



ERCOT PMO Update

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Board of Directors Update
March 2006

2006 YTD Project Performance

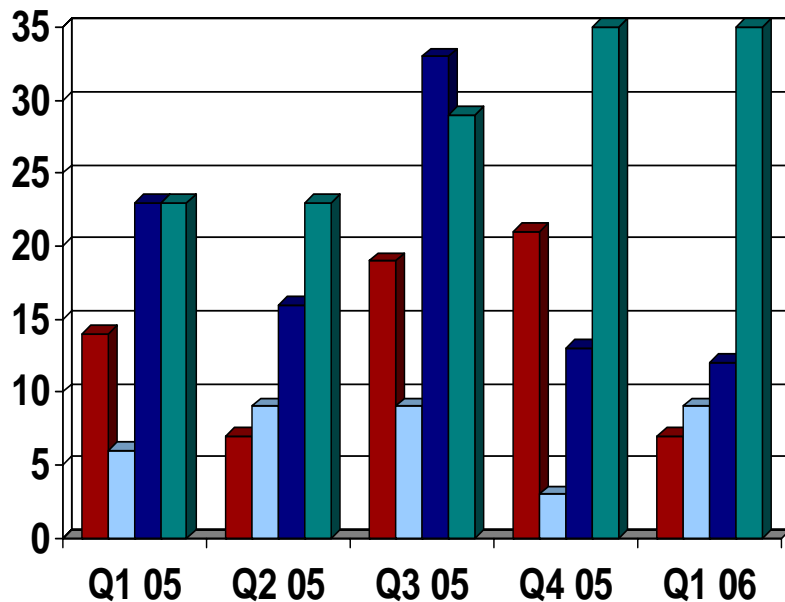
First Quarter Results (to 2/28/06)

- 4 completed in Feb, 7 YTD
- 9 in Initiation
- 12 in Planning
- 35 in Execution

Projects Completed in February

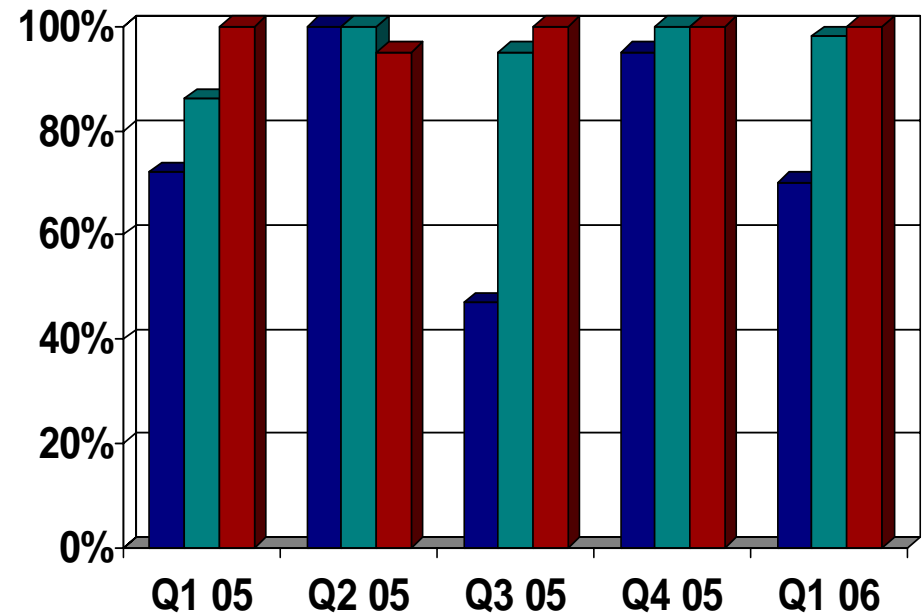
- PR-50136 EMMS Upgrade of OSI PI and OAG
- PR-40100 RTCA Archiving
- PR-40098 Performance Monitoring for SCADA/State Estimator
- PR- 50125 Production Storage

Project Activity



■ Completed ■ Initiation ■ Planning ■ Execution











Project Performance



■ On Time ■ On Budget ■ Deliverables



Major ERCOT Projects Summary

Project	Total Budget	Actual 02/28/06	Metrics	
<i>Duration/Information (Sponsor)</i>	<i>Phase/Scheduled Completion</i>		<i>Schedule</i>	<i>Budget</i>
Service Oriented Architecture (2004-2006)	\$6.1M	\$5.6M		
<i>3 separate projects over 12 mos. (R Giuliani)</i>	<i>Execution Phase/4th Qtr 2006</i>			
Enterprise Data Warehouse (2003-2006)	\$3.5M	\$2.6M		
<i>9 separate projects over 36+ mos. (R. Hinsley)</i>	<i>Execution Phase/3rd Qtr 2006</i>			
Operations Training Simulator (2005-2006)	\$3.4M	\$199K		
<i>Training Simulator System for Operators (S Jones)</i>	<i>Planning Phase/4th Qtr 2006</i>			
Enhancements to FasTrak Tools	\$2.5M	\$977K		
<i>Tool for Tracking Market Issues (R Giuliani)</i>	<i>Execution Phase/3rd Qtr 2006</i>			
Enhancements to SCR727 (2005-2006)	\$1.9M	\$358K		
<i>Preliminary Planning over 12 mos. (R Giuliani)</i>	<i>Planning Phase/2nd Qtr 2006</i>			



Project Performance by Program Area

ACTIVE & PROJECTED PORTFOLIO								
	Initiation	Planning	Execution	Total Active	On Time	On Budget	% On Time	% On Budget
CO	4	4	6	14	10	14	71.4%	100.0%
IO	1	1	5	7	6	7	85.7%	100.0%
MO	0	0	11	11	7	10	63.6%	90.9%
RO	0	3	3	6	4	6	66.7%	100.0%
SO	2	4	10	16	10	16	62.5%	100.0%
NODAL	2	0	0	2	2	2	100.0%	100.0%
Totals	9	12	35	56	39	55	70.0%	98.2%

Large Project Update

IT Operations Program Area

- PR-40070 Austin Test Environment
 - Project in planning ready to move to execution
 - Project now over \$1M requesting approval to go execution
 - Resolution will be presented for Board approval
- PR-50078 ERCOT Network Replacement
 - Project executing final contracts have taken 5 months
 - Need budget increase, resolution will be presented for Board approval
- PR-60011 TCC Data Center Optimization (formerly Virtualization)
 - Project to move into planning in support of Infrastructure Capacity
 - On the approved PPL, within capability, over \$1M
 - Presented as information only, will return for execution approval

Corporate Operations Program Area

- PR 60078 Taylor Facilities Build for Nodal
 - Project to finish out Taylor space required for Nodal teams
 - Forecasted Nodal needs exceed available space starting in May
 - Project evaluates leasing and Taylor Facilities build out options
 - Resolution will be presented for Board approval



7 Projects Completed 1st Quarter

➤ Projects Completed in January

- PR-50145 Austin Control Center Power and Cooling
- PR-40133 RAP-C (Remedial Action Plans for Congestion) Modeling Enhancements
- PR-50033_02 MV90 (Metering) System Installation

➤ Projects Completed in February

- PR-50136 EMMS Upgrade of OSI PI and OAG
- PR-40100 RTCA Archiving
- PR-40098 Performance Monitoring for SCADA/State Estimator
- PR-50125 Production Storage



PR-50136 EMMS Upgrade of OSI PI and OAG

➤ **Scope of EMMS Upgrade of OSI PI and OAG :**

- Six OAGs (Open Access Gateways) and the OSI-PI (Plant Information) servers required upgrades to current software versions supported by the vendor.
- Enhanced security for OAG

➤ **Features and Deliverables:**

- The objectives of the OAG upgrade was to:
 - Standardize server software with other EMMS systems.
 - OAG upgrade provides consistent UI (User Interface) displays with the EMS System.
- The OSI-PI upgrade provides:
 - Enhanced support from OSIsoft.
 - Provide enhanced usability and functionality for the OSI-PI.
 - Significant "BUG" fixes including a memory leak issue that could impact ERCOT systems.
 - Removes data trace limits to allow better data comparison.

➤ **Current Activity**

- Closing out project.

Planning 1.5 Months	Execution 5 Months
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August – September 2005

September 05 – February 2006

➤ **Scope of Real Time Contingency Analysis (RTCA) Archiving:**

The objective is to allow operations engineers to analyze transmission security analysis results and to allow ERCOT compliance engineers to track the transmission security analysis activity for NERC and ERCOT Market Participants

➤ **Features and Deliverables:**

- Tabular and graphic display available in the EMS system for flow and voltage violations for the past 12 RTCA executions within the past one hour
- Specific list of violations for the past one hour filtered by violation type, contingency, monitored element, limit rating and % overload.
- Tabular display for detailed contingency definitions associated with violations
- Availability of above data in Operational Data Storage (ODS) warehouse for long-term archival and reporting

➤ **Current Activity:**

- Lessons Learned
- Closing out project

Planning 6 Months	Execution 10 Months
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October 2004 - April 2005

April 2005 – February 2006

➤ **Scope of PR-40098 (Phase 2) :**

The scope of this project is to establish long term data storage of results from the tool that captures the performance metrics related to the quality of the State Estimator (SE) solution. Tool was delivered as Phase 1 on 9/15/05.

➤ **Features and Deliverables:**

➤ Long term storage of performance metrics to include:

- Topology changes as seen by State Estimator (SE)
- Availability of real-time telemetry to SE
- Quality of SE computed estimates
- Convergence of the SE solution
- Execution summary of the SE application

➤ **Current Activity:**

- Lessons Learned
- Closing out project

Planning 1 Month	Execution 6 Months
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August 2005 - September 2005

September 2005 – February 2006

PR-50125 Production Storage

- **Scope of SAN Port Expansion Project included :**
 - This project will deliver the Production Storage necessary to support ongoing operations and capital projects. In addition, this project will deliver a homogenous storage infrastructure (RAID 5 Striped) which will accommodate more efficient use of ERCOT storage resources.
- **Features and Deliverables:**
 - 16.5 TB of Production storage capacity
 - 16.5 TB of DR storage capacity
 - Enhanced environmental reporting capabilities
 - Improved operational efficiencies for provisioning & management
- **Current Activity**
 - Lessons Learned
 - Closing out project

Planning 4 Months	Execution 9 Months
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Feb -May 2005

May 2005 - February 2006