



# Nodal Program Update

Jason Iacobucci  
Nodal Program Manager

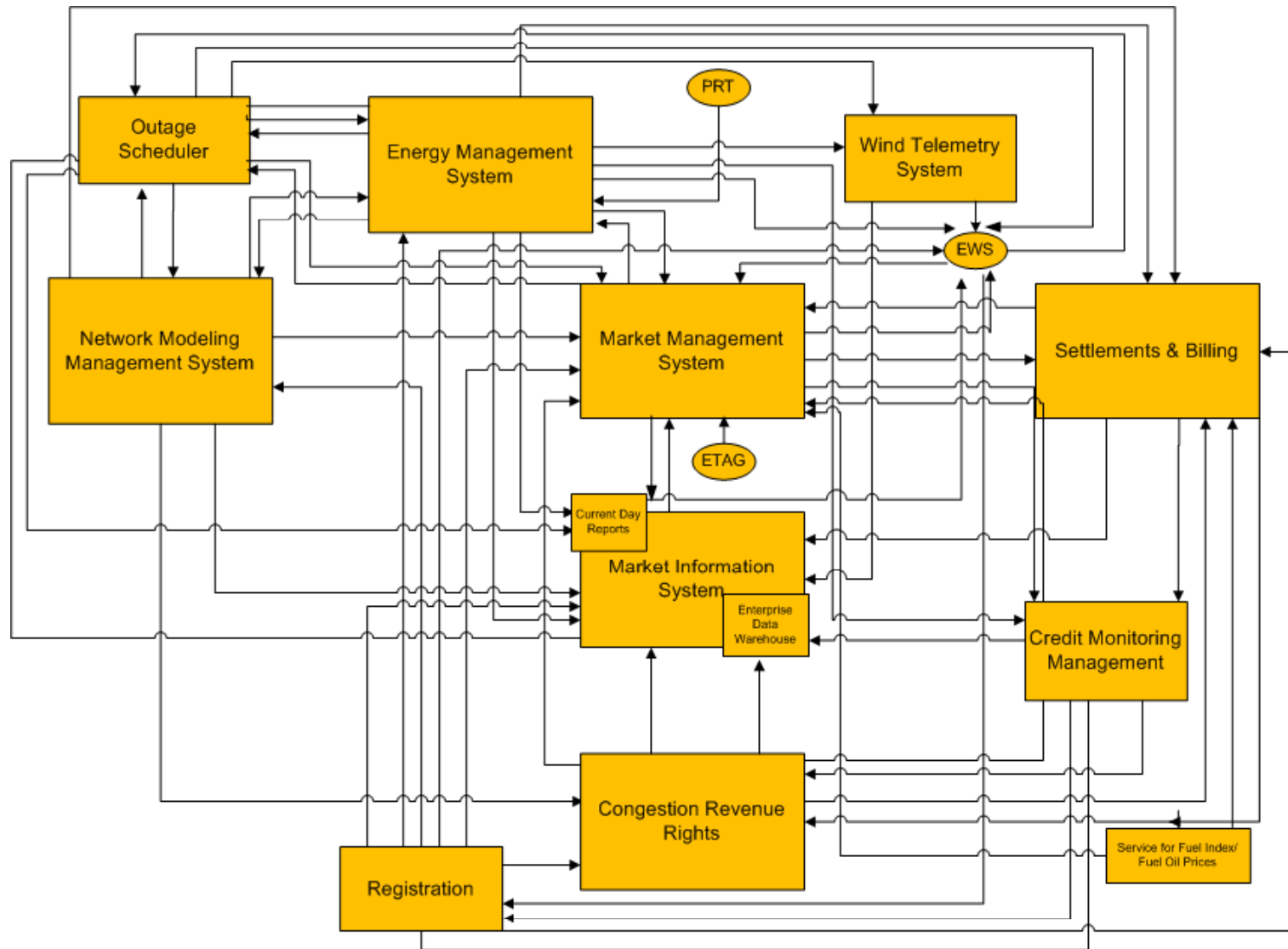
**Special Nodal Program Committee**

**14 September 2009**

# Today's Agenda

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

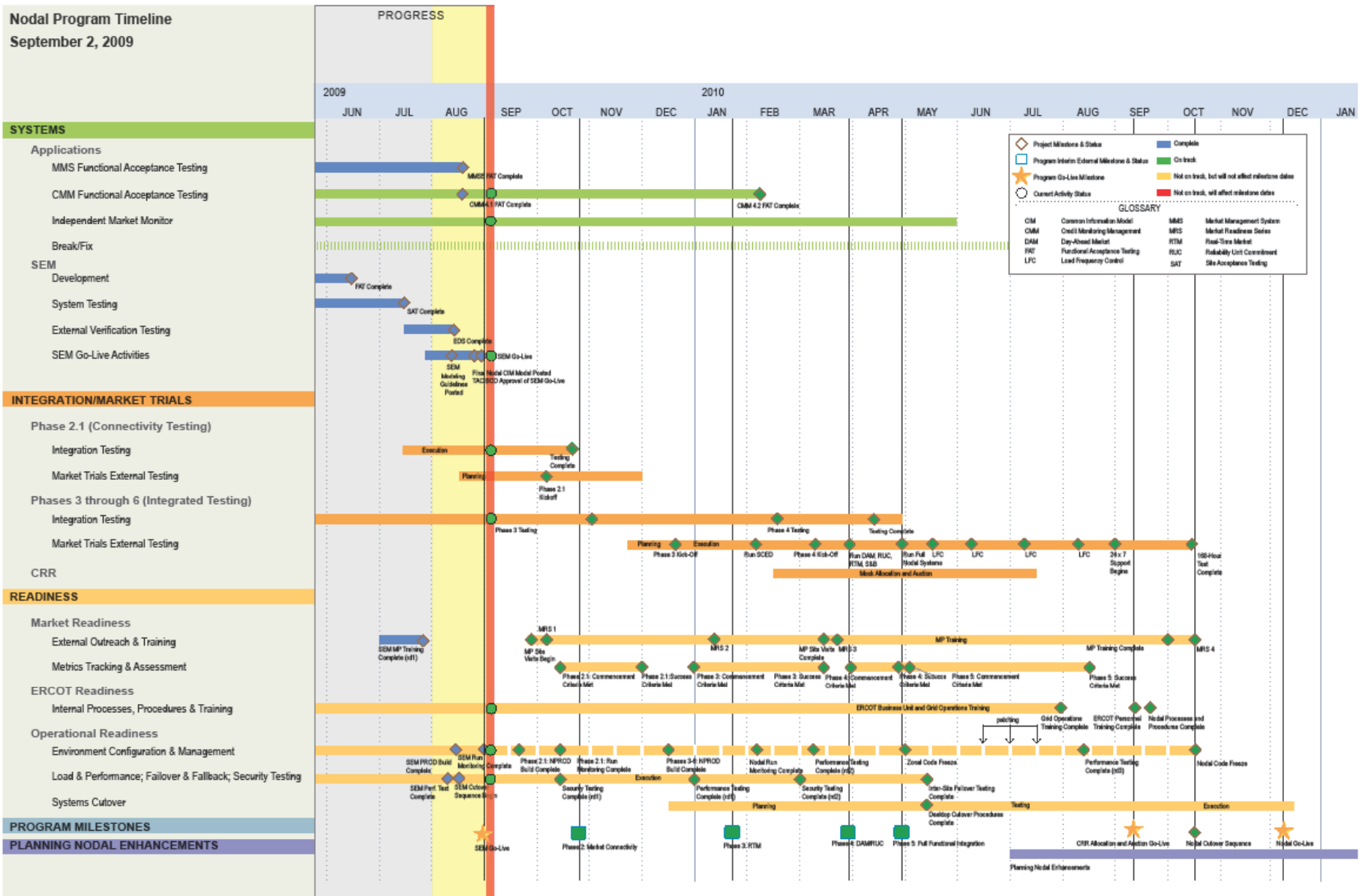
# Nodal Systems Blueprint



# Nodal Timeline

## Nodal Program Timeline

September 2, 2009



# Completed Milestones

## ■ **Program Milestone: SEM Go-Live**

### ◆ Included the following project milestones

- Systems/SEM/External Verification Testing
  - EDS complete
- Systems/SEM/Go-Live Activities
  - SEM modeling guidelines posted, final nodal CIM model posted; TAC/BoD approval of SEM Go-Live
- Readiness/Operational Readiness/Environment Configuration & Management
  - SEM PROD build complete, SEM monitoring complete
- Readiness/Operational Readiness/Load & Performance
  - SEM performance test complete, SEM cutover sequence begins

### ◆ **Project Milestones**

- Systems/Applications/MMS Functional Acceptance Testing
  - MMS5 FAT complete – Aug. 21
- Systems/Applications/CMM Functional Acceptance Testing
  - CMM4.1 FAT complete – Aug. 21
- Integration Testing
  - All core integration components verified in iTest

# Single Entry Model Go-Live Update

- **SEM went live on time Aug. 31**
- **Early results (as of Sept. 4)**
  - No functional issues
  - 8 of 20 TSPs have successfully submitted 130 NOMCRs
  - >75% of Help Desk tickets have been access-related
  - Maximum of 13 concurrent users
  - Additional configuration and performance tuning continues to improve performance
- **Monthly touch points will be established with MPs to verify integrity of network model data**

# Integration Project Testing Status

- **Currently realigning interface and adapter testing delivery to future program milestones**
  - Phase 2 (Market Connectivity)
  - Phase 3 (Real-Time Market)
  - Phase 4 (Day-Ahead Market, Reliability Unit Commitment, Settlements & Billing)
- **Completed technical verification testing of Phase 2 connectors**
  - Some technical connector testing rescheduled to align with Phase 3 and Phase 4
- **No impact to Nodal Program milestones**

# Upcoming Milestones

## ■ Program Milestones

- Phase 2: Market Connectivity

## ◆ Project Milestones (30 day look-ahead)

- Readiness/Market Readiness/External Outreach & Training
  - MP site visits begin
- Readiness/Operational Readiness/Environment Configuration & Management
  - Phase 2.1 NPROD build complete
- Inclusion of progress measures



# Upcoming Program Milestone Definition

## ■ Phase 2: Market Connectivity

### – Scope

- Market Participant interface testing (API, UI)
- Market System Rules Validation - Phase 1 (as defined in MMS – Explanation of Market Participant Submission Items v0.25 document)

### – Objectives

- Make available Market Trials environment with latest version of MMS, Market Manager UI and External Web Services
- Provide MPs access to Market Trials environment to complete development and qualification preparation

### – Schedule

- Sept.-Oct.: Bi-weekly Market Calls
- Week of Oct. 5: Kickoff meeting
- Oct. 28: Market Connectivity

## Program Measures

- **Current baseline execution index (BEI) and earned value (EV) measures give equally weighted credit for completed tasks**
- **New performance factor will reflect task's completion percentage, with weighting factor for each task (based on the associated effort)**
- **Weighted percentage-completion data rolled up to summary**
  - Performance factor derived solely from summaries
- **Four projects part of initial performance factor index (PFI) computation**
  - Integration Testing (INT)
  - Market Trials (MT)
  - ERCOT Readiness & Transformation (ERT)
  - Operational Readiness Testing (ORT)

\* Reference Appendix slides for additional details regarding PFI calculation process

## Performance Factor Index (PFI) Current Status

- **Initial baselines and weighting (weighting will be based on initial estimates of effort/work required)**

Project	Weight	Forecast %	Est %	PFI*	Forecast Wgt.*	Est. Wgt.*
ERT	127,359	11.65%	14%	1.20	14,838	17,830
INF	236,728	17.08%	14%	0.82	40,440	33,142
MT	174,399	0%	0%	0.00	0	0
INT	95,145	0%	0%	0.00	0	0
Program	633,631			0.92	55,278	50,972
				<i>* As of July</i>		

- PFI 1.00: optimum; shows program effort on track according to estimated work
- PFI <1.00: program's performance behind budgeted effort; work is slipping based on estimated work
- PFI >1.00: program's performance ahead of the budgeted effort; work is ahead of budgeted work
- PFI should be as near to 1.00 as possible (good work estimation, efficient delivery)

# Nodal Program Risks/Issues Approach

- **Program risks/issues to be prioritized as they pertain to next major market deliverable**
  - October Market Connectivity
  - Subsequent functional deliveries for MP testing
- **General programmatic risks/issues, proposed mitigations and impact assessments**
  - Included in daily PMO discussions
  - Escalated to marketplace when needed
- **For example ...**
  - CMM's delivery status has low impact to current program deliverables
  - Issues related to Market Connectivity have relatively high impact

# Nodal Program Risks & Issues

- **Immediate**
  - Risk: Reconciling protocols, systems and market expectations
  - Risk: Integration Testing
- **Long-Term**
  - Risk: Data Center capacity concerns

## External Audit Status Summary

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



# Market Readiness

Vikki Gates  
Readiness & Transformation

**Special Nodal Program Committee**

**14 September 2009**

# Participant Readiness Touch Points

2009

	September	October	November	December
<b>Meetings</b>	<ul style="list-style-type: none"> <li>• NATF 9/1</li> <li>• NATF 9/29</li> </ul>	<ul style="list-style-type: none"> <li>• NATF 10/27</li> </ul>		<ul style="list-style-type: none"> <li>• NATF 12/8</li> </ul>
<b>Training</b>	<ul style="list-style-type: none"> <li>• Nodal 101</li> <li>• LSE 201</li> </ul>	<ul style="list-style-type: none"> <li>• Nodal 101</li> <li>• LSE 201</li> <li>• Generation 101</li> <li>• Basic Training</li> </ul>	<ul style="list-style-type: none"> <li>• Nodal 101</li> <li>• LSE 201</li> <li>• Generation 101, 201</li> <li>• Economics of LMP</li> <li>• Transmission 101</li> <li>◆ Settlement Workshops</li> </ul>	<ul style="list-style-type: none"> <li>• Nodal 101</li> <li>• LSE 201</li> <li>• Generation 101, 201</li> <li>• Basic Training</li> <li>• Economics of LMP</li> <li>• Transmission 101</li> </ul>
<b>Outreach</b>	<ul style="list-style-type: none"> <li>• Material preparation</li> <li>• Full schedule confirmation</li> <li>◆ 3 site visits: w/o 9/28</li> </ul>	<ul style="list-style-type: none"> <li>◆ Readiness Center</li> <li>• Limited ERCOT metrics</li> <li>• 6 site visits</li> </ul>	<ul style="list-style-type: none"> <li>• Additional ERCOT &amp; MP metrics</li> <li>• 6 site visits</li> </ul>	<ul style="list-style-type: none"> <li>• 3 site visits</li> </ul>
<b>Market trials</b>	<ul style="list-style-type: none"> <li>• Last Resource registration data collection window open</li> <li>• Bi-weekly market calls</li> </ul>	<ul style="list-style-type: none"> <li>• Bi-weekly calls</li> <li>◆ 2010 Market Trials Roadmap: w/o 10/5</li> <li>◆ Technical Workshop</li> <li>■ Market Connectivity open to MPs</li> </ul>	<ul style="list-style-type: none"> <li>• Bi-weekly calls</li> <li>• Voluntary MP connectivity testing</li> <li>◆ MP Handbooks                             <ul style="list-style-type: none"> <li>• SCED/LFC</li> <li>• CRR</li> <li>• DAM/RUC</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Bi-weekly calls</li> <li>• Outage Scheduler</li> <li>• Settlement</li> </ul>



# Upcoming Milestones

## **Program Milestones**

- Phase 2: Market Connectivity

## **Market Readiness Project Milestones (30 day look-ahead)**

- Readiness/Market Readiness/External Outreach & Training
  - MP site visits begin (week of Sept. 28)

## Outreach Candidates

**ERCOT is proactively contacting the following entities to request a site visit. Additional participants will be accommodated where the schedule permits.\***

- **AEP**
- **ANP**
- **APX**
- **Austin Energy**
- **BP**
- **Brazos**
- **BTU**
- **Calpine**
- **CPS Energy**
- **Constellation**
- **Direct Energy**
- **Eagle Energy**
- **Exelon**
- **Garland**
- **LCRA**
- **Luminant**
- **Nextera/FPL Energy**
- **NRG Texas**
- **Occidental**
- **Shell**
- **STEC**
- **Suez**
- **Tenaska**
- **Topaz Energy**

\* Represents:

- Level IV QSE
- NATF participation
- Vendor diversity



# Traceability

Betty Day  
Program Control & Review

**Special Nodal Program Committee**  
**14 September 2009**

# Protocol Traceability Effort Update

Tier 1 Sections				
	Definition	SME Analysis/Validation	Begin Reviews w/Business	Target for Reports to NATF
<b>Section 7</b>	Congestion Revenue Rights	<b>85-90%</b>	<b>In progress</b>	<b>Sept</b>
<b>Section 8</b>	Performance Monitoring	<b>75%</b>	<b>9/03</b>	<b>Nov*</b>
<b>Section 3</b>	Management Activities for the ERCOT system	<b>40%</b>	<b>9/15</b>	<b>Nov</b>
<b>Section 4</b>	Day Ahead Operations	<b>5%</b>	<b>9/22</b>	<b>Oct</b>
<b>Section 5</b>	Transmission Security Analysis and RUC	<b>5%</b>	<b>9/29</b>	<b>Nov</b>
<b>Section 9</b>	Settlement & Billing	<b>5%</b>	<b>10/01</b>	<b>Nov</b>
<b>Section 6</b>	Adjustment Period and Real-Time Operations	<b>15%</b>	<b>10/20</b>	<b>Dec</b>
<b>Section 17</b>	Market Monitoring and Data Collection	<b>0%</b>	<b>10/22</b>	<b>Dec</b>
<b>Section 16.11</b>	Financial Security for Counter-Parties	<b>0%</b>	<b>10/27</b>	<b>Dec</b>

**Tier 2 (Moderate Impact): 10, 11, 12, 13, 20, 22 (Dec. '09 completion target)**  
**Tier 3 (Low Impact): 1, 2, 14, 15, 18, 19, 21, 23, 24 (Nov. '09 completion target)**

\* Delays in approving performance criteria may affect date.



# Financial Review

**Special Nodal Program Committee**

**14 September 2009**

**The nodal financials will not be available until Sept. 14.**

Questions ?

# Appendix



# Program Risk: Reconciling Protocols, Systems and Market Expectations

## ◇ Potential Milestone Impact: Market Trials

<b>Risk: Reconciling Protocols, Systems and Market Expectations</b>				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	<b>Manage</b>	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	8/7/09 – Work is underway to trace protocols, requirements and business processes alignment analyses are in progress.
2. Add team members to the nodal program with Texas market experience to ensure readiness for Market Trials. SMEs will report requirements to testing traceability gaps to ERCOT business owners for resolution.				B. Day K. Farley	Ongoing	8/7/09 – SMEs were added to the team in May. 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	4/13/09 Risk incorporated into the set being reported externally; will be maintained actively.

# Program Risk: Integration Testing

## ◇ Potential Milestone Impact: Market Trials

<b>Risk: Integration Testing</b>				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	<b>Manage</b>	Watch			
Mitigation Plans				Who	Target Date	Current Status
<ul style="list-style-type: none"> <li>Planned Integration Test phases and associated functional and technology components.</li> <li>Created effort-based testing delivery work plan to prioritize and align deliverables to key external milestones.</li> <li>Instituted daily PMO meetings to manage and mitigate day-to-day risks to scope and schedule deliverables.</li> </ul>				PMO	Ongoing	<p>9/2/09 – Planning of Test phases and associated work plan has been completed</p> <p>Execution of work plan, with specific focus on October Market Trials functionality has begun</p>

# ERCOT-Wide Risk: Data Center Capacity Concerns

## ◇ Potential Milestone Impact: Nodal Go-Live

<b>Risk: Data Center Capacity Space Concerns</b>		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	<b>Manage</b>	Watch	
Mitigation Plans		Who	Target Date	Current Status
1. Establish an Information Lifecycle Management approach to manage the life cycle of data being managed.		D. Forfia	Implementation expected Q1 2010 for Retail Applications	ERCOT project PR 90006_01 Commercial Systems Information Lifecycle Management Project will be presenting as an update during the October Board of Directors Meeting, and will request Execution and Funding approval at the November Board of Directors Meeting
2. Expand current data center space, and build out new data center, to increase ERCOT data center capacity.		D. Forfia	TCC1 build out is complete  Bastrop DC in production Feb 2011  TCC3 in production May 2011	TCC Expansion commissioned as of 9/2/09
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

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# Audit Points Complete – to be Verified - 1

ID	Description	Action Plan	Resp. Mgr.	Target Date
UT108-01	<p>The individual project budgets should be challenged in the following areas:</p> <ul style="list-style-type: none"> <li>a. Vendor contracts</li> <li>b. Contract staff</li> <li>c. Internal staff</li> </ul>	<ul style="list-style-type: none"> <li>a. Long –term vendor contracts will be negotiated with the assistance of a 3<sup>rd</sup> party negotiator, to address budget matters as well as others.</li> <li>b, c. Plans for use of contract staff, as well as the orderly transition to ERCOT teams are being examined, as we refine the schedule and plan for the remainder of the schedule</li> </ul>	J. Iacobucci	<ul style="list-style-type: none"> <li>a) Target: 6/30/09 for contracts to be renegotiated for 5 top vendors 3/31/09 Third party has been engaged to conduct one vendor negotiation as an initial effort, to be complete 3/31</li> <li>3/3/09 Have completed one review of our key contracts by an outside firm</li> <li>b) 3/30/09 resourcing of remaining effort shows growth in size of ERCOT teams and reduction of contract staff as testing effort is re-planned incrementally ; Program has engaged a resource manager to review all staffing.</li> </ul>

## Audit Points Complete – to be Verified – 2

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.
UTI-10-01A	Release Mgmt, Change Mgmt, Access Mgmt, Problem Mgmt	The Nodal PMO in conjunction with IT should ensure that proper education is provided to the Nodal PMs and new staff regarding the IT processes including contact information for those who support the IT processes.	Nodal team provides reports on incidents, from which IT does its problem management. Training was recently provided on nodal release and change management. The Access Mgt team is updating its documentation and will provide a concierge to train and assist with the process. Training on Access Mgt will be done the week of 5/4/09.	R. Morgan	D. Forfia
UTI-10-01B	Release Mgmt, Change Mgmt, Access Mgmt, Problem Mgmt	A plan will be developed to consolidate into one repository after the final releases of software are available for nodal go-live. Execution of the plan is not expected to occur until mid-2010.	A plan will be developed to consolidate into one repository after the final releases of software are available for nodal go-live. Execution of the plan is not expected to occur until mid-2010.	R. Morgan	D. Forfia
UTI-10-01E	Release Mgmt, Change Mgmt, Access Mgmt, Problem Mgmt	Since the version of the IDM project scheduled to be completed by November 2009 will only support SAS 70 related environments and Active Directory, a follow-on project is recommended. This project should focus on ensuring that the remainder of the ERCOT environments will be supported by IDM at Nodal go-live	After the first phase is complete, a plan will be built for the succeeding project. It is likely to be part of the 2010 PPL.	R. Morgan	D. Forfia

## Audit Points Complete to be Verified - 3

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.
UTI-10 – 01F	Release Mgmt, Change Mgmt, Access Mgmt, Problem Mgmt	Establish an IT SWAT team dedicated to the Nodal effort and focused on developing plans to mitigate the impact of potential Nodal workload waves on IT process performance.	A forecast is being built based on the nodal schedule, to establish a plan for adding contract staff to handle workload waves.	R. Morgan	D. Forfia
UTI-10 – 02A	Information Technology Infrastructure Library	Develop a program roadmap to guide the implementation ITIL V3 service management module with a target completion by December 2010 and assess the ability of the internal staff to support the ITIL effort while maintaining zonal operations and supporting Nodal testing and go-live.	A roadmap is under development. There are multiple projects in flight that will be synched with the roadmap, and some will need to be funded in the project list for 2010.	R. Morgan	D. Forfia
UTI-10 – 02B	Information Technology Infrastructure Library	Evaluate the costs and benefits of purchasing a complete set of ITIL processes and related consulting services from one of the vendors who have pre-configured their tools to support ITIL.	This will be included as an element of the roadmap being developed for implementing ITIL V3.	R. Morgan	D. Forfia
UTI-10 – 03A	Nodal Infrastructure Budget	The Nodal Program should continue to perform a “deep dive” on the INF project specifically focusing on challenging the work expected and the resources required to support the Nodal Program.	This is underway, as part of mapping out resource needs for all ERCOT resources - nodal and otherwise - for 2009.	R. Morgan	D. Forfia
UTI-10 – 03B	Nodal Infrastructure Budget	A reoccurring planning exercise between the INF project manager and the other Nodal project managers should occur to ensure that IT Operations and Infrastructure support requirements are more thoroughly assessed and forecasted.	This is underway, as part of resource management for all ERCOT resources - nodal and otherwise. A process will be established for monthly review.	R. Morgan	D. Forfia

# Audit Points Complete to be Verified – 4

ID.	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.
UTI-10 – 04B	Taylor Data Center Expansion Project Mgt	Continue to track and trend data center usage and available capacity to ensure that the actual usage remains within expected ranges.	Capacity planner in place, collecting data on capacity needs. Defining process for monthly review of needs.	R. Morgan	J. Floyd
UTI-10 – 05B	Vendor Performance Management	The Nodal Program should work with the vendor to expedite the release cycle and to decrease the average defect closure time. The overall process needs to be reviewed. The current process includes overhead activities that need to be streamlined to support upcoming test phases. Testing should drive the release schedule; the release schedule should not drive the testing.	Changes being made to how the work is planned and tracked, to streamline the process. Incorporating these changes into re-negotiated contracts with vendors.	J. Iacobucci	T. Baum
UTI-10 – 05C	Vendor Performance Management	The measure of defect closure time should be updated to reflect only the time spent by the vendor to correct assigned defects. The current values include contracting time, migration time and other factors that are not related to vendor performance. As introduced in Report #8, negotiations should continue with the vendors to deliver more value for the overall cost. Vendor costs continue to exceed industry peers.	Defect states will reflect changes agreed to in contract re-negotiations.	J. Iacobucci	T. Baum
UTI-10 – 06A	End-to-End Business Readiness Activities	Establish a common test bed with data from common business days to allow data validation logic to be fully exercised.	Common Data Set Approach communicated week of 4/20. Scheduling to release first data set version (DSV) on June 1. Goal is to establish a DSV with good data for E2E prior to the start of E2E testing as well.	J. Iacobucci	K. Ragsdale



## Audit Points Complete to be Verified- 5

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.
UTI-10-07A	Organization Assessment	A comprehensive organizational assessment should be completed to confirm that skilled staff is in place to support the Nodal Program. The objective of the assessment should be: 1) to verify that dual operations can be run and supported and 2) to confirm that ERCOT has the appropriate staff in place to support long-term Nodal Market operations.	Such an analysis has begun, in collaboration with the ERCOT HR function. A full assessment plan will be developed.	J. Iacobucci	A. Rinaldi
UTI-10-07B	Organization Assessment	ERCOT staff should be deployed in time for End-to-End testing to take advantage of the training opportunity and to assist with the dual operation workload.	Resource plans for End-to-End testing are being identified in the resource planning spreadsheet, with appropriate ERCOT staff handling their operations roles.	J. Iacobucci	D. Luedtke V. Gates

In addition, two audit points were verified as being complete on 5/27 – UTI10-4C and UTI10-5A

## Audit Points to Address from Utilicast Report 8

ID	Description	Action Plan	Responsible Director	Responsible Manager	Target Date
UT108-05	There should be immediate investment in new data center capacity to allow for expansion of IT infrastructure to support the Nodal Program.	A project has been initiated to expand the data center in Taylor (PR-80047). Planned occupancy date is September 2009, with plan to add or move hardware under development. Additional data center space planned as part of the Met Center disposition project (PR-80001). Those data centers should be online in early 2011. Plans are under development to provide capacity prior to those new data centers becoming available.	R. Morgan	J. Floyd	Early 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 – 01C	Release Mgmt, Change Mgmt, Access Mgmt, Problem Mgmt	The Nodal Project Team should continue to require the implementation of ClearCase for use as the automatic code deployment tool, and the Nodal PM's should be required to use their assigned Release Coordinators to facilitate their use of the RM process.	<b>CLOSED</b> – The Release Management (RM) Team has worked with the nodal teams to implement the approach. The nodal teams need to follow the approach and utilize the RM tool.	M. Cleary	J. Iacobucci	9/4/09
UTI-10 – 01D	Release Mgmt, Change Mgmt, Access Mgmt, Problem Mgmt	The Nodal Project Teams should work with their Release Coordinators to refine their release planning processes and work toward a forecasting accuracy of +/- 20% or better.	<b>CLOSED</b> – The RM team is tracking metrics at a more granular level and reaching out to project teams where improvement opportunities are identified. RM will continue to monitor these reports and pinpoint problem areas. As the integrated nodal solution continues to mature, the program will continue to expect improved forecasting accuracy.	M. Cleary	K. Kasparian D. Gwinn	9/4/09
UTI-10 – 04A	Taylor Data Center Expansion Project Mgt	Continue to manage the Taylor Control Center Expansion project to ensure that the additional capacity is available, as planned, by October 2009.	Expansion is underway, controlled by ERCOT facilities; no budget or schedule issues known.	N. Capezzuti	S. Grendel	9/14/09

# Audit Points to Address from Utilicast Report 10 – 2

ID	Short Description	Recommendation	Action Plan Status	Resp. Dir.	Resp. Mgr.	Target Date
UTI-10 – 06B	End-to-End Business Readiness Activities	Use manual triggers, or other workarounds, to string together business functions to simulate End-to-End testing. This will be particularly beneficial in areas where ERCOT has unique market rules	<p>The End-to-End (E2E) strategy will define this. Manual triggers or workarounds (documented in test scripts) will be used where necessary to execute an end-to-end or bid-to-bill test.</p> <p>Not all of ERCOT's unique market rules will be executed in E2E testing. Due to time constraints, E2E will first execute a Base Case scenario, then a select set of scenarios expected to occur frequently after go-live.</p>	M. Nixon	A. Shepherd	9/17/09
UTI-10 – 06C	End-to-End Business Readiness Activities	Ensure Nodal processes and procedures are completed so they can be exercised during End-to-End testing	There is a plan 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.	V. Gates	J. Adams	9/17/09

# Audit Points to Address from Utilicast Report 10 – 3

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.	Consolidate the results of the review of protocols to system capabilities and identify any gaps.	B. Day	K. Farley	9/4/09
UTI- 10 – 08	Contingency Plans for Failed Data Transfers	Utilicast recommends that the Nodal Program should create and execute contingency plans for failed data transfers which would include the following components: 1) Create manual workarounds for situations where interfaces fail to enable continued End-to-End operations. 2) Create procedures to correct flawed or missing data from upstream systems. The workarounds and procedures could evolve into a long-term data controls and data quality management process. 3) Utilize these tools now to support functional Integration Test while technical components are still evolving.	1. Manual workarounds will be created where needed, documented either as a part of the test script or as a defect. 2. Our common data set approach details how data will be collected, made common, released, and managed in terms of defects and modifications. 3. Monitor this during integration testing to see what contingency plans may be needed.	M. Nixon	A. Shepherd	9/17/09

# Audit Points to Address from Utilicast Report 10 – 4

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