

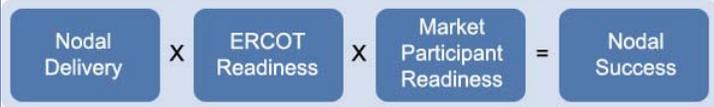


Texas Nodal Market Implementation: Program Update

ERCOT Board of Directors
17 June 2008

Jerry Sullivan (Executive Director)

- **Program Status**
- **Schedule**
- **AREVA**
- **ERCOT Staff and Market Participant Readiness**
- **Cost**



ERCOT Staff Readiness status is:



Amber status driven by staffing metric

MP Readiness status is:

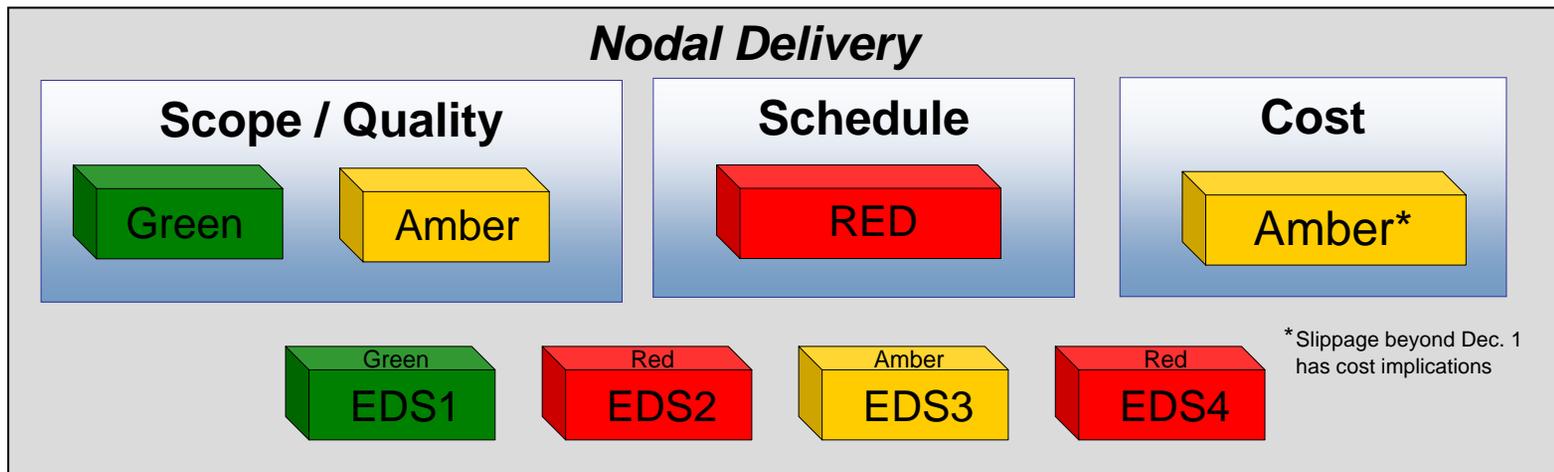


Significant recent improvement:
Amber status driven by MP10 (Resource Mapping) and MP11 (RARF data)

Nodal Delivery status remains:



Changed due to schedule impact



Issues (EDS):

- EDS 2 – Consistent improvements; primary issue remains obtaining consistent telemetry data to allow State Estimator to converge accurately
- EDS 3 – Trend within metrics is positive
- EDS 4 – Testing ICCP system failover, waiting on EMS 5 delivery to proceed with outage evaluation system functionality tests

The December 1 Nodal Go-Live date has been delayed

- **The slippage of the EMS Common Information Model (CIM) importer (combined with other software slippages and data population and validation concerns) necessitates a delay in the 168-hour test and a change to the Nodal “go live” date.**
 - The project needs CIM to work as it is integral to the exchange of information among key applications; however, work in all other areas continues unabated
 - We are analyzing the integration and testing required with the slippage of the EMS CIM importer and how the delay affects other applications (e.g., Network Model Management System, Market Management System, Outage Scheduler and the remaining downstream systems)
 - Options have been and will continue to be reviewed with TPTF

ERCOT is aggressively working to develop a revised integrated Nodal program schedule that is realistic and achievable

- **Process**

- Dedicate a team to drive development of the new schedule (**COMPLETE**)
- Standardize templates for individual project schedules, including all transition activities (**COMPLETE**)
- Re-estimate the durations of all project activities based on historical data (**Planned start: 6/16/08**)
- Identify comprehensive list of dependencies and link across project schedules, allowing schedules across projects to be dynamically generated as changes occur (**In Progress**)
- Develop the integrated master Nodal program schedule
- Review the schedule and options with TPTF and ERCOT

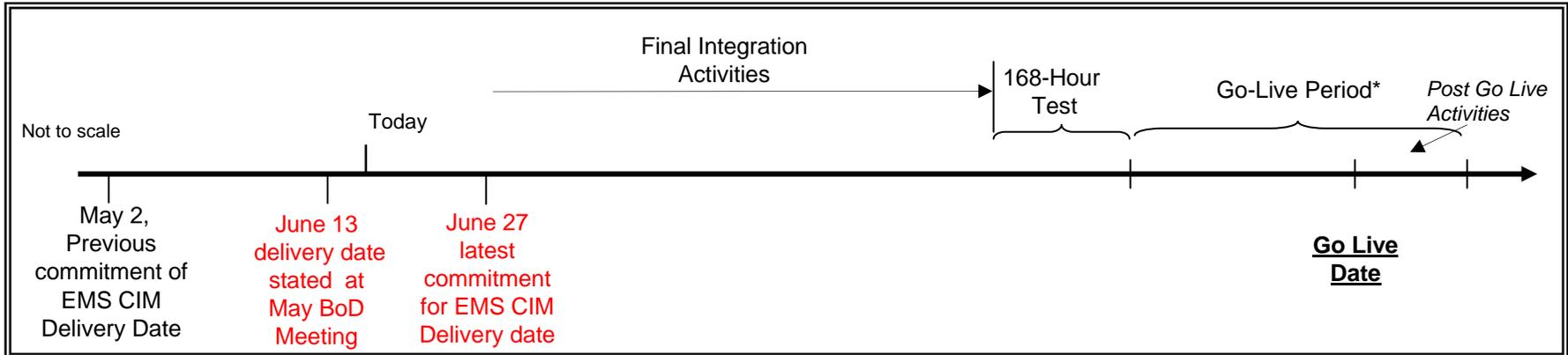
- **Timeline**

- The date for setting a new schedule date has not been finalized, but the team understands the sense of urgency as well as the importance of a realistic plan

- **In the meantime, ERCOT is:**

- Continuing with integration testing, data validation and other high value activities
- Improving processes (e.g., release management, data quality)

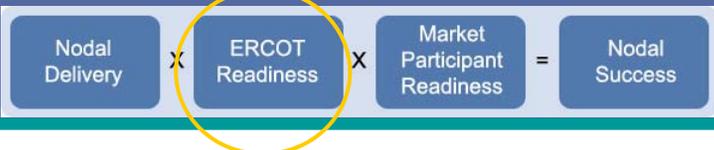
Critical Schedule Events/Activities



- The EMS CIM importer delivery continues to slip. The June 13th delivery date for FAT completion, communicated to the BoD at the last meeting, will not be met by AREVA.
- Majority of vendor software releases have been received; outstanding releases include:
 - NMMS (2 releases)
 - MMS 5 (+ 2 known major patches to MMS4)
 - EMS 5
- Current scope is expected to meet all protocols (up to baseline 2) in the revised schedule. Further NPRRs need to be closely evaluated for scope changes and impact to schedule.
- Changes in scope must be approved by the Executive Steering Board

There are several repercussions for the late arrival of CIM from the vendor

- **Delays in the CIM Importer impacts:**
 - The Nodal program needs the CIM Importers (EMS & MMS) functional to enable the consumption of information by key applications
 - FAT testing as well as overall deployment is delayed
 - Additional release of MMS to incorporate CIM
- **As of June 5, AREVA estimated delivery date is June 27. ERCOT staff views a more likely timeframe is mid to late July (free of Severity 1 (critical data loss) and Severity 2 defects (loss of functionality without a “workaround”))**
- **Network Model Management System - Data Validation**
 - The data in NMMS is dependent on a variety of sources and CIM allows for data exchange
 - Data cleansing will likely be an extensive effort, possibly becoming part of the overall program critical path
 - MMS and EMS cannot validate true workflows or conduct functional end-to-end testing until data validation takes place

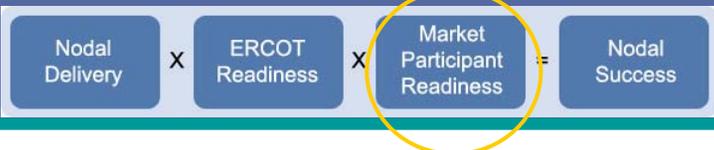


ERCOT Staff readiness status is **AMBER**



	Engagement	Training	Process	Staffing	Test	Overall
ERCOT	●	●	●	▼	●	▼
Information Technology	●	●	●	▼	●	▼
System Operations	●	●	●	▼	●	▼
Market Operations	●	●	●	▼	●	▼
System Planning	●	●	●	▼	●	▼
Corporate	●	●	●	▼	●	▼

- **Engagement (green)**
 - New survey results came out at the end of May - ERCOT remains fully engaged
- **Training (green)**
 - a new round of training for ERCOT operators started this week
 - completion target is August 31, 2008
- **Process (green)**
 - updated weekly
 - completion target is August 31, 2008
- **Staffing (amber)**
 - RAG rule based on June 1st date (requires >95% staffing for green status – ERCOT is currently ~93% staffed)
 - recruitment is ongoing
- **Testing (green)**
 - no recent developments



Market Participant readiness status is **AMBER**



	Engagement	Connectivity	Registration and Qualification	Telemetry	Training	Trials Participation	Overall
All Market Participants	●	●	▼	●	●	●	▼
QSE with Resources	●	●	▼	●	●	●	▼
QSE without Resources	●	○	●	○	●	●	●
TDSP	●	○	○	●	●	●	●
LSE	■	○	○	○	○	○	■
CRR	○	○	○	○	○	○	○

- **Engagement (>95% green)**
 - will be updated June 12th when Cycle 4 Survey is scored
- **Connectivity (>95% green)**
 - no change
- **Registration and Qualification (amber)**
 - MP10 (Resource Mapping)
 - 33 resource entities still need to submit initial data (as of 5pm 6/3/08)
 - MP11 (RARF Submissions)
 - 98% of MWs have been reported (as of 5pm 6/3/08)
 - Both MP10 and MP11 are amber based on new interpretations of the metrics (see next slides)
- **Telemetry (green)**
 - no change
- **Training (>95% green)**
 - will be updated June 12th when Cycle 4 Survey is scored
- **Trials Participation (>95% green)**
 - no change

MP-11: Missing authorized RARFs [Resource Entities]

GENERATION

CAPRICORN RIDGE WIND LLC (RE)
POST WIND FARM LP
CAPRICORN RIDGE WIND II LLC (RE)
TEXAS BIG SPRING LP

LOAD RESOURCE

EAGLE ENERGY PARTNERS I LP (RES)
BASS ENTERPRISES PRODUCTION CO

- **Status**

- Close to receiving all expected RARFs
 - Currently 99.5% of MWs are reporting in.
- RARF data review is underway.
 - Review primary data set for Nodal systems testing (SCED, LFC, RUC, DAM)
 - Detailed reviews of MPs representing approximately 75% of MWs complete to date.

Cost: Element Summary

Contingency earmarks remain below \$15 million, but delay beyond Dec 1 will have cost impacts.*

*Does not include impacts of schedule change

Nodal Program Cost Element Summary (\$ Millions)

Cost Element	Through April 2008			Estimate at Complete (EAC)		
	Revised Budget	Actual	Var. (o)/u Budget	Revised Budget	Forecast	Var. (o)/u Budget
Internal Labor	\$ 32.8	\$ 31.8	\$ 1.0	\$ 47.9	\$ 48.1	\$ (0.2)
External Labor	76.6	70.6	6.0	94.9	95.9	(1.0)
Vendor	56.6	60.9	(4.3)	76.8	85.1	(8.3)
Hardware / Software	56.9	57.8	(0.9)	59.2	59.3	(0.1)
Taxes and Other	11.9	12.3	(0.4)	15.1	13.5	1.6
Subtotal	\$ 234.8	\$ 233.4	\$ 1.4	\$ 293.9	\$ 301.9	\$ (8.0)
Contingency	-	-	-	15.0	7.0	8.0
Total Nodal Program	\$ 234.8	\$ 233.4	\$ 1.4	\$ 308.9	\$ 308.9	\$ -
Finance Charge	7.9	8.7	(0.8)	10.6	10.6	-
Total	\$ 242.7	\$ 242.1	\$ 0.6	\$ 319.5	\$ 319.5	\$ -

Questions ?