

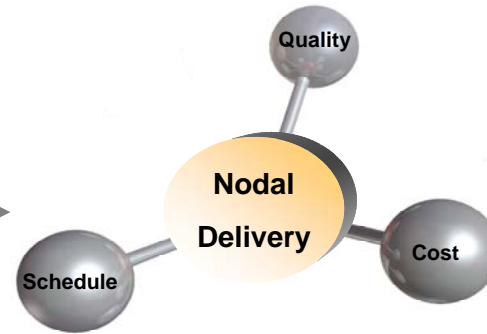


Texas Nodal Market Implementation  
Program Update

Jerry Sullivan

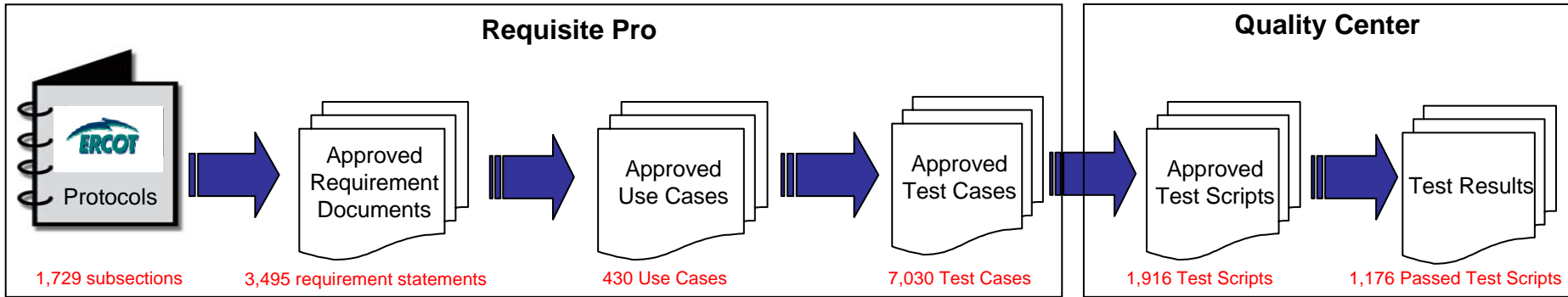
**Monthly Board of Directors Meeting**  
**January 15, 2008**

# Overall program status remains amber

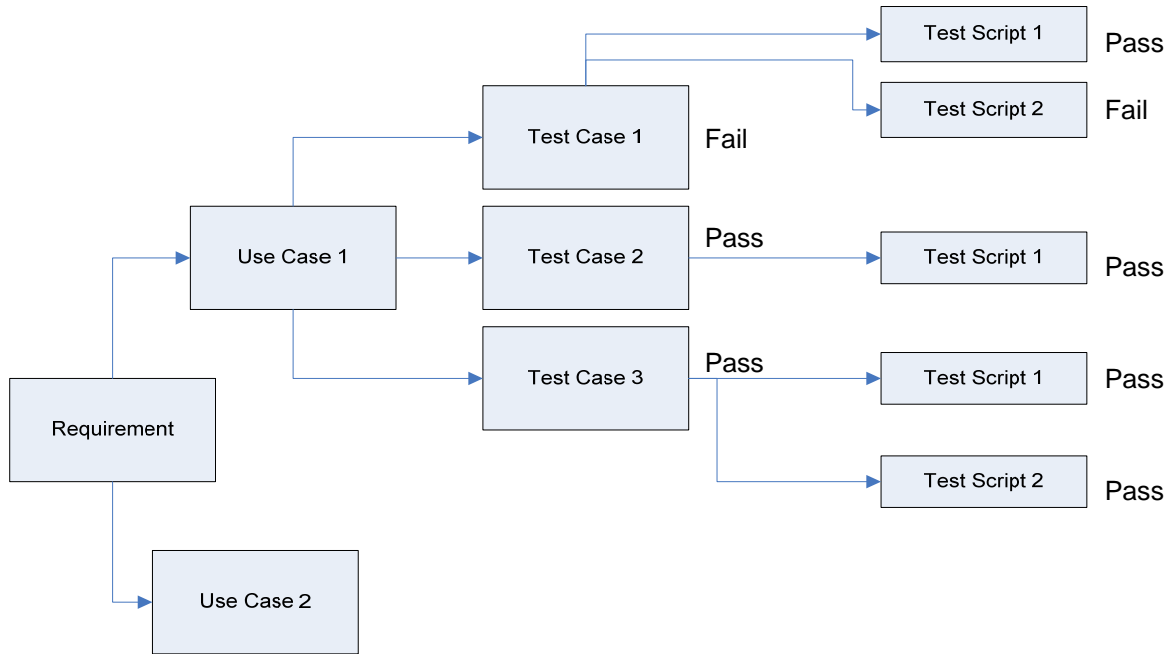


	Scope / Quality		Schedule	Cost
	Green	Amber	Amber	Red
Summary	<p>Currently fully aligned with protocols.</p> <p>Working with TPTF to maintain alignment</p>	<p>Test results are being managed in Quality Center and results are being used to track defects for resolution.</p> <p>Reports being published weekly to <a href="http://nodal.ercot.com">http://nodal.ercot.com</a></p>	<p>Issues around the MMS delivery schedule, infrastructure constraints and integration (including importing and exporting of the Network Model) are greatest threats to project schedule at this time</p>	<p>Currently forecasting to be above the 10% threshold. Additional support charges, finance charges, and contingency may be required.</p> <p>Preparing for Fee-Case in Feb re: budget requirements.</p>
Legend	<p><b>Red</b> Program is not aligned to protocols</p> <p><b>Amber</b> Program is aligned to previous protocol version</p> <p><b>Green</b> Program is aligned with current protocols</p>	<p>Current product quality is not sufficient for Nodal launch</p> <p>Most Nodal products currently achieve quality standards</p> <p>All Nodal products currently achieve quality standards</p>	<p>Go-live = &gt;30 days+</p> <p>Go-live = &lt;30 days+</p> <p>Go-live = 12/1/08</p>	<p>Estimate at Complete = &gt;\$263m + 10%</p> <p>Estimate at Complete = &lt; \$263m + 10%</p> <p>Estimate at Complete = &lt;\$263m</p>

# Focus to date has been on requirements coverage of the Protocols; Now additional focus on testing artifacts



## Testing coverage as defined in Quality Center:

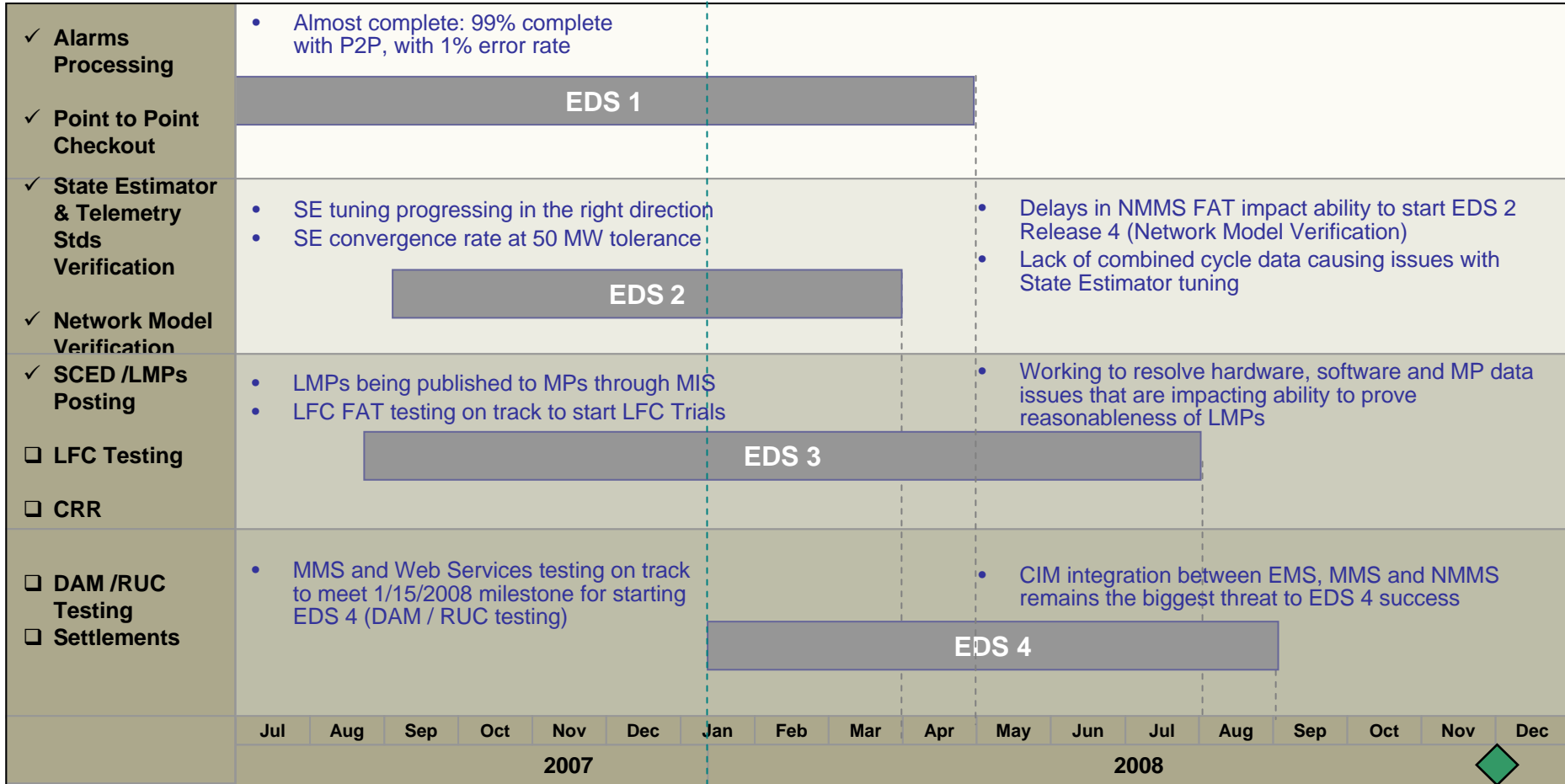


- We have coverage of the protocols
- We are fully aligned with the intent of the transition plan, the protocols, and the Commission order, however we may defer items with consultation with TPTF.
- We are undergoing a diligent effort to ensure that quality is tracked, reported, analyzed, and resolved
- In essence, testing is “under control”



## Achievements

## Issues



- Schedule is difficult, there are risks, but they are relatively known.
- TPTF, the Nodal Team, Market Participants are engaged.
- Costs now are relatively known, with certain risks

**Nodal Market Go-Live**



# Major risks to Go Live

Risk	Description	Likelihood	Impact on Go Live	Mitigation
MMS delivery schedule	<ul style="list-style-type: none"> <li>Tight delivery schedule constrains testing and defect cycles, impacts EDS trials schedule</li> </ul>	L	H	<ul style="list-style-type: none"> <li>Enhanced oversight of, and on-site working with, ABB</li> <li>Reallocation of work from ABB to ERCOT</li> <li>Overlap EDS with FAT testing</li> </ul>
Infrastructure constraints (power, space, cooling)	<ul style="list-style-type: none"> <li>Limits speed and scale of environment build outs, impacts development projects, integration and EDS trials</li> </ul>	H	L	<ul style="list-style-type: none"> <li>Prioritizing build out of environments and applications based on EDS schedule</li> <li>Planning active / standby EDS environment (Austin / Taylor) to eliminate short-term ITest need</li> <li>Building test environment in Blue Building server room</li> <li>Removing <u>all</u> non-essential equipment from Austin data center</li> <li>Compressing Nodal deployment footprint as much as possible</li> </ul>
Integration (including CIM Model)	<ul style="list-style-type: none"> <li>Lack of source systems and infrastructure limits ability to validate integration points, impacts re- factoring cycle times and costs</li> </ul>	M	M	<ul style="list-style-type: none"> <li>Building interfaces in advance of applications delivery based on available information expecting re-factoring</li> <li>Testing application and integration in available, sub-optimal environments</li> </ul>
	<ul style="list-style-type: none"> <li>Uncertainty over ability to integrate CIM models may impact data and system quality and testing</li> </ul>	H	L	<ul style="list-style-type: none"> <li>Working with 3 main vendors on multiple iterations of development and validation of CIM import/export</li> <li>Investigating contingency plan to preserve April 1st start of DAM / RUC EDS trials</li> </ul>



## Nodal Program Cost Element Summary - January 2008 (\$ Millions)

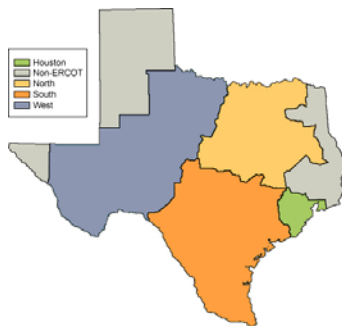
Cost Element	Through November 2007			Estimate at Complete (EAC)		
	Budget	Actual	Var. (o)/u Budget	Budget	Forecast	Var. (o)/u Budget
Internal Labor	\$ 20.4	\$ 23.3	\$ (2.9)	\$ 36.0	\$ 47.9	\$ (11.9)
External Labor	49.8	51.8	(2.0)	71.5	94.9	(23.4)
Vendor	41.1	38.1	3.0	56.4	76.8	(20.4)
Hardware / Software	50.2	53.2	(3.0)	58.8	59.2	(0.4)
Taxes and Other	9.9	5.6	3.0	14.7	15.1	(0.4)
Subtotal	\$ 171.4	\$ 172.0	\$ (1.9)	\$ 237.4	\$ 293.9	\$ (56.5)
Contingency	2.0	-	2.0	15.0	15.0	-
Total Nodal Program	\$ 173.4	\$ 172.0	\$ 0.1	\$ 252.4	\$ 308.9	\$ (56.5)
Finance Charge	5.3	6.2	(0.9)	10.6	10.6	-
Total	\$ 178.7	\$ 178.2	\$ (0.8)	\$ 263.0	\$ 319.5	\$ (56.5)



## Nodal Program Project Summary - January 2007 (\$ Millions)

Project Name	Through November 2007			Estimate at Complete (EAC)		
	Budget	Actual	Var. (o)/u Budget	Budget	Forecast	Var. (o)/u Budget
Integrated Design Authority (IDA)	\$ 6.6	\$ 6.8	\$ (0.2)	\$ 6.8	\$ 9.7	\$ (2.9)
Infrastructure (INF)	53.6	60.0	(6.4)	63.4	66.5	(3.1)
Network Model Mgmt System (NMMS)	10.4	6.3	4.1	12.3	14.6	(2.3)
Market Management System (MMS)	20.3	23.0	(2.7)	25.3	52.1	(26.8)
Energy Management System (EMS)	13.2	11.9	1.3	17.9	21.5	(3.6)
Congestion Revenue Rights (CRR)	5.9	5.5	0.4	6.3	8.1	(1.8)
Commercial Systems (COMS)	10.9	11.0	(0.1)	14.8	17.3	(2.5)
Electronic Data Warehouse (EDW)	1.9	1.5	0.4	4.0	4.1	(0.1)
Market Information System (MER-MIS)	4.2	4.8	(0.6)	7.2	9.3	(2.1)
Market Other (MER-OTH)	2.5	2.6	(0.1)	3.6	5.1	(1.5)
Market Training (MER-TRN)	6.7	4.4	2.3	10.1	9.1	1.0
Integration Testing (INT)	12.1	11.5	0.6	17.0	19.7	(2.7)
Early Delivery System (EDS)	7.3	6.4	0.9	22.6	21.2	1.4
ERCOT Readiness & Transition (ERT)	1.8	1.1	0.7	4.7	4.0	0.7
Enterprise Integration Project (EIP)	8.2	11.4	(3.2)	12.3	20.0	(7.7)
Program Control (PC)	5.8	3.8	2.0	9.1	11.6	(2.5)
Subtotal	\$ 171.4	\$ 172.0	\$ (0.6)	\$ 237.4	\$ 293.9	\$ (56.5)
Contingency	2.0	-	2.0	15.0	15.0	-
Finance Charges	5.3	6.2	(0.9)	10.6	10.6	-
Total	\$ 178.7	\$ 178.2	\$ 0.5	\$ 263.0	\$ 319.5	\$ (56.5)

# Questions ??



ERCOT Nodal Market Transition

