



Nodal Program Update

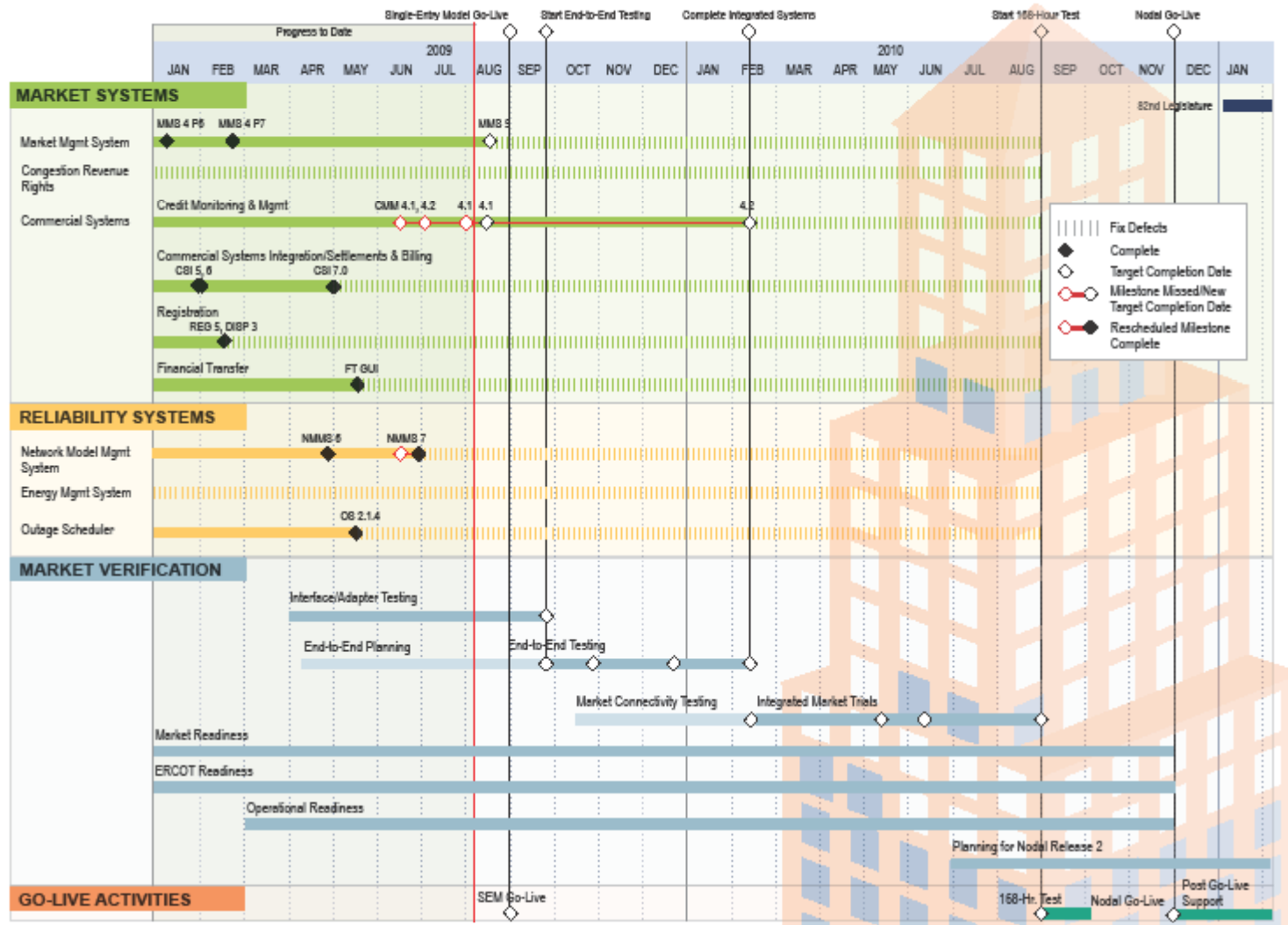
Mike Cleary

Sr. VP and Chief Technology Officer

Agenda

- **Timeline**
- **SEM Go-Live**
- **Integrated/End-to-End Testing**
- **Milestones**
- **Risks/Issues**
- **Financials**

Nodal Timeline



CMM Milestone Slip

- **CMM 4.1**

- 4 of 8 CMM 4.1 components have exited FAT
 - 2 components' FAT exit pushed back to Aug. 14
 - External Reports
 - Custom Calculation Management
 - Scorecard FAT exit targeted for Aug. 5
 - Vendor re-work will push Twelve Trailing Month to Aug. 31
- Good progress made working through excessive defects found in custom components delivered in July
- CMM Phase II work has begun concurrently
- CMM focus on testing, defect remediation for components required for End-to-End Testing
- No impact to End-to-End schedule

Milestones Performance

Tracking Milestones Planned					July 2009	
Proj	Name	%	Baseline	Forecast	Actual	Variance
DSV	Release DSV 1.1.0.0	100%	7/3/09	7/14/09	7/14/09	7 days
MMS	Deliver MMS5: Preliminary Release to iTest	100%	7/10/09	7/8/09	7/8/09	-2 days
MMS	MMS5 Patch 1 Released to FAT	100%	7/10/09	6/18/09	6/18/09	-16 days
MIS	MIS Build 13 Start	100%	7/20/09	7/20/09	7/20/09	0 days
COMS CMM	CMM 4.1 FAT Execution Complete	0%	7/1/09	8/14/09	Delayed	31 days
EIP	EIP.WS1.1.19A Delivery Complete	100%	7/23/09	7/23/09	7/23/09	0 days
E2E	Framework Established & Approved	0%	7/24/09	8/7/09	Delayed	10 days
E2E	String CRR Auction Pilot Run- Planning Complete	100%	7/7/09	7/7/09	7/7/09	0 days
E2E	Create Test Cases: OS String	100%	7/28/09	7/27/09	7/27/09	-1 day
EDS	Publish External Interface Specification V 1.19	100%	7/13/09	7/13/09	7/13/09	0 days
EDS	Sandbox Release for External Interface Specification V 1.19	100%	7/13/09	7/13/09	7/13/09	0 days
EDS	Complete Submission of Simple Cycle Less Than or Equal to	100%	7/31/09	7/31/09	7/31/09	0 days
ORT	Security Testing Scope of Work Completed	100%	7/7/09	7/15/09	7/15/09	6 days
ORT	NMMS Final Run Book Completed	0%	7/30/09	8/14/09	Delayed	11 days

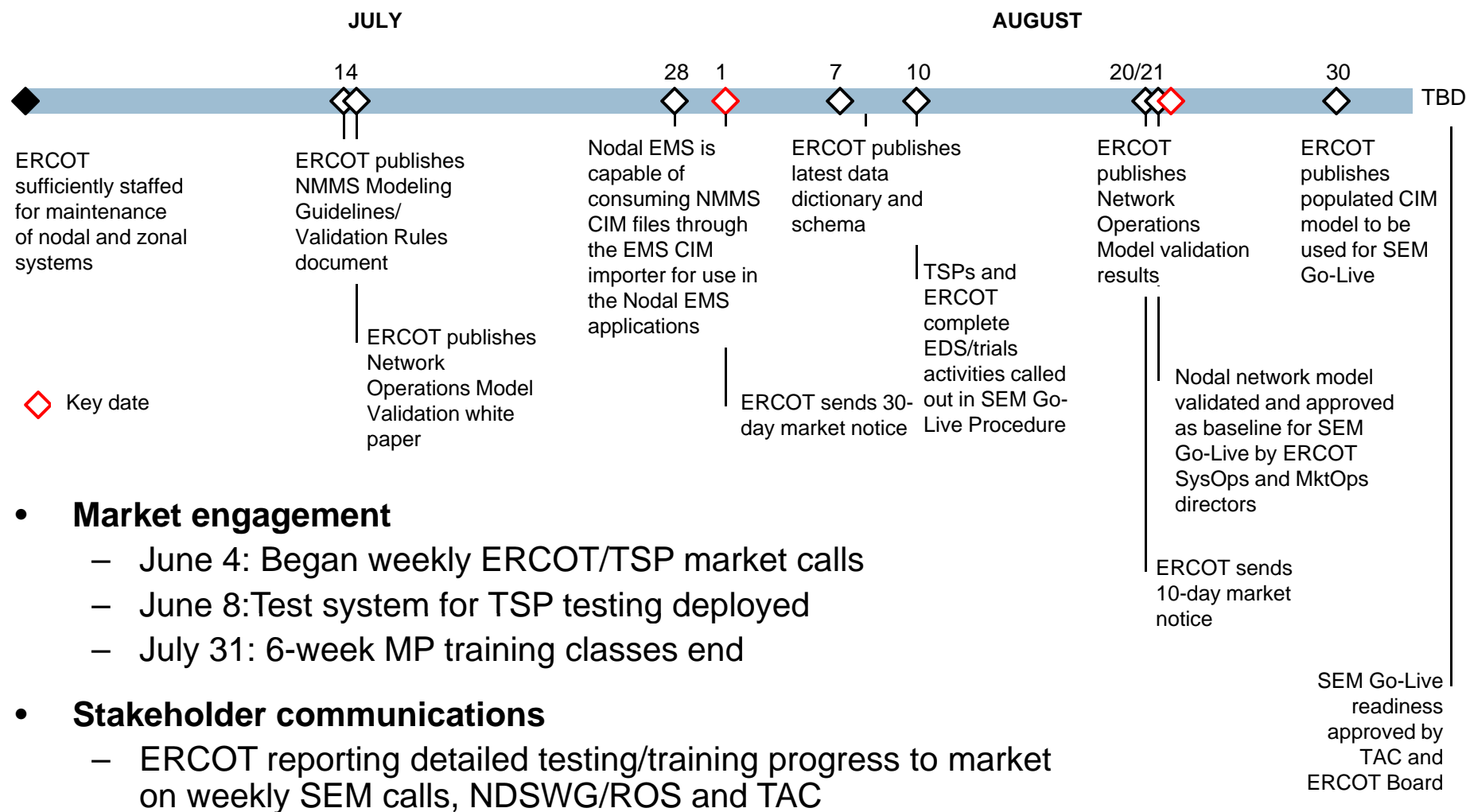
Tracking Milestones Planned					August 2009	
Proj	Name	%	Baseline	Forecast	Actual	Variance
MMS	MMS5: Completed Final FAT	0%	8/21/09	8/21/09	NA	0 days
NMMS	SEM Cut Over (Go Live)	0%	8/31/09	8/31/09	NA	0 days
MIS	MIS Build 12 Complete	0%	8/10/09	8/21/09	NA	9 days
EIP	EWS 1.19 Enhancements Completed	0%	8/6/09	8/20/09	NA	10 days
EIP	EIP Adapters Complete	100%	8/10/09	6/19/09	6/19/09	-35 days
E2E	OS String String Test Complete	0%	8/3/09	8/3/09	NA	0 days
E2E	EWS/October Market Trial String Test Iteration 1 Complete	0%	8/28/09	8/28/09	NA	0 days
E2E	DAM String Test Iteration 1 Complete	0%	8/17/09	8/17/09	NA	0 days
E2E	DAM String Test Iteration 2 Complete	0%	8/21/09	8/21/09	NA	0 days
ORT	Base System Monitoring for SEM Go Live Completed	0%	8/28/09	8/28/09	NA	0 days
ORT	MP Connectivity Performance Tuning Completed	0%	8/20/09	8/20/09	NA	0 days
ERT	Publish ERCOT Readiness Plan	0%	8/12/09	8/12/09	NA	0 days
ERT	Publish Master Process & Procedure (PnP) Inventory	0%	8/5/09	8/5/09	NA	0 days
ERT	Nodal Transition Plan (Market Readiness Approach) Published	0%	8/26/09	8/26/09	NA	0 days

- 11 of 14 tracking milestones for July completed
- Please see following slide for variance report
- 14 tracking milestones scheduled for August

Milestone Variance Analysis: June Tracking Milestones

Issue	Details	Schedule	Budget
COMS CMM – CMM 4.1 FAT Test Execution Completed	<ul style="list-style-type: none">Defect levels in software from vendor caused additional time and additional cycles of testing	No impact to critical path	No impact to budget
E2E – Framework Established & Approved	<ul style="list-style-type: none">E2E Strategy Document Pending Formal Approval & Signatures	No impact to critical path	No impact to budget
ORT – NMMS Final Run Book Complete	<ul style="list-style-type: none">OPS Resource Constraint	No impact to critical path	No impact to budget

SEM Go-Live Criteria Dashboard



SEM Go-Live Market Engagement Dashboard (6/30/09)

TO/TDSP	Attendance at any of the SEM Market Calls	# of Representatives scheduled to take SEM Training	# of TDSP users with access to the test SEM environment	# test NOMCRs Submitted by TDSPs to the test SEM environment
AEP TEXAS CENTRAL COMPANY	X	X	X	X
BRAZOS ELECTRIC POWER CO OP INC (TDSP)	X	X	X	X
BROWNSVILLE PUBLIC UTILITIES BOARD (TDSP)	X	X	X	
BRYAN TEXAS UTILITIES (TDSP)		X	X	X
CENTERPOINT ENERGY HOUSTON ELECTRIC LLC (TDSP)	X	X	X	X
CITY OF AUSTIN DBA AUSTIN ENERGY (TDSP)	X	X	X	X
CITY OF COLLEGE STATION (TDSP)	X		X	
CITY OF GARLAND (TDSP)		X	X	
CPS ENERGY (TDSP)	X	X	X	
DENTON MUNICIPAL ELECTRIC (TDSP)		X	X	X
GEUS (TDSP)	X		X	
GOLDEN SPREAD ELECTRIC COOPERATIVE INC (TDSP)	X	X		
LCRA TRANSMISSION SERVICES CORPORATION	X	X	X	X
ONCOR ELECTRIC DELIVERY COMPANY	X	X	X	
RAYBURN COUNTRY CO OP DBA RAYBURN ELECTRIC	X	X		
RIO GRANDE ELECTRIC CO OP (TDSP)	X			
SOUTH TEXAS ELECTRIC CO OP INC	X	X	X	
TEXAS MUNICIPAL POWER AGENCY	X	X	X	
TEXAS-NEW MEXICO POWER CO (TDSP)	X	X	X	
WEATHERFORD MUNICIPAL UTILITY SYSTEM				
TEX-LA ELECTRIC CO OP OF TEXAS				
TOTAL:	17	63	81	22

SEM Go-Live Market Engagement Dashboard (7/30/09)

TO/TDSP	Attendance at any of the SEM Market Calls	# of Representatives scheduled to take SEM Training	# of TDSP users with access to the test SEM environment	# Test NOMCRs Submitted by TDSPs to the test SEM environment
AEP TEXAS CENTRAL COMPANY	X	X	X	X
BRAZOS ELECTRIC POWER CO OP INC (TDSP)	X	X	X	X
BROWNSVILLE PUBLIC UTILITIES BOARD (TDSP)	X	X	X	X
BRYAN TEXAS UTILITIES (TDSP)	X	X	X	X
CENTERPOINT ENERGY HOUSTON ELECTRIC LLC (TDSP)	X	X	X	X
CITY OF AUSTIN DBA AUSTIN ENERGY (TDSP)	X	X	X	X
CITY OF COLLEGE STATION (TDSP)	X	X	X	X
CITY OF GARLAND (TDSP)	X	X	X	X
CPS ENERGY (TDSP)	X	X	X	X
DENTON MUNICIPAL ELECTRIC (TDSP)	X	X	X	X
GOLDEN SPREAD ELECTRIC COOPERATIVE INC (TSP)	X	X	X	X
LCRA TRANSMISSION SERVICES CORPORATION	X	X	X	X
ONCOR ELECTRIC DELIVERY COMPANY	X	X	X	X
RAYBURN COUNTRY CO OP DBA RAYBURN ELECTRIC (TDSP)	X	X	X	X
RIO GRANDE ELECTRIC CO OP (TDSP)	X	X	X	X
SOUTH TEXAS ELECTRIC CO OP INC	X	X	X	X
TEXAS MUNICIPAL POWER AGENCY	X	X	X	X
TEXAS-NEW MEXICO POWER CO (TDSP)	X	X	X	X
TEX-LA ELECTRIC CO OP OF TEXAS	X			
WEATHERFORD MUNICIPAL UTILITY SYSTEM	X	X	X	X

Overall SEM Go-Live ERCOT/Market Criteria Dashboard

	Readiness status	Planned Completion date
Readiness Criteria called out in SEM Go-Live Procedure		
TSPs & ERCOT complete EDS/trials activities (ie training and testing)	Green	Complete
Refer to overall engagement summary view (attendance, training, testing, submissions)	Green	in progress
On schedule to complete pre-SEM Go-Live training July 31	Green	Complete
Schedule to support Post Go-Live training scheduled for Sept 22-Oct 20	Green	Oct 20th
Actively pursuing the TSPs not engaged and/or deficient in training	Green	in progress
Very few issues identified by TSPs after a month and training, and no Severity 1 or 2 issues	Green	Complete
Acceptable ratings of class and system performance	Green	Complete
ERCOT sufficiently staffed for maintenance of nodal & zonal systems	Green	Complete
Network Model Group is staffed for dual entry of model changes into zonal and nodal	Green	
ERCOT publishes Network Operations Model validation whitepaper	Green	Complete
Delivery to NDSWG next week, July 14th	Green	
Nodal EMS is capable of consuming NMMS CIM files through the EMS CIM importer for use in the Nodal EMS applications	Green	Complete
Model consumed by EMS (test/screening consumption on July 7, final on July 28)	Green	
ERCOT publishes latest CIM data dictionary and schema	Green	Complete
Post final CIM 1.21 schema posted on Nodal Readiness Center (http://nodal.ercot.com/readiness/eds2/documents/index.html)	Green	
ERCOT publishes NMMS Modeling Guidelines / Validation Rules document		Aug 4th
Numerous meetings with NDSWG have brought issues down from 500+ to 3 (will be living document)		in progress
ERCOT publishes Network Operations Model validation results		Aug 17th
ERCOT will publish finding of validation results (including CIM Audit, Zonal/Nodal consistency check, Rules validation)		in progress
Nodal network model validated and approved as baseline for SEM Go-Live by ERCOT SysOps and MarketOps Directors		Aug 17th
Sign-off will be based on Network Operations Model validation results		in progress
SEM Go-Live readiness approved by TAC and ERCOT Board		Aug 17/18
Consider timing of criteria/completions to determine when to vote		in progress
ERCOT publishes populated CIM model to be used for SEM Go-Live		Aug 30th
TAC approved posting model only to TSPs, and ERCOT has modified the systems accordingly		in progress

SEM Go-Live Criteria and Approval

- **Summary of remaining Stakeholder meeting dates for SEM discussion/approval of Go-Live**
 - August
 - 30-day Market Notice - Aug 1
 - NDSWG (key SEM stakeholders) - Aug 4
 - TAC - Aug 6
 - ROS - Aug 13
 - ERCOT publishes results and sign-off from directors – Aug 17
 - Potential TAC Aug 17/18 (if deemed necessary)
 - BOD - Aug 18
 - 10-day Market Notice - Aug 21
 - SEM Go-Live - Aug 31
 - TAC can consider whether “Certification that all Market Readiness Criteria have been met”
 - All training complete, and plans in place to support one TSP
 - Remaining activities are for ERCOT to complete/sign-off model analysis
 - Note that no protocol changes go into effect Aug 31 (system change only)

Significant Accomplishments

- **SEM Go-Live**
- **Integration Testing Update**
 - All major systems have consumed, executed against common data set
 - All major systems have started Integration Testing
 - CRR auction has been executed twice in integrated environment and results processed by settlement and market systems.
 - Market Web Services, Outage Scheduler are undergoing integrated testing with common data set (“string tests”)
- **Systems Update**
 - CRR 1.9 exited FAT July 28 (originally scheduled Aug. 31)
 - 2 CMM 4.1 components finished testing one week ahead of schedule

Significant Accomplishments

- **Integration Testing Update**

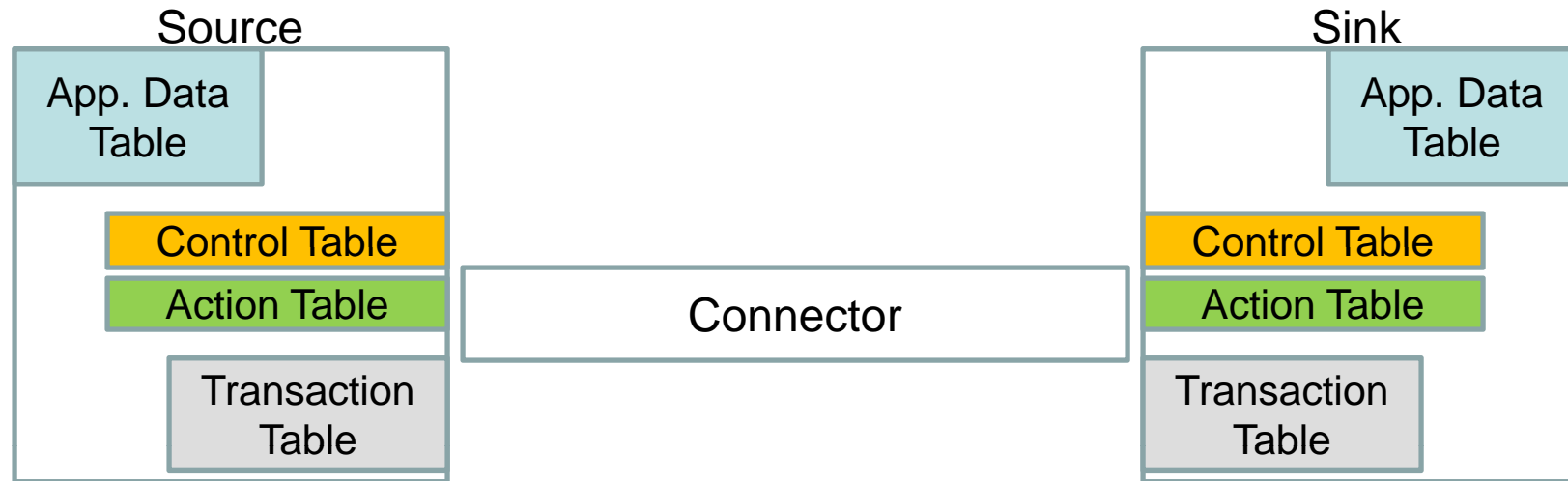
- All major systems have consumed, executed against common data set
- All major systems have started integration testing

- **End-to-End Testing Update**

- CRR auction has been executed twice in integrated environment and results processed by settlement and market systems.
- Outage Schedules have been processed by EMS and Market Systems.
- Market Web Services and Day-Ahead Market are undergoing integrated testing with common data set (“string tests”).
- Real-Time Market (SCED) string test is being planned.
- Core Market Web Services (submittals) are on target to be deployed in October.

	Integration Testing		End-to-End Testing			
Phase	I/A Testing Phase		E2E Phase 1	E2E Phase 2		E2E Phase 3
Dates	Apr 2009 to Sep 2009		Jul 2009 to Nov 2009	Sep 2009 to Dec 2009		Jan 2010 to Mar 2010
Quality	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Objective	Installation with Smoke Test	Connector execution with Common Data	System-to-System with Common Data	Technical Stability with Normal Load	Full set of Business Outcomes	Defined Scenarios
Indicator	Connectors			Systems and Components	Business Outcomes	Scenarios
Data	Common Data Set 17 August 2009			Representative Data		Manipulated Data
Execution	Connector Test Scripts		Business Strings	Operating Procedures		Alternative Operating Procedures

Integration Testing Overview



- Level 1: Connector Team ensures the connector between source and sink system passes a smoke test; results are verified to be correct.
- Level 2: Owner Team (generally the Sink Team) demonstrates ability to transfer data correctly across the connector. Data used must be one of: native CCDS, system-generated data based on CCDS, or data from the Data Management team based on a special request. No hand-crafted data is to be used.
- Level 3: Owner team (generally the Sink Team) ensures data generated by source system (may be based on the CCDS (or other generated data)) is transferred correctly across the connector to the sink system and demonstrates valid system functionality through running the sink application.

Integration Testing Update

Connector Scorecard (78 Total)					
	Definition	Completed	In Progress	Deferred	Not Started
Level 1	Connector installed; one record transferred through connector ("smoke test")	65 (83% complete)	5	0	8
Level 2	Connector tested using a common data set with multiple records	33 (45% complete*)	26	5	14
Level 3	System-to-system functional test; connector tested with system-generated data	13 (17% complete*)	17	1	47

* Less Deferred count (items that cannot be tested in the ITEST environment)

Target Completion

- Levels 1 & 2 → September 22, 2009
- Level 3 → November 13, 2009

End-to-End Test Phase 1 Summary

String Name	High-Level System Flow	Objectives	Status
CRR Auction (Iteration A)	CRR -> S&B -> CRR -> S&B & MMS	<ul style="list-style-type: none"> Conduct CRR Auction Produce CRR Auction invoices Reflect CRR Ownership/Disseminate CRR Ownership 	Complete
CRR Auction (Iteration B)	CRR -> S&B -> CRR -> S&B & MMS	<ul style="list-style-type: none"> Conduct CRR Auction Produce CRR Auction Invoices Post Invoices to MIS Create CRR Ownership in CRR system 	Complete
CRR Auction (Iteration C)	CRR -> S&B -> CRR -> S&B & MMS	<ul style="list-style-type: none"> Conduct CRR Auction Produce CRR Auction Invoices Post Invoices to MIS Create CRR Ownership in CRR system 	In Planning
CRR Auction - Annual (Iteration D)	TBD	<ul style="list-style-type: none"> TBD 	In Planning
Outage Scheduler	EWS -> OS -> EMS -> OS -> MMS	<ul style="list-style-type: none"> Web Services Submission to Outage Scheduler Outage Evaluation study Forced Outage Detection Study results consumed into OS Usage of Outage data for Day Ahead by MMS (without running DAM) 	Complete
Web Services Oct Market Connectivity R2.1	EWS -> MMS	<ul style="list-style-type: none"> Submission of specified transactions through EWS and the Market Manager Interfaces Asynchronous validation notifications Will NOT initially run SCED or DAM Will NOT initially produce reports 	Started

End-to-End Test Phase 1 Summary (continued)

String Name	High-Level System Flow	Objectives	Status
DAM (Iteration A)	CRR -> MMS & S&B S&B -> MMS -> S&B	<ul style="list-style-type: none"> • Complete base string process execution based on common data set across CRR/MMS/S&B using DSV July 15th data • Data (Verifiable Cost, RMR contract, and Load Ratio Share) transfer from S&B to MMS • Data (CRR ownership, MCFRI allocation) transfer from CRR to MMS • MMS perform AS obligation calculation and publication • MMS perform SFT and MCFRI DA allocation • MMS perform CRR offer derating • MMS perform DAM • DAM solution transfer from MMS to S&B 	Started
DAM (Iteration B)	TBD	• TBD	Not Started
DAM (Iteration C)	TBD	• TBD	Not Started
RUC	TBD	• TBD	Not Started
SCED/RTM (Iteration A)	EMS → MMS	<ul style="list-style-type: none"> • Solve Real-Time market with SCADA and representative offer data. • Stabilize high availability applications (establish EMS and MMS heartbeats) before adding other components. • Outage Scheduling, Settlements and Reports will be added to future iterations. 	In Planning
SASM	TBD	• TBD	Not Started

Risks & Issues to Achieving Nodal's Major Milestones

◆ **Complete Integrated Systems (2-12-10)**

- Issue: Resource constraints for Nodal Program
- Issue: Handling CMM delays for program

◆ **Market Trials (2-12-10)**

- Risk: Reconciling protocols, systems and market expectations

◆ **Nodal Go-Live (12-1-10)**

- Risk: Data Center capacity concerns
- Risk: Integrity of network model data from market participants



Monthly Financial Review

Steve Byone

Questions ?

Appendix

Market Systems Update

Project	Sub-Project	Status	Open Critical Defects July 17/July 30			
MMS		<ul style="list-style-type: none"> On schedule MMS 5 final release; currently in FAT and scheduled to exit Aug. 21 MMS 5 Patch A (interface defects) installation scheduled July 31 14 interfaces to test by Sept. 1; testing now underway Market Manager UI to exit FAT July 31; weekly defect cycles planned to address remaining defects in iTest 	MMS5			
			Sev 1s	1	1	
			Sev 2s	3	3	
			Sev 3s	81	76	▼
CRR		<ul style="list-style-type: none"> On schedule CRR 1.9 final release; exited FAT July 28 (1 month early) All 9 interfaces in iTest; 4 in execution phase, 5 completed 	CRR 1.9			
			Sev 1s	0	0	
			Sev 2s	0	0	
			Sev 3s	0	0	
COMS	CMM	<ul style="list-style-type: none"> Behind schedule CMM 4.1 in FAT at 90% completion; targeted to exit July 31 Two CMM 4.1 components exited FAT July 24 (2 weeks early); three more to exit FAT July 31, two more Aug. 14 Remaining components combined with CMM Phase II to exit FAT February 2010 (internal functions only) 4 of 5 interfaces currently in iTest Outstanding release: CMM Phase II (4.2) 	CMM 4.1			
			Sev 1s	1	1	
			Sev 2s	80	42	▼
			Sev 3s	49	50	▲
	S&B	<ul style="list-style-type: none"> FAT testing complete; all interfaces currently in iTest Targeting refactoring completion by September 2009 	Sev 1s	0	0	
			Sev 2s	0	0	
			Sev 3s	2	2	
	CSI	<ul style="list-style-type: none"> FAT testing complete Targeting refactoring completion by August 2009 	Sev 1s	0	0	
			Sev 2s	0	0	
			Sev 3s	16	1	▼
	REG	<ul style="list-style-type: none"> Interface/Adapter Level 1 and Level 2 completed Team is currently working on I/A Level 3 testing 	Sev 1s	0	0	
			Sev 2s	0	0	
			Sev 3s	0	0	

Reliability Systems Update

Project	Status	Open Critical Defects July 17/July 30			
NMMS	<ul style="list-style-type: none">On scheduleNMMS 7 final release; exited FAT June 30, installed in iTest on July 14All 3 interfaces have exited FAT and are currently in iTest (2 complete)	NMMS 7			
		Sev 1s	0	1	▲
		Sev 2s	0	0	
		Sev 3s	49	50	▲
EMS	<ul style="list-style-type: none">On scheduleEMS 6 Patch 3 deployed to iTest July 1All 13 interfaces' test plans now complete; Level 1 & 2 testing has been completed on more than halfEMS 6 Patch 4 has started testing in FAT	SPR Patch 3			
		Sev 1s	0	0	
		Sev 2s	0	0	
		Sev 3s	105	102	▼
OS	<ul style="list-style-type: none">On scheduleCommon test plan for 12 of 13 interfaces complete2 defect patches planned for OS UI	OS 2.1.4			
		Sev 1s	0	0	
		Sev 2s	4	8	▲
		Sev 3s *	74	73	▼
		* excluding ROO defects			

Market Verification Update

Project	Status	Open Critical Defects July 17/July 30			
Interface/Adapter Testing	<ul style="list-style-type: none"> MMS loaded common dataset and received software upgrade to enable interface with CRR, EMS, S&B and other applications. Executed first Day-Ahead Market and SCED runs in integrated environment with several integration defects. 	FAT Defects			
		Sev 1s	2	3	▲
		Sev 2s	107	97	▼
		Sev 3s	433	421	▼
End-to-End Testing	<ul style="list-style-type: none"> Phase 1 of End-to-End Testing underway; first phase focuses on running E2E functions “string” in the integrated environment with a common dataset: <ul style="list-style-type: none"> String 1: CRR completed auction String 2: Outage Scheduler String 3: Market Web Services String 4: Day-Ahead Market String 5: Reliability Unit Commitment String 6: Real-Time Market /SCED String 7: Secondary AS Market 	iTest Defects			
		Sev 1s	2	1	▼
		Sev 2s	92	67	▼
		Sev 3s	89	73	▼
Market Trials	<ul style="list-style-type: none"> Preparing 30-day Market Notice for SEM Go-Live Market Trials submission testing begins October 				
Market Readiness	<ul style="list-style-type: none"> Targeting 35 MP outreach site visits Identified key resources to execute program 				
ERCOT Readiness	<ul style="list-style-type: none"> Identified 20 departments affected by nodal process; completing detailed transition plans 255 employees yet to complete nodal training (remainder in compliance) 				
Operational Readiness	<ul style="list-style-type: none"> System cutover validation and implementation under way NMMS performance testing under way 				

Program Issue: Handling CMM Delays for Nodal Program

◇ Potential Milestone Impact: Complete Integrated Systems

Issue: Handling CMM Delays		Delays in completing the detailed requirements and designs for CMM have occurred because of turnover in both ERCOT and vendor staff. There are limited business resources allocated to complete creation of requirements and to perform reviews.		
Issue Life Cycle State				
Plan	Manage			
Mitigation Plans		Who	Target Date	Current Status
1. Break the definition and development of remaining CMM capability into incremental releases. Modify contract with vendor to fit the approach.		H. Parrish	COMPLETE	Complete 6/19/09 SOW was executed this week
2. Identify ERCOT business resources to ensure the plan can be executed.		H. Parrish	COMPLETE	Complete 6/5/09 2 backfill positions filled
3. Identify vendor resources to ensure the plan can be executed.		H. Parrish	COMPLETE	Complete 6/29/09 Triple Point staff coming to ERCOT site, to fix defects found during testing
4. Receive software and perform FAT in increments, to keep overall program on schedule.		H. Parrish	8/14/09	07/20/2009-All deliverables have been received and Phase 1 FAT targeted for Mid Aug and the Phase 2 FAT by Feb 2010 6/29/09 Increments needed for end-to-end testing will be complete by end of July, with other changes delivered by Feb. 2010.

ERCOT-Wide Issue: Zonal Resource Constraints for Nodal Program

◇ Potential Milestone Impact: Complete Integrated Systems

Issue: Zonal Resource Constraints for Nodal Program		Because the Nodal go-live date has been delayed, there are a number of Zonal projects, PRRs, and IMM suggestions for Zonal improvements that result in resource constraints for the Program.		
Issue Life Cycle State				
Plan	Manage			
Mitigation Plans		Who	Target Date	Current Status
1. Manage list of PRRs and SCRs to a resource plan that uses a strategy to avoid impacting program personnel resources when delivering additional Zonal enhancements.		D. Forfia D. Troxtell	Ongoing	6/19/09 – Comprehensive round of EAC reviews have been conducted with all Nodal projects 5/15/09 – Meetings were held, to review EACs with Mike Cleary and Janet Ply, with updates made
2. Manage Project Priority List (PPL) with clear view of resources needed for any projects in flight or about to be launched, with a strategy to avoid impact on Nodal personnel resources.		D. Forfia D. Troxtell	Ongoing	6/17/09 – Solution has been established to be used for monthly data analysis and resolution of resource constraints. In the process, effort hours are gathered for Zonal projects, Nodal work, and Base work. Over-allocations are determined, and meetings are held to resolve.

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	Tier 1: 10/5/09 Tier 2: 12/15/09 Tier 3: 11/30/09	7/17/09 – Work is underway to trace protocols, requirements, and test cases; alignment and gap analyses are in progress
2. Add team members to the nodal program with Texas market experience to ensure readiness for Market Trials. Have them assess completeness of requirements addressed by the software new/tailored for the Texas nodal market and participate in end-to-end testing.				B. Day/K. Farley	Ongoing	7/17/09 – Work is in progress, with one team member consulted by those doing integration test planning 6/5/09 – Two team members are on board who have Texas market expertise, working in Betty Day's team on Protocol Traceability
3. Keep the oversight groups apprised of progress.				M. Cleary	Ongoing	4/13/09 Risk incorporated into the set being reported externally; will be maintained actively.

ERCOT-Wide Risk: Data Center Capacity Concerns

◇ Potential Milestone Impact: Nodal Go-Live

Risk: Data Center 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	7/17/09 Work is in progress 3/31/09 ILM Roadmap has been completed by SAIC, and next planning activities underway ERCOT project PR 90006_01 Commercial Systems Information Lifecycle Management: Project
2. Expand current data center space, and build out new data center, to increase ERCOT data center capacity.				D. Forfia	TCC1 build out complete 9/09 South DC in production Feb 2011 TCC3 in production May 2011	7/31/09 TCC Expansion construction is ahead of schedule. New Data Center construction is underway.
3. Validate and monitor Nodal data capacity assumptions for Go Live				D. Forfia	Ongoing	7/17/09 Status reports are provided to the Board of Directors in executive sessions

Program Risk

Integrity of Network Model Data from Market Participants

◇ Potential Milestone Impact: Nodal Go-Live

Risk: The model of the physical network inhibits healthy economic signals to the market				Some market participants may not populate the network model with all required transmission element data and attributes. This inaccurate model may not solve, or it may create erroneous solutions. This can make the nodal systems appear to be functioning improperly.		
Risk Life Cycle State						
Define	Plan	Manage	Watch			
Mitigation Plans				Who	Target Date	Current Status
After Single Entry Model Go-Live, ERCOT will engage TSPs to validate the network model, in preparation for Market Trials				M. Mereness	September, 2009 through February, 2010	6/9/09 ROS and NDSWG will be engaged to determine the activities required during this validation period
Each TSP will confirm that they have populated the model with data that is complete and accurate, and that they are prepared to transition to the Nodal Protocol timeline for updates.				V. Gates M. Mereness	February, 2010	Plans TBD
ERCOT will work with market participants to review the quality of solutions with the model data and identify areas in which data accuracy needs to be improved.				V. Gates M. Mereness	February, 2010 through December, 2010	Plans TBD