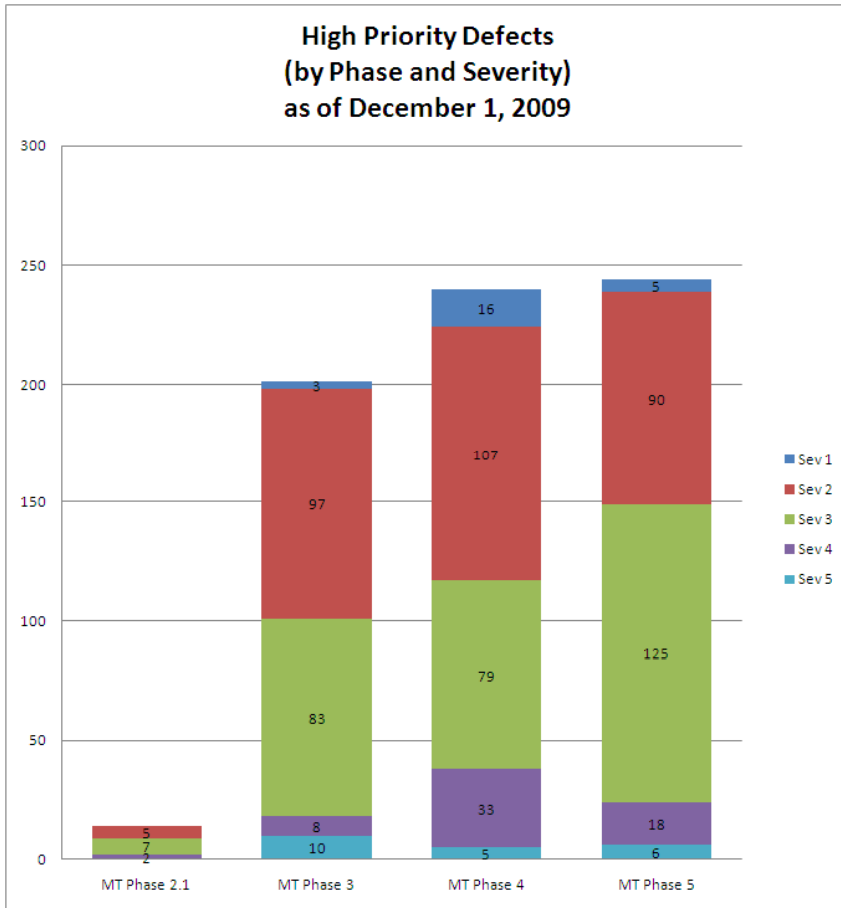
- **Currently the Integration Testing Schedule is showing a slip of approximately 4 weeks for Phase 5 delivery to Market Trials due to:**
 - **Schedule impact from Phase 4 slippage (2 weeks)**
 - **Phase 5 Planning delays and a large reporting scope**
 - **Comprehensive Test Case development with Business**
- **Mitigation Plan**
 - **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**
 - **Focus on effective and efficient Testing and Defect Management**

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

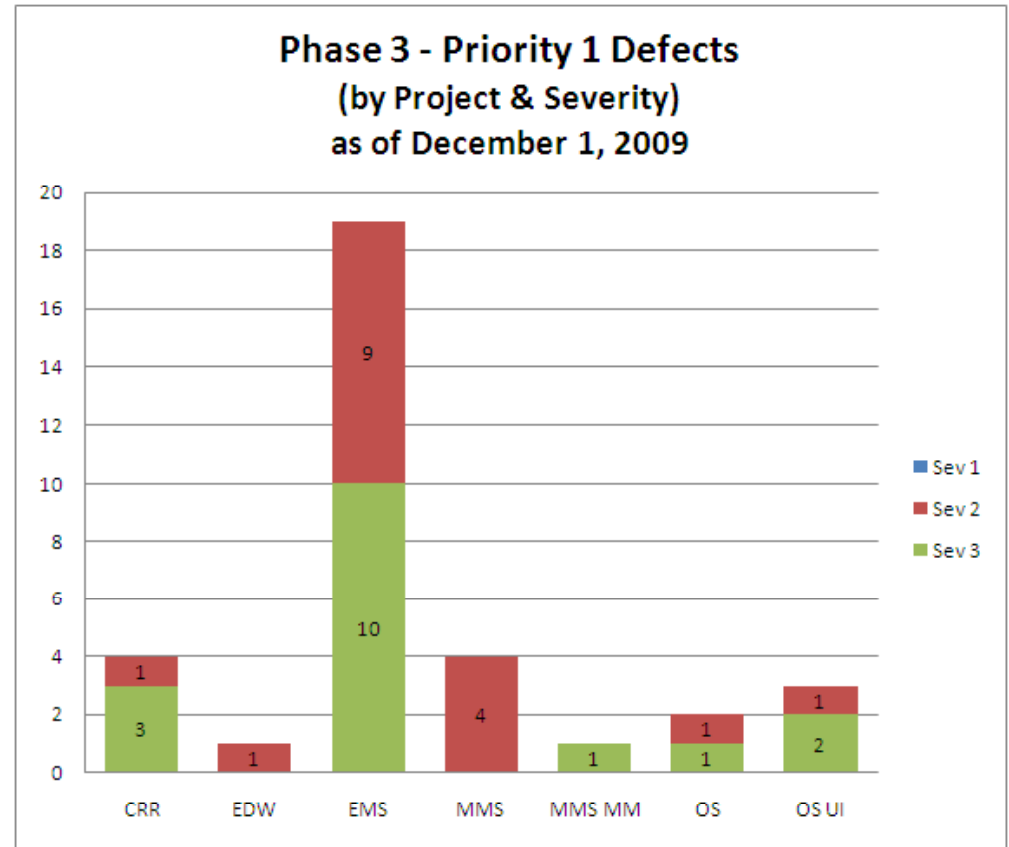


	July	August	September	October	November
Closed	-307	-235	-339	-167	-328
Reopened	52	44	24	18	91
New	223	207	207	187	333
Total Open	819	791	659	679	830
Total Open - (Fixed & to be Tested)				443	532

Nodal Defect Reporting



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



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

Priority 1 / Severity 1 - Defect Summary

Phase 3

None

Phase 4

MMS (5 defects)

Calculation errors in Price Validation Tool

EMS (1 defect)

RT Generation Alarm Functionality

COMS-S&B (3 defects)

Calculation errors resulting from multi-threading and data scenario processing

Phase 5

CMM (4 defects)

Calculation errors due to process timing; data population errors, Report errors

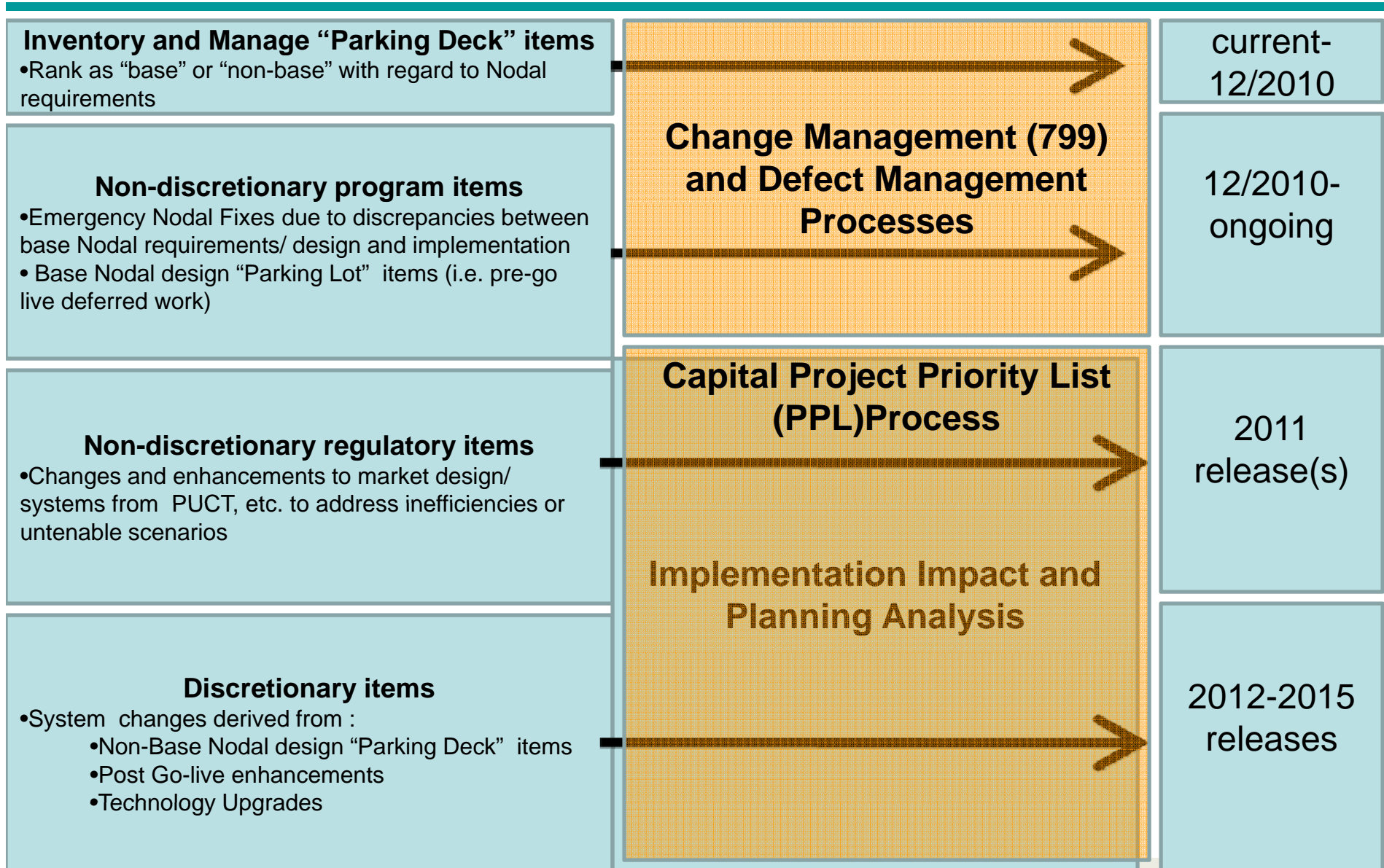
Nodal Program Risks & Issues

Risk/Issue	Impacted Milestone	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>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>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>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>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>Phase 6</p>	<p>July 2010</p>	<ul style="list-style-type: none"> • On track. • ERCOT Enterprise Architecture team completed initial Zonal analysis and developed options. • Nodal Impact assessment to be completed in parallel with Integration Testing over the next several weeks.
<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

External Audit Status Summary

Audit	Audit Points Identified	Audit Points in Execution	Date to Complete Last Point
IBM Report 7	4	1 in progress; 3 complete	12/31/09
Utilicast Report 8	6	1 in progress; 5 complete	2011
Utilicast Report 10 (Morgan)	10	10 complete	
Utilicast Report 10 (Cleary)	17	5 in progress; 12 complete	12/15/09
Utilicast Report 10 (Capezzuti)	1	1 complete	9/13/09

Post Go-live Change/ Enhancement Process



Post Go-live Change/ Enhancement Process- Next Steps

- **“Parking Deck” items will be managed through ERCOT PMO via current process 799 Change Management process**
- **Non-discretionary items will be managed through Nodal Change Management and Defect Management Process with implementation status reported through the Nodal Parking Deck monthly updates**
- **Leverage existing ERCOT Program Management process, Capital Project Priority List, to collaborate with the market in:**
 - Ranking priorities, additions, holds, cancels, etc., of change and enhancement items and;
 - Analyzing items in consideration of ERCOT’s core functions and overall corporate goals
- **Create Post Nodal Go-live (R1.0) Release Schedule (by Q3/2010)**
 - Create proposed post go-live release schedule with associated inventory for discussion with market
- **Conduct Implementation Impact and Planning Analysis (by Q4/2010)**
 - Analyze items to create a proposed inventory and ranking, including levels of effort for each item and associated budget



Traceability

Betty Day
Program Control & Review

Special Nodal Program Committee

14 December 2009

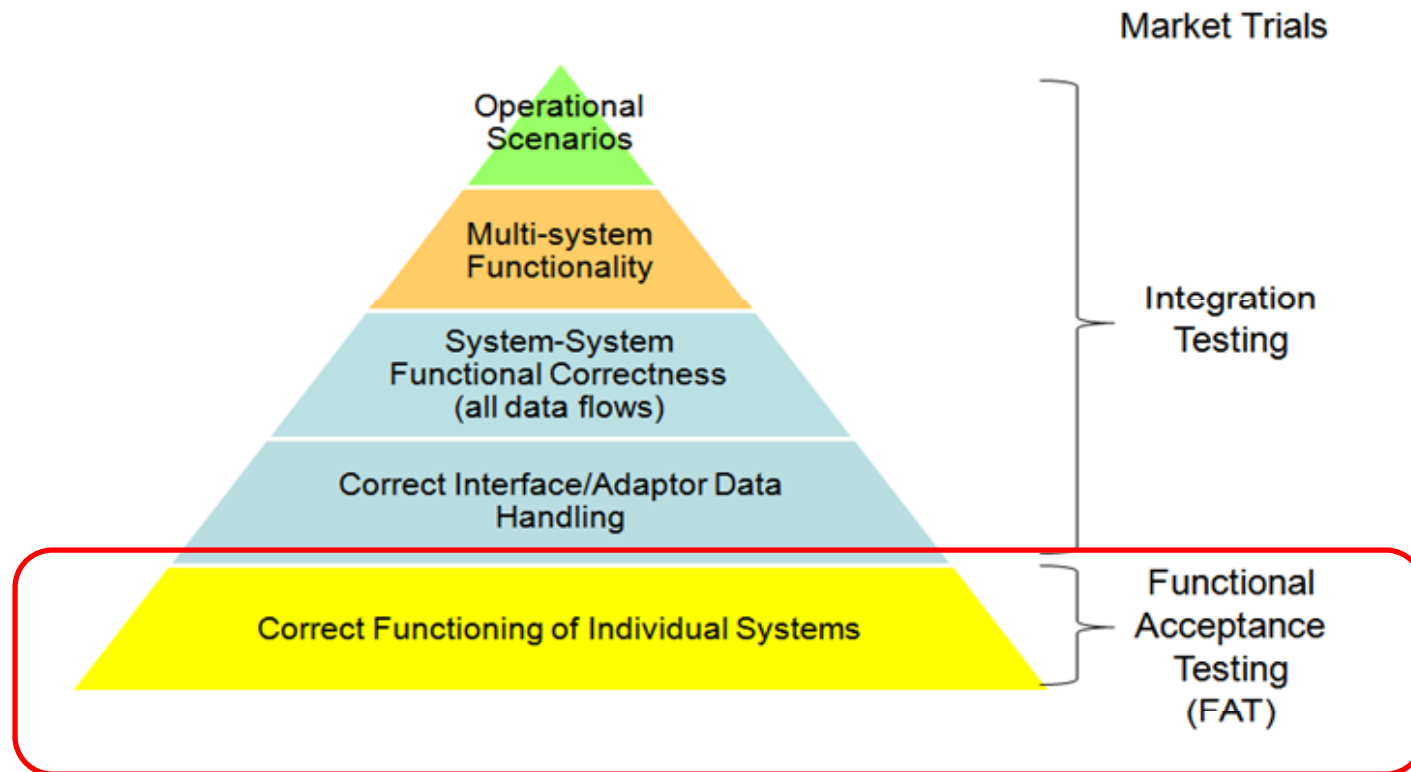
Protocol Traceability Effort Update

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)	905	200	502	182	TBD
Section 4 – Day Ahead Operations (Nov NATF)	635	60	65	63	3
Section 5 – Transmission Security Analysis and RUC (Nov NATF)	167	26	74	17	9
Section 6 – Adjustment Period and Real-Time Operations (Dec NATF)	921	205	434	52	TBD
Section 7 – Congestion Revenue Rights (Oct NATF)	445	88	56	26	1
Section 8 – Performance Monitoring (Dec NATF)	224	155	150	2	TBD
Section 9 – Settlement & Billing (Nov NATF)	407	0	129	56	2
Section 16.11 – Financial Security for Counter Parties (Dec NATF)	200	109	9	20	TBD
Section 17 – Market Monitoring & Data Collection (Dec NATF)	25	3	21	1	TBD
Total	3929	846	1440	419	TBD

Requirements to Test Artifact Tracing

- **Test artifact tracing is occurring at the FAT level for maximum coverage**

Incremental Approach to Testing Full Capability



Requirements to Protocols

Tier 1 Requirements by Protocol							
	Network Model Management System (NMMS)	Energy Management Systems (EMS)	Market Management Systems (MMS)	Congestion Revenue Rights (CRR)	Commercial Systems (COMS)	Market Information Systems (MIS)	Enterprise Data Warehouse (EDW)
Sec 3	X	X	X	X	X	X	X
Sec 4	X	X	X	X	X	X	X
Sec 5	X	X	X		X	X	X
Sec 6	X	X	X	X	X	X	X
Sec 7	X		X	X	X	X	X
Sec 8	X	X	X		X	X	X
Sec 9		X	X	X	X	X	X
Sec 16.11			X	X	X	X	X
Sec 17	X	X	X	X		X	X

Requirements to Test Artifact Tracing

- Progress being tracked at higher level for reporting and also at more granular tracking at the Project level through matrices.

Requirements to Test Artifacts			
Project	# of Requirements	# and Type of Test Artifacts	Current state Coverage
Energy Management System (EMS)	TBD	TBD	In Progress
Market Management System (MMS)	TBD	TBD	In Progress
Outage Scheduler (OS)	18	18 Test Cases	Complete
Commercial Systems (COMS)	TBD	TBD	In Progress
Congestion Revenue Right (CRR)	50	32 Test Cases	Complete
Credit Monitoring Management System (CMM)	TBD	TBD	In Progress
Network Management System (NMMS)	TBD	TBD	In Progress
Market Information Systems (MIS)	306	TBD	In Progress

Project	Requirements to Test Artifact Matrix							
	MatrixExists?	Current as of Date:	Location:	Type of Matrix	# of Requirements	# of Test Artifact to Requirements	Type of Artifact	Complete Coverage
EMS	Yes	Not Current		Req -> Test Scripts	TBD		TBD	TBD
OS	Yes	Not Current	Testing Artifact Network Drive	Req -> Test Case	18		Test Cases	TBD
NMMS	Yes	Not Current	SharePoint	Req -> Test Case	TBD	TBD	Test Cases	TBD
MMS	Yes	Oct-09	TBD	TBD	TBD	TBD	TBD	TBD
CRR	Yes	Yes	M Drive/CRR SharePoint	Req -> Use Case Test Case	50	32	Test Cases	Yes
COMS		Meeting on 11.23	TBD	TBD	TBD	TBD	TBD	TBD
CMM	Yes	Meeting on 11.20	TBD	TBD	TBD	TBD	TBD	TBD
MIS	Yes	Nov-09	SharePoint	Req -> Test Case	306	TBD	Test Cases	Yes
EDW	TBD	Meeting on 11.20	TBD	TBD	TBD	TBD	TBD	TBD
CDR	TBD	Meeting on 11.20	TBD	TBD	TBD	TBD	TBD	TBD

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			

Protocol Section 4 PTE Trace Report Executive Summary

Section 4 Traceability Overview				
	PTE Traced Items	In Progress Research items (Business / PTE team)	PTE Alignment Items	Full Trace Report
Section 4 Day Ahead Operations	635	60 / 128 Total - 188	3	Posted 11/23/09

Section 4 Alignment Item Review		
#	Summary of Alignment Issue	Resolution Status
A31	MMS DA SPP Calculations for Resource Nodes, Load Zones, and Hubs	Resolution Identified – change functional requirement No change control should be required as the system has demonstrated the functionality, at least in testing to date. While the change will likely be done earlier, it should be done by phase 5 market trials.
A78	Virtual/Emergency QSE Bid/Offer Limitations	Discussed Business Procedure Business Procedure needed for Phase 5 of market trials
A80	Combined Cycle Modeling in Protocol Sections 4 and 5	Discussed Protocol change NPRR to be submitted in January

Protocol Section 5 PTE Trace Report Executive Summary

Section 5 Traceability Overview				
	PTE Traced Items	In Progress Research items (Business / PTE team)	PTE Alignment Items	Full Trace Report
Section 5 - Transmission Security Analysis and RUC	167	26 / 91 Total - 117	9	Posted 11/23/09

Section 5 Alignment Item Review		
#	Summary of Alignment Issue	Resolution Status
A54	Unacceptable Use of Modified Load Forecast in RUC (sec 5.5.2(9)(b))	Resolution Identified – address in a Business Procedure
A55	Unacceptable Use of Modified Generic Limits in RUC (sec 5.5.2(8)(b))	Resolution Identified – address in a Business Procedure

Protocol Section 5 PTE Trace Report Executive Summary

Section 5 Alignment Item Review - Continued		
#	Summary of Alignment Issue	Resolution Status
A56	Administrative Controls for Use of Updated Load Forecast (sec 5.5.2(8)(b))	Resolution Identified – address in a Business Procedure
A57	Control of Operator Updates to the Load Forecast (sec 5.5.2(8)(b))	Resolution Identified – address in a Business Procedure
A58	Use of Different Computational Modules to Perform the RT/DA/HA Security Analysis (sec 5.5.1(2))	Resolution Identified – Submit NPPR
A81	DRUC Execution when DAM Fails (sec 5.5.2(1), 5.1(3))	Resolution Identified – Submit NPPR to allow execution of DRUC when DAM fails Will bring to NATF for discussion
A82	Combined Cycle Additions to Section 5 (sec 5.5.2(5))	Resolution Identified – Submit NPPR to address handling on Combined Cycle in RUC Will bring to NATF for discussion
A83	Default for Resource Status when COP is Not Available (sec 5.5.2(9)(a))	Resolution Identified – Submit NPPR to address how Resources will be considered when COP is not available

Protocol Section 5 PTE Trace Report Executive Summary

Section 5 Alignment Item Review - Continued		
#	Summary of Alignment Issue	Resolution Status
A91	QSE Failure to Respond to 5 Year Verifiable Cost Update (sec 5.6.1(9))	Business will develop a Procedure and validate internal system processing to address resetting a Resource's verifiable cost to generic cost when the Market Participant fails to respond to ERCOT's request to file a verifiable cost update following the 5 year anniversary of it's Verifiable Cost approval. Will bring to NATF for discussion

Protocol Section 7 PTE Trace Report Executive Summary

Section 7 Traceability Overview				
	PTE Traced Items	In Progress Research items (Business / PTE team)	PTE Alignment Items	Full Trace Report
Section 7 Congestion Revenue Rights	445	88 / 82 Total - 170	1	Update posted 11/23/09

Section 7 Alignment Item Review		
#	Summary of Alignment Issue	Resolution Status
A20	CRR Market User Interface Handbook (sec 7.5.3(3))	Resolution Identified – Create and publish a CRR Market User Handbook Handbook needed for Phase 3 of Market Trials

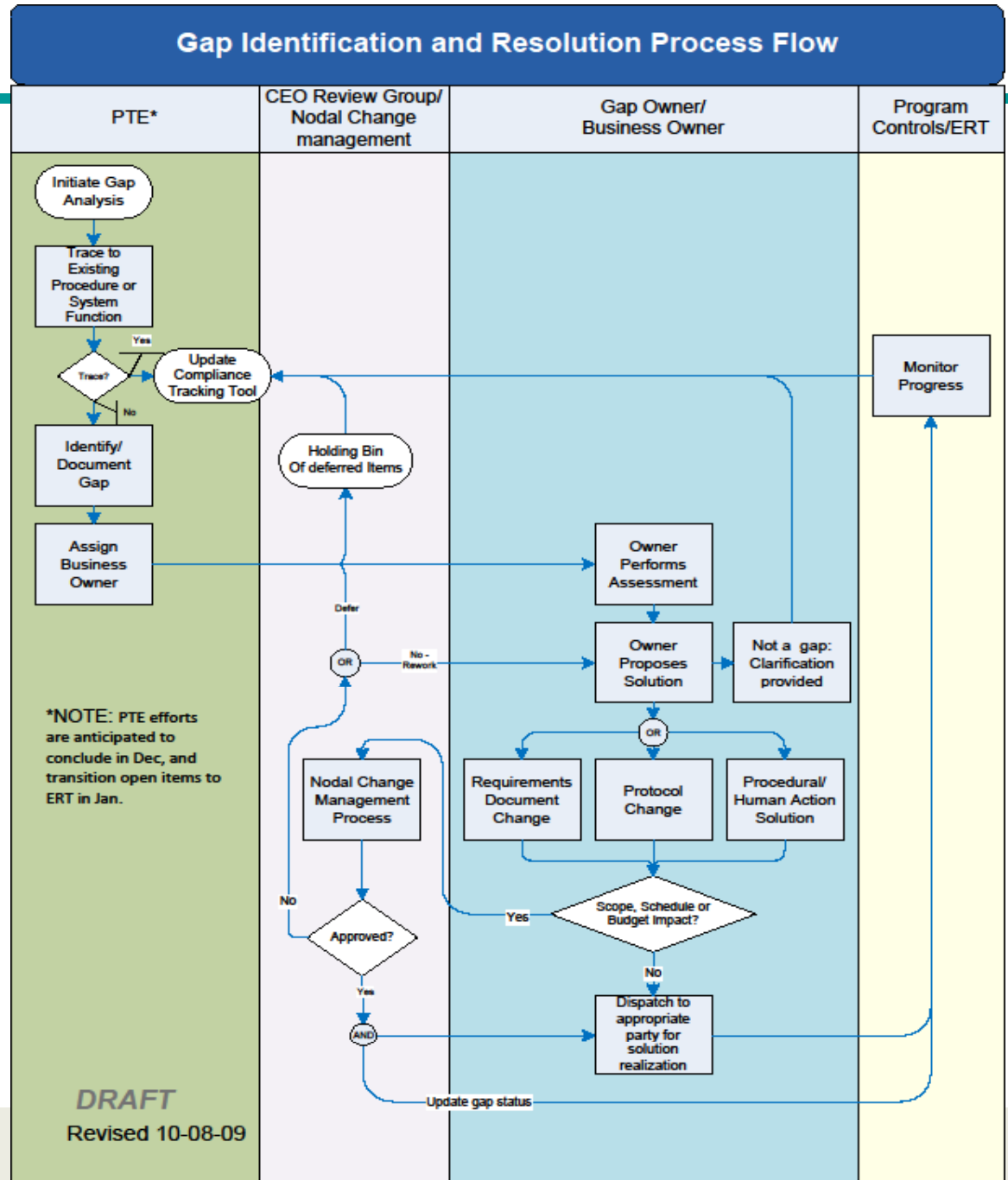
Protocol Section 9 PTE Trace Report Executive Summary

Section 9 Traceability Overview				
	PTE Traced Items	In Progress Research items (Business / PTE team)	PTE Alignment Items	Full Trace Report
Section 9 Settlements and Billing	407	0 / 185 Total - 185	2	Posted 11/23/09

Section 9 Alignment Item Review		
#	Summary of Alignment Issue	Resolution Status
A62	DAM Short Pay Process (sec 9.7.3(e)(ii))	Resolution Identified – Short paid DAM Invoices to be addressed in NPRR147
A72	Missing Reject Status for Disputes (sec 9.14.2(3), 9.14.2(4), 9.14.2(5), 9.14.3.(1))	Resolution Identified – NPRR to be submitted to add the Reject status category

Full Trace Report

- What if there is an alignment item?
- What is the process?



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**
 - Dec 18 – 9:30 am – 3:30pm – sections 3, 16.11, 17
 - Mid-January – sections 6 & 8



Market Readiness

Vikki Gates

Readiness & Transformation

Special Nodal Program Committee

14 December 2009

Participant Readiness Touch Points

2009/2010				
	December	January	February	March
Meetings	<ul style="list-style-type: none"> • NATF 12/8 	<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 TBD
Training	<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 	<ul style="list-style-type: none"> • Nodal 101 • LSE 201 • Basic Training • Generation 101, 201 • CRR – instructor-led ◆ Settlement Workshop • Operations Seminar • Economics of LMP 	<ul style="list-style-type: none"> • Nodal 101 • LSE 201 • Basic Training • Generation 101, 201 • CRR – instructor-led ◆ Settlement Workshop • Operations Seminar
Outreach	<ul style="list-style-type: none"> • 5 site visits • Metrics mapped to future phases 	<ul style="list-style-type: none"> • 7 site visits • Initiate Phase 3 metrics ◆ MRS #2 	<ul style="list-style-type: none"> • 5 site visits • Standby site visit mitigation approach documented 	<ul style="list-style-type: none"> • 4 site visits • Scheduled Site Visits conclude
Market trials	<ul style="list-style-type: none"> • CRRAH Kickoff: 12/11 • 2.1 environment closed • Sandbox decommissioned • MP Handbooks <ul style="list-style-type: none"> • SCED/LFC & CRR 	<ul style="list-style-type: none"> • Start weekly calls ■ Mandatory QSE/CRRAH re-qualification begins 	<ul style="list-style-type: none"> • Weekly calls • Phase 3 Market Trials initiates • QSE OS qualification 	<ul style="list-style-type: none"> • Weekly calls • Phase 3 Execution
		<ul style="list-style-type: none"> • MP Handbooks <ul style="list-style-type: none"> • DAM/RUC • Outage Scheduler • COMS 		

Market Participant Site Visits

Confirmed Completed

15 Outreach Site Visits have been completed

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

RARF Status Update

- BOSQUE POWER COMPANY LLC 
- BRAZOS WIND LP 
- BUFFALO GAP WIND FARM 2 LLC 
- BUFFALO GAP WIND FARM 3 LLC 
- BUFFALO GAP WIND FARM LLC 
- BULL CREEK WIND LLC 
- CHAMPION WIND FARM LLC 
- EC AND R PANTHER CREEK WIND 
- EC AND R PANTHER CREEK WIND 
- EC AND R PAPALOTE CREEK I 
- EC AND R PAPALOTE CREEK I 
- FOREST CREEK WIND FARM LLC 
- GREGORY POWER PARTNERS LP 
- INADALE WIND FARM LLC 
- NAVASOTA ODESSA ENERGY 
- NAVASOTA WHARTON ENERGY 
- PYRON WIND FARM LLC 
- ROSCOE WIND FARM LLC 
- SAND BLUFF WIND FARM LLC 
- SNYDER WIND FARM LLC 
- TICONA POLYMER INC 

Tag	MP11
Metric Description	This metric shall measure whether Market Participants have completed the resource registration activities required for the Nodal program.
Criteria	<p>Criteria: MP Readiness will be achieved when the MP has completed the required resource registration activities including:</p> <ul style="list-style-type: none"> Transmission Asset Registration 11/16/2009 - 12/1/2009 RARF True-up: Resource Entities complete schedule RARF submittals with updated business rule validations 1/4/2010 - 4/1/2010 Resource Entities complete refresh of declaration of Resource Decision Making Authority for each network modeled Generation Resource 12/1/2009 - 1/29/2010 Resource Entities sign-off on verification of Resource Node and Meter Mapping 12/1/2009 - 5/1/2010 <p>RAG Rules MPs QSERs will be scored based on status of resource registration for all resources represented Red No submittals have been received according to schedule and/or not responding to escalation calls after the target completion date. Amber Demonstrating progress in making corrections after target completion date. Score will change to RED after 30-days past target completion date if no corrections are received. Green All forms received and accepted</p>



Monthly Financial Review

Don Jefferis

Special Nodal Program Committee

14 December 2009

Monthly Financial Review

Financials to be provided before SNPC meeting.

Questions ?

Appendix

14 December 2009

Special Nodal Program
Committee

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 Risk: Internet Explorer 6 Upgrade

◇ Potential Milestone Impact: Phase 5 Full Functionality

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
Nodal Impact assessment to be completed in parallel with Integration Testing over the next several weeks.				T. Baum	Complete	Resource assignments will be assigned and load balanced within current Phase 3 Integration Testing activities.
Update Nodal Change Request.				J. Dreyer	12/31/09	Updating based on assessment and impact analysis.
Complete Development Changes				Systems	TBD	Pending Change Request Approval
Complete Regression Testing				INT	TBD	Pending Change Request Approval

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	12/22/09	11/02/09 – SMEs are working with business owners on research and alignment items. NATF web ex for 11/30/09 and 12/18/09 to review full trace reports with Market Participants.
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	11/02/09 – 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	11/02/09 – 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	1 in progress; 3 complete	12/31/09
Utilicast Report 8	6	1 in progress; 5 complete	2011
Utilicast Report 10 (Morgan)	10	10 complete	
Utilicast Report 10 (Cleary)	17	5 in progress; 12 complete	12/15/09
Utilicast Report 10 (Capezzuti)	1	1 complete	9/13/09

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	12/31/09

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	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