

# **Business Integration Update**

**Betty Day Vice President, Business Integration** 

**Board of Directors Meeting September 20, 2011** 

### **Summary**

### PMO Update:

- Overall projects are on-target for delivery and budget with active risk mitigation.
- The Data Center project completed major milestones during the past month.
- Four NPRRs and one SCR were implemented during August.

### Market Rules Update:

- 10 new revision requests were filed during the month of August (compared to 12 new in July).
- In 2011, more than 50% of new NPRRs have been submitted by ERCOT.
- Began using new CBA approach with NPRRs that is based on business case justifications.

### Enterprise Information Management Update:

- New public dashboards for System Ancillary Services Capacity Monitor and Real Time System Conditions were implemented on www.ercot.com.
- Social media population continues to grow Twitter: ~2,500 followers; Facebook:
   ~1,300 active users



### **PMO - Project Status Overview**

#### Stabilization August Release

- NPRR208, Registration and Settlement of Distributed Generation (DG) Less Than 1 MW
- NPRR221, Day-Ahead Market and Real-Time Market Default Allocation Changes
- NPRR323, Correct DAM Credit Exposure Language and Enable Qualified Expiring CRRs to Offset PTP Bid Exposure
  - Energy Only Portion (2nd of 2 pieces to this NPRR)
- NPRR350, Change to the Security Classification of the System Ancillary Service Capacity Monitor Dashboard
- SCR764, Public Access to Select MIS Dashboards
  - Real Time Systems Conditions Dashboard (1st of multiple releases for this SCR)
- Stabilization and Deferred Defects

#### Stabilization September Release

- NPRR346, Removal of Redundant Posting Requirements Related to Electrical Bus Changes
- NPRR376, CRR Volume Limitation Enhancements
- SCR764, Public Access to Select MIS Dashboards
  - Load Forecast vs. Actual Dashboard (2nd of multiple releases for this SCR)
- Stabilization and Deferred Defects

### PMO - Project Status Overview (continued)

#### ERCOT Internal Project Update

- TML transition to MIS moved to Planning/Execution
- Compliance Software Tool moved to Planning
- RARF Upgrade for Wind, Solar and Storage Resources Compatibility moved to Execution
- Zonal Decommissioning extend Execution due to resource conflict with Data Center; Execution will still complete in 2011
- Cyber Security Project 1 & 3 extend Planning to accommodate RFP process and resource availability; Planning will still complete in 2011.

#### Other Highlights

- SCR760, Changes Needed for Information Model Manager and Topology Processor for Planning moved to Execution
- NPRR310, Expand Output Schedule Acceptable Range to Include HSL & LSL moved to Execution
- NPRR316, Negative Self-Arranged Ancillary Services moved to Execution
- SCR762, Enable a Single Step Cancel/resubmit of Trades moved to Execution
- SCR763, Modify COP Validation rule for responsive Reserve Services moved to Execution



### **Project Prioritization - Summary**

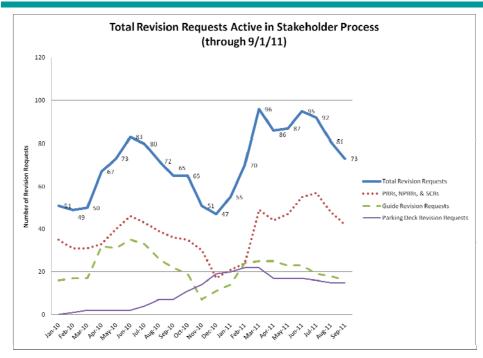
Project Category	2012 Target	2012 Projects Estimated Range	2013 Projects Estimated Range	2014 Projects Estimated Range
Regulatory	\$860k	\$600k - \$1.25M	-	-
Technical Foundation	\$6.5M	\$5.8M - \$11.75M	\$12.15M - \$22.35M	\$6.0M - \$11.0M
Business Strategy	\$7.1M	\$5.25M - \$10.95M	\$5.75M - \$10.85M	\$2.0M - \$4.0M
Efficiencies / Enhancements	\$2.05M	\$1.55M - \$3.35M	\$1.1M - \$2.45M	\$100k - \$250k
Total	\$16.5M*	\$13.2M - \$27.3M	\$19.0M - \$35.65M	\$8.1M - \$15.25M

<sup>\*</sup> ERCOT will manage within the projected \$15M project funding allocation. Higher dollars targeted for cut line since individual project budgets are not yet finalized. Goal is to ensure maximum value in delivery to the market.

Ranges will change when closer to the time period identified as more information becomes available.

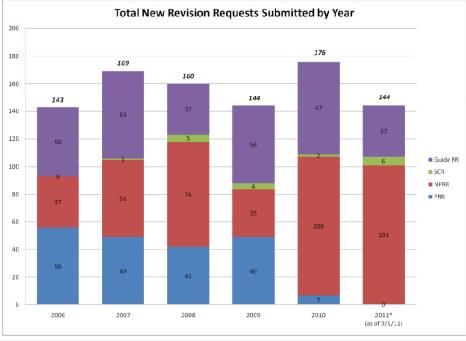


### **Market Rules Update**

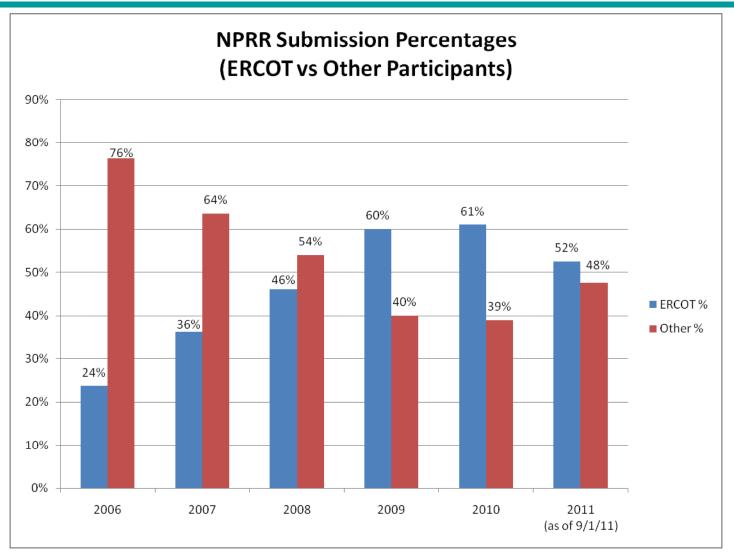


Market Rules staff has been managing an average of 82 revisions each month during 2011.

The total number of Revision Requests is expected to end higher in 2011 than in recent years. However, the total number of Revision Requests in process is beginning to trend down from the monthly peak of 95 processed in June.



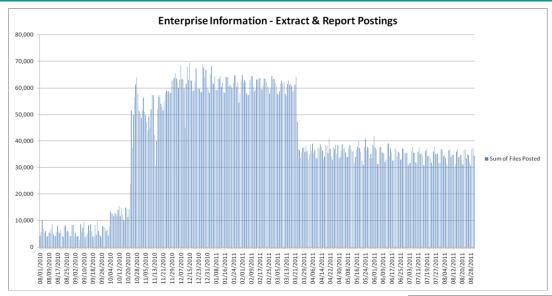
### **Market Rules Update**



<sup>\*</sup> The 2006-2007 stats are deceiving as ERCOT staff was often taking NPRRs to TPTF to get their endorsement and then TPTF would submit the NPRR. This helped to speed the process as PRS was sending all NPRRs through TPTF prior to considering the language.



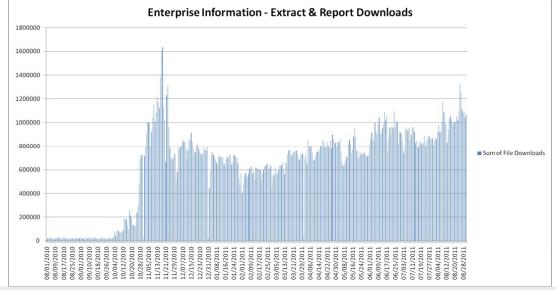
### **Enterprise Information – Extracts & Reports**



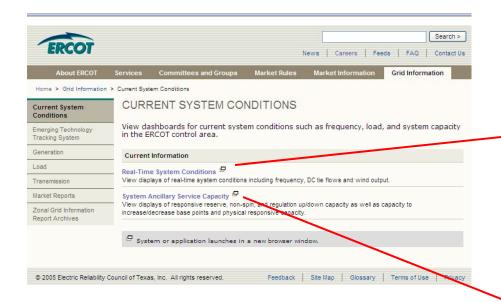
The number of extracts and reports posted remains fairly constant but the number of files downloaded is trending upward.

#### **August 2011 Statistics**

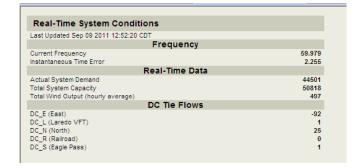
Postings	Downloads
Total = 1,061,029	Total = 31,627,360
86% - Certified	91% - Public
8% - Secure	7% - Secure
6% - Public	2% - Certified



### **Enterprise Information - New Dashboards Available**



New Dashboards available on ERCOT.com on the Grid Information page to provide current information on system conditions and ancillary services.





# **Questions?**



# **Data Center Update**

**David Forfia** 

**Board of Directors Meeting September 20, 2011** 

### **Monthly Highlights & Upcoming Program Activities**

#### Wave 1 – Corporate and Support Systems – remains in progress

Lower priority file share migrations and supporting infrastructure remain to complete.

#### Wave 1.5 – All Virtual Systems

Completed

#### Wave 2 – Development & Integrated Test systems

- Austin integrated test environments moved in August
- Performance testing progress to verify system capacity

#### Wave 3 – Bastrop Control and Data Center Commissioning

- First system moves successfully completed in August
- Final group of systems moving in September

#### • Wave 4 – Bastrop Disaster Recovery Environment

- System builds in progress
- Test scenarios in development
- Disaster recovery test scheduled completion moved out one week.

#### • Wave 5 – Taylor Production Migration

- First production system migrate in September
- Data center system moves begin in September and complete in December

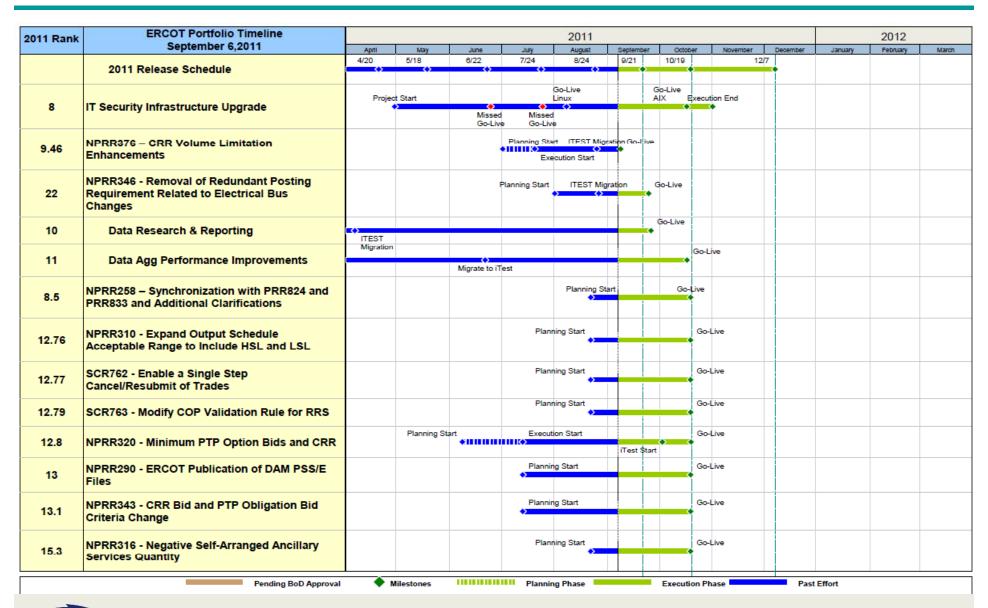


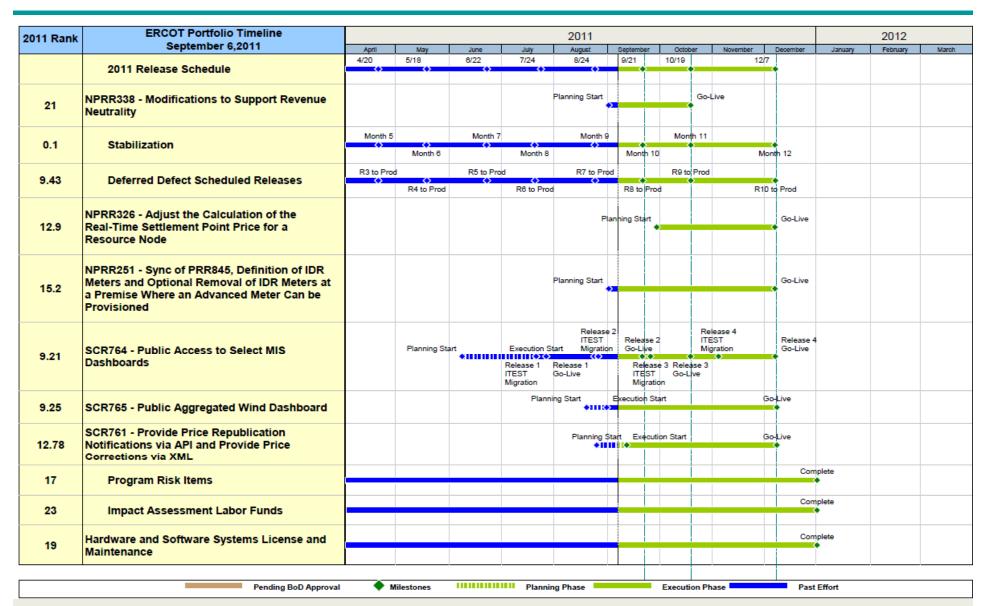
# **Critical Path & Percent Complete**

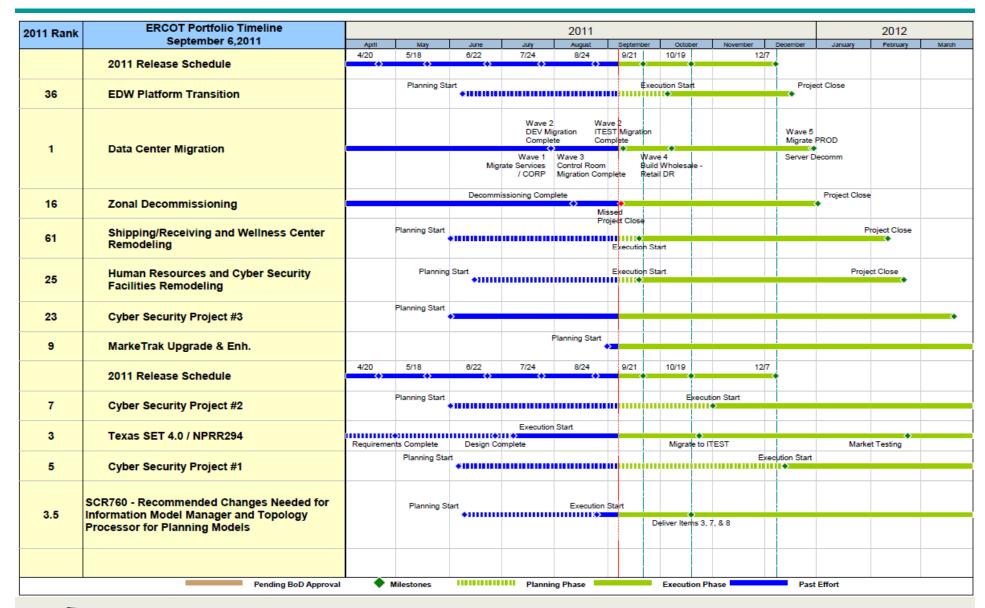
Critical Path Milestone	Planned Start	Actual Start	Planned Finish	Actual Finish	Status
Wave 0 - Wave 1 Equipment Installed	1/1/11	1/1/11	2/28/11	3/25/11	✓ Complete
Wave 1 - Supporting Systems Installed	3/1/11	3/25/11	5/16/11	4/22/11	✓ Complete
Wave 2 - Test Environments Moved	5/16/11	4/22/11	9/23/11	9/2/11	✓ Complete
Wave 3 – Bastrop Control Center	7/4/11	6/20/11	10/5/11		In progress
Wave 4 – Successful Commercial Disaster Recovery Test	7/1/11	6/6/11	<del>10/7/11</del> 10/14/11		In progress
Wave 5 – Taylor Production Migration	9/12/11	7/4/11	12/4/11 <del>1/17/12</del>		In progress

	a					
WAVES	Start	Finish	Percentage of Total Moves	Percent in Progress	Percent Complete	Percent Time Elapsed
WAVE 1 -						
Corporate and Supporting Infrastructure	3/1/2011	6/6/2011	16.5%	15.6%	84.4%	100.0%
	3/21/2011	4/27/2011	1.7%		100.0%	100.0%
WAVE 1.5 - Virtual Host Migration	3/21/2011	6/21/2011	14.0%		100.0%	100.0%
WAVE 2	4/22/11					
Development and Testing	<del>5/16/2011</del>	9/23/2011	35.8%	4.6%	78.8%	85.8%
WAVE 3						
EMMS and Austin Control Room	7/4/2011	10/5/2011	3.7%	26.5%	75.3%	65.9%
WAVE 4		<del>10/7/2011</del>				
Bastrop Disaster Recovery Environment	7/1/2011	10/14/11	4.8%	100%	0.0%	61.2%
Business Bisuster Receivery Environment	77172011	10/11/11	11.070	10070	0.070	01.270
WAVE 5	7/4/2011	12/4/201 <del>1</del>				
Production moved to TCC3	9/12/2011	<del>1/17/2012</del>	23.5%	8.6%	15.8%	20.7%
				_		
Overall	3/1/2011	1/17/2012	100.0%	12.0%	64.3%	58.54%

# **Appendix**







2011 Rank	ERCOT Portfolio Timeline	2011							2012					
	September 6,2011	April	May	June	July	August	Septem		October	November	December	January	February	Marci
		4/20	5/18	6/22	7/24	8/24	9/21	10	19	12/7	7			
	2011 Release Schedule	<b>(</b> )	<b>(</b> )	$\Diamond$	()	$\leftrightarrow$	(		•		•			
		Execution	Start											
4	Information Lifecycle Mgmt Ph2	IIIIIIII III	<b>&gt;</b>			_					<b>*</b>			
			Planning ISM	// Complete						Repli	ication Go-Liv	e		
6	Cattlement Cretery Unweds			Requirement	ts Complete		al Architec			Go-Live T	BD			
•	Settlement System Upgrade						ual Design				ment Comple	te		
					Diamin	- 61-4					Go-Live TBI			
	RARF Upgrade for Wind, Solar and Storage				Plannin							,		
	Resources													
						<u>.</u> .					ļ			
	Security and Reliability Compliance Business				Plannin						Go-Live TBI	,		
	Enterprise Tracking and Support Software													
9.45	NPRR322 - Real-Time PTP Option Modeling	111111	(1111111	1111111		(1111111	1 20000					TIMELINE TE	D	
15.4	NPRR314 - Requirement to Post Generation		ļ.,.,,,,,			1		<u> </u>				TIMELINE TBO		
15.4	Resources Temporal Constraints	1		1		1	1 22222					TIMELINE IBL	,	
	NPRR313 - Revision to the Resource Plan													
30	Reference to Current Operating Plan for EILS		]	]		1		ļ						
30	and Synchronous Condensers and Black Start					1	1 1 2333333					TIMELINE TBD	)	
	Notification Requirements													
									_					
9.47	NPRR347 - Single Daily Settlement Invoice and		]	]		1		<u> </u>	İ					
9.47	Updates to Credit Calculations	1 1 1 1 1 1 1				1	1 1200000					TIMELINE TBD	)	
	•													
00.5	NPRR357 - Revisions to Collateral		]			1						TIMELINE TBO		
20.5	Requirements Concerning CRR Auctions	1 1 1 1 1 1 1		11111111		1	200000					TIMELINE IBL	,	
	-													
	NPRR355 - Adjust the Calculation of the			]								TIME INC.		
	Real-Time Settlement Point Price for a Load	1 1 1 1 1 1 1				1	1 2//////	//////////////////////////////////////		//////////////////////////////////////		TIMELINE TBD	)	
	NIDDOGO Marella TROD Land Barra	J												
33	NPRR359 – Monthly TDSP Load Report	111111		1111111		11111111	1 1 2/////	71717171711 				TIMELINE TBD	)	
	NPRR361 - Real-Time Wind Power Production													
34	Data Transparency						1 1 2/2/22					TIMELINE TBD	)	
							<u> </u>							
	SCR766 - Load Zone and Hub LMPs													
40						11111111	1 2/////					TIMELINE TBO	)	
40	SCR766 – Load Zone and Hub LMPs Distributed by ICCP  Pending BoD Approval	<u> </u>		11111111			1 1 2000	Fx	cution P	hase	Past	TIMEL	INE TBO	INE TBD



Project Name	Scope	Objectives	Current Status	Issue	Potential Risks	Risk Probability
Stabilization	Evaluate and remediate ERCOT Nodal Operational Issues including higher than normal: production outages, issue analysis, software defect remediation, stakeholder support, and request for information volumes	Maintain Nodal Operational Stability during the first months of System Operations	On track for September release.	None	Staff attrition may impact resource availability and delivery timelines.	Medium
Deferred Defects	Evaluate and remediate the defects that were deferred from the Nodal Project	Continue to improve the operational efficiency of the Nodal Applications and reduce the impact of workarounds for both ERCOT and Market Participants	On track for September release.	None	Staff attrition may impact resource availability and delivery timelines.	Medium
Data Center Migration	Replace data center hardware that is approaching end of life and migrate hardware to new Taylor and Bastrop data centers	Reduce level of risk of hardware failure and resulting impact on critical business functions	Overall Migrations 64.3% Complete Wave 1 - Corp & Supporting infrastructure 84.4% complete Wave 3 - Bastrop Control Center Migrations are in progress at 75.3% complete. Wave 4 - Bastrop Disaster Recovery Environment build-out in progress Wave 5 - Production migration planning in progress.	None	System capacity requirements may exceed initial planning estimates. Mitigation - Performance testing in progress.	Medium
SCR760 Changes Needed for Information Model Manager and Topology Processor for Planning Models	Implement and support nine (9) system changes that update the NMMS Database and/or the tools used to create the Annual Planning Model.	Support additional features required by the Transmission Service Provider Planning teams in an effort to more efficiently and accurately build the Annual Planning Models.	SCR760-3, SCR760-7 and SCR760-8 code complete and delivered. ERCOT testing in progress. Planned for Production with October on cycle release (10/19 - 10/23).  Requirements for SCR760-2, SCR760-4, and SCR760-9 finalized. SOW complete. Development in progress.  Requirements for SCR760-5 in progress.	None	Inability of vendor to deliver quality software in a timely manner as scheduled.	Medium
Texas SET 4.0- Acquisition and Transfer of Customers From One REP to Another; Meter Tampering Transactional Solution	TX SET Version 4.0 is the next iteration of retail market transaction enhancements and modifications to enable more efficient transaction processing and business process solidification to be supported by the Texas Electric Retail Market. The TX SET Working Group has identified a number of Change Controls that are being assembled into a project for market-wide implementation.	Implement a solution as outlined in NPRR294 to facilitate the large transition of ESI IDs as a result of an acquisition pursuant to SUBST. R 25.493, Acquisition and Transfer of Customers from one Retail Electric Provider to Another.	Planning Phase - Complete. Internal TX SET 4.0 Business Requirements - Complete. Detail Design Documentation – Complete. Implementation Guides (DRAFT) - Complete. Test Plan - Complete. Execution Schedule - Complete. Development - In Progress. Test Script Writing - in Progress.	None	Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low

Project Name	Scope	<u>Objectives</u>	Current Status	<u>Issue</u>	Potential Risks	Risk Probability
Zonal Decommission	The complete decommission (hardware, software, network, data, instances) of all systems that will no longer be used after Nodal Go-Live.	Track and coordinate ERCOT assets (hardware, software) as they are being decommissioned or repurposed back into the ERCOT Asset pool.	Change request approved to extend project to December 31, 2011 to address the following:  1) A list of additional extracts which were missed in the initial analysis or reports and extracts need to be addressed 2) RemainingTru64 hardware and components 3) All remaining non-EMMS hardware and components 4) Access qand query capability for Outage Coordination to Outage Scheduling historic data.	None	Cognos user training to query historic TCR data.	Low
Information Lifecycle Mgmt Phase 2	Define and implement ERCOT's Information Lifecycle Managment (ILM) to a defined group of Commercial System databases.	Free up usable storage quickly and control future growth rates by applying ERCOT ILM standards and policies.	For Execution 1: Testing group 2 deliverables. Continuing development of Group 3 deliverables.	None.	Delivery timelines may be impacted by resource availability. Risk probability reduced as a result of restructured execution phase.	Medium
Settlement System Upgrade	Create a custom settlement solution that can be maintained by ERCOT staff. It will include the removal of the Oracle Lodestar Billing Expert application.	Replace all Lodestar proprietary code, data structures and tools with an ERCOT supported solution that does not require a maintenance agreement with an outside yendor.	Completing work on the Conceptual Design documents and working with IT for the layout of the architecture for DEV.	None	Resource availability and delivery timelines may be impacted by stabilization, impact analysis' and other higher priority projects.	Medium
Data Research & Reporting	Deliver a Electric Service Identifier (ESI ID) data research and reporting tool for ERCOT Commercial Operations to provide accurate, complete and efficient reporting and research capabilities using retail transaction data.	The delivery of timely, accurate and supportable reports, creation of a framework to build additional data marts, and the assurance that the transitioned ETS data is designed to be highly reliable and recoverable, with automated auditing and notification.	User Acceptance Testing underway. Development and Support teams supporting testing activities	None	Software defects discovered during testing may impact project timelines.	Low
Data Agg Performance Improvements	ERCOT has the capability to load and process Advance Metering Systems (AMS) settlement meter data in support or market forecasts for deployment.	To stress test data agg code in an environment with similar resources as production and make any necessary improvements to data agg code to ensure data agg's ability to support the volume of AMS ESIIDS that will come over the next 10 years (Forecasted by ERCOT to be 7.4 million AMS ESIIDs).	Performance enhancements code is in Production. Tested succesfully data loads simulating 6.5 million AMS ESIIDS. Currently testing replication impacts of simulated data loads.	None	Unable to resolve performance issues to meet expected volumes may impact delivery schedule.	Medium
SCR 764 Public Access to Select MIS Dashboards	Implement system changes to allow public access to a graphical view of nonconfidential system conditions and pricing information for the following MIS Dashboards:  Load Forecast vs. Actual  LMP Contour Map  SCED Up/Down	of different aspects of market. Restoring transparency from zonal to Nodal for market data. This does not apply			Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low



Project Name	Scope	Objectives	Current Status	Issue	Potential Risks	Risk Probability
NPRR320 Minimum PTP Option Bids and CRR Auction Fees	This NODAL Protocol Revision Request will charge a fee to make a bid and sets a minimum price of PTP Option bids. The revenue from the fees will be put in the Congestion Revenue Right (CRR)	Introduces a financial incentive for CRR account holders to submit rational bids. Reduces impacts from large bid volumes cause by speculative practices. Expected to reduce the potential for ERCOT to expand the CRR System in the future due to the system limitation of 200,000 bids per auction.	Gated to Planning. Requirements - Complete. Code - In Progress. Test Planning - In Progress		Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low
NPRR290 Publication of DAM PSS/E Files	This Nodal Protocol Revision Request (NPRR) enhances transparency of the transmission topology (including all scheduled Outages) used in the Day-Ahead Market (DAM) by requiring ERCOT to publish certain data files (in Power System Simulator for Engineering (PSS/E) format for easy review by all Market Participants with standard power flow tools such as PTI PSS/E, Power World Simulator	To provide Market Participants the transparency and ability to review the implied power flows of the DAM solution, this NPRA adds a requirement for ERCOT to post daily on the Market Information System (MIS) Public Area a package of transmission data files in PSS/E format that describe each hour's associated transmission system topology (including contingencies) and mapping of generators, Loads, transmission lines, transformers, and Hubs.	Development in progress.		Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low
NPRR343 CRR Bid and PTP Obligation Bid Criteria Change	for Congestion Revenue Rights (CRRs) in the CRR Auction or bid for Point-to- Point (PTP) Obligations in the Day-	For the DAM - Automated posting of Electrically Similar Settlement Points built from the 0600 DAM study (supporting Power System Simulator for Engineering (PSS/E) file postings in NPRR290, ERCOT Publication of DAM PSS/E Files) – the DAM solution engine would not award those ransactions inclusive of any outages received by 1000 – and automated post-DAM disclosure of the final list of Electrically Similar Settlement Points applicable to the DAM solution.  For CRR - Modify CRR application to detect and prevent Electrically Similar Settlement Point PTP Obligation bids when the CRR Auction bid portfolio is entered by the Market Participant.	September 14, 2011. Requirements - Complete. Estimates received from vendors. Will bundle release to production with NPRR290.	cycle for MMs and CRR based on priorities of business and	Joint development effort between ERCOT and (2) vendors could results in elongated break/fix cycles should issues arise during the testing cycle.	Medium
NPRR346 Removal of Redundant Posting Requirement Related to Electrical Bus Changes	This Nodal Protocol Revision Request (NPRR) removes a redundant requirement for ERCOT to produce a report regarding Electrical Bus changes. The reporting requirement in paragraph (2) of Section 3.5.1 is a redundant posting of similar information required by Section 3.5.3.1, Posting of Hub Buses and Electrical Buses included in Hubs.	To remove the redundant link, giving better visibility into the Market.	Gated to Execution. Currently being tested in iTest.	None	None	None



Project Name	Scope	<u>Objectives</u>	Current Status	<u>Issue</u>	Potential Risks	Risk Probability
MMS Submissions Rel. 1.1 Phase I - SCR762 Phase II - NPRR310/316 and SCR763	NPRR310 - Expand Output Schedule Acceptable Range to Include HSL & LSL NPRR316 - Negative Self-Arranged Ancillary Services SCR762 - Enable a Single Step Cancel/resubmit of Trades SCR763 - Modify COP Validation rule for responsive Reserve Services	(HSL) and Low Sustained Limit (LSL).	Development in progress for Phase I.	None	Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low

### **Project Prioritization - 2012 Funding Summary**

Project Category	Target Funding	Projects Started in Previous Years	New 2012 Projects
Regulatory	\$ 860,000	2	1
Business Strategy	\$ 7,100,000	5	15
Efficiencies & Enhancements	\$ 2,050,000	2	9
Technical Foundation	\$ 6,500,000	4	7
Total	\$ 16,510,000	13	32

ERCOT will manage within the projected \$15M project funding allocation.

As active projects move through the project lifecycle and new projects are considered for initiation, they will be reassessed for criticality, cost/benefit and resource availability against other projects in the portfolio.

Inclusion on the preliminary 2012 PPL does not guarantee funding!



# **2012 Project Prioritization - Regulatory**

Project Category	2012 Rank	Project	2012 Budget	2013 Budget	2014 Budget	Source
Regulatory		CFTC Compliance	100k-250k	-	-	ERCOT
Regulatory	2 *	Compliance Software Tool	500k-1M	-	-	ERCOT

2012 Funding \$860,000

<sup>\*</sup> Projected carryover project from 2011



# 2012 Project Prioritization – Business Strategy (page 1 of 2)

Project Category	2012 Rank	Project	2012 Budget	2013 Budget	2014 Budget	Source
Business Strategy	1 *	TX SET 4.0	\$250k-\$500k	-	-	Market
Business Strategy	2 *	SCR760 - Changes for IMM and Topology Pr	\$1M-\$2M	\$100k-\$250k	-	Market
Business Strategy	3 *	Cyber Security Project #1	\$50k-\$100k	-	-	ERCOT
Business Strategy	4 *	Cyber Security Project #2	<\$50k	-	-	ERCOT
Business Strategy	5	TSAT Wind Model	\$100k-\$250k	-	-	ERCOT
Business Strategy	6	PRR830/NPRR269 - Reactive Power Capabi	\$250k-\$500k	-	-	ERCOT
Business Strategy	7	Demand Response (Look Ahead SCED)	\$500k-\$1M	\$3M-\$5M	-	ERCOT
Business Strategy	8	Facilities Project	\$1M-\$2M	-	-	ERCOT
Business Strategy	9	Cyber Security Project #3	\$500k-\$1M	-	-	ERCOT
Business Strategy	10	Cyber Security Project #4	\$500k-\$1M	-	-	ERCOT
Business Strategy	11	NPRR347 - Single Daily Invoice	\$50k-\$100k	-	-	ERCOT
Business Strategy	12	NPRR260 - MIS Secure Access	\$100k-\$250k	-	-	Market
Business Strategy	+7 13 <b>*</b>	MarkeTrak Upgrade/Enhancements SCR756	\$500k-\$1M	-	-	Market
Business Strategy	14	TML Transition to MIS	\$100k-\$250k	-	-	ERCOT
Business Strategy	+1 15	Planning Site Transition to MIS	\$100k-\$250k	-	-	ERCOT
Business Strategy	+1 16	NPRR222 - Half Hour Start Clawback	<\$50k	-	-	Market
Business Strategy	17	Cyber Security Project #5	\$100k-\$250k	-	-	ERCOT



# 2012 Project Prioritization - Business Strategy (page 2 of 2)

Project Category	2012 Rank	Project	2012 Budget	2013 Budget	2014 Budget	Source
Business Strategy	18	NPRR326 - Adjust Real-Time SPP Calc.	<\$50k	-	-	ERCOT
Business Strategy	19	NPRR272 - Quick Start Resources	\$100k-\$250k	-	-	ERCOT
Business Strategy	20	NPRR207 - Unit Deselection	\$50k-\$100k	-	-	Market
Business Strategy	21	Cert. Data Product Subscription Stand.	-	\$100k-\$250k	-	ERCOT
Business Strategy	22	EPS Metering DB Redesign	-	\$250k-\$500k	-	ERCOT
Business Strategy	23	NPRR181: FIP Definition Revision	-	\$100k-\$250k	-	Market
Business Strategy	24	NPRR210: Wind Forecasting Change to P50	-	<\$50k	-	Market
Business Strategy	25	NPRR241: AIL Calc & Credit Reports Publish	-	\$100k-\$250k	-	Market
Business Strategy	26	NPRR256: Sync with PRR787, Add Non-Con	-	\$100k-\$250k	-	Market
Business Strategy	27	NPRR240 - Proxy Energy Offer Curve	-	<\$50k	-	Market
Business Strategy	28	Incremental Update Capability - Phase 2	-	\$1M-\$2M	\$1M-\$2M	ERCOT
Business Strategy	29	MP Online Data Entry - Ph 2	-	\$1M-\$2M	-	ERCOT
Business Strategy	30	MP Online Data Entry - Ph 3	-	-	\$1M-\$2M	ERCOT
Business Strategy	31	NPRR257: Sync with NOG Section 9	-	-	-	ERCOT
Business Strategy	32	SCR755: ERCOT.com Website Enhancemen	-	-	-	Market
Business Strategy	33	NOGRR034: Rescind Telemetry Perf Calc Ex	-	_	-	Market

2012 Funding

\$7,100,000



# 2012 Project Prioritization - Efficiencies and Enhancements

Project Category	2012 Rank	Project	2012 Budget	2013 Budget	2014 Budget	Source
Efficiencies/Enhancements	1 *	Incremental Update Capability - Phase 1	\$100k-\$250k	-	-	ERCOT
Efficiencies/Enhancements	2	MP Online Data Entry - Ph 1	\$500k-\$1M	-	-	ERCOT
Efficiencies/Enhancements	3 *	CMS and MIR replacement	\$250k-\$500k	\$500k-\$1M		ERCOT
Efficiencies/Enhancements	4	ERCOT Website Enhancements - 2012	\$250k-\$500k	-	-	ERCOT
Efficiencies/Enhancements	5	Macomber Map NERC SA/Compliance Enha	\$250k-\$500k	-	-	ERCOT
Efficiencies/Enhancements	6	IGRID Implementation	<\$50k	-	-	ERCOT
Efficiencies/Enhancements	7	Contingency Functionality Enhmts.	<\$50k	-	-	ERCOT
Efficiencies/Enhancements	8	SMTNET Improvements	\$50k-\$100k	-	-	ERCOT
Efficiencies/Enhancements	9	MP Communications Tool	\$50k-\$100k	-	-	ERCOT
Efficiencies/Enhancements	10	Smartphone Interface ("MyGrid")	\$100k-\$250k	-	-	ERCOT
Efficiencies/Enhancements	11	OA Grid Health Operator View	<\$50k	-	-	ERCOT
Efficiencies/Enhancements	12	Secure File Transfer	-	\$50k-\$100k	-	ERCOT
Efficiencies/Enhancements	13	EMIL and View by Protocol Enh.	-	\$100k-\$250k	-	ERCOT
Efficiencies/Enhancements	14	Replace N2N System	-	\$50k-\$100k	-	ERCOT
Efficiencies/Enhancements	15	Contract Mgmt Software	-	\$100k-\$250k	-	ERCOT
Efficiencies/Enhancements	16	Voice Analytics	-	\$100k-\$250k	-	ERCOT
Efficiencies/Enhancements	17	OTS Enhancements	-	\$100k-\$250k	-	ERCOT
Efficiencies/Enhancements	18	ERCOT Website Enhancements - 2013	-	\$100k-\$250k	-	ERCOT
Efficiencies/Enhancements	19	ERCOT Website Enhancements - 2014	-	_	\$100k-\$250k	ERCOT



2012 Funding

\$2,050,000

Projected carryover project from 2011

**ERCOT Public** 27

# 2012 Project Prioritization - Technical Foundation

Project Category	2012 Rank	Project	2012 Budget	2013 Budget	2014 Budget	Source
Technical Foundation	1	Data Center Migration	100k-250k	-	-	ERCOT
Technical Foundation	2	Minor Cap - Critical - 2012	√500k-1M		_	ERCOT
Technical Foundation	3	ILM	500k-1M		_	ERCOT
Technical Foundation	4	Settlement Upgrade	1M-2M	1M-2M	_	ERCOT
Technical Foundation	5	Oracle 11g Upgrade	*1M-2M	-	_	ERCOT
Technical Foundation	6	EMS Upgrade	1M-2M	3M-5M	3M-5M	ERCOT
Technical Foundation	7	Enterprise DW Platform Transition	500k-1M	3M-5M	_	ERCOT
Technical Foundation	8	UC4 (AppWorx) Automation Upgrade v8	<b>*</b> 100k-250k	_	_	ERCOT
Technical Foundation	9	Siebel Upgrade 8.x	500k-1M	_	_	ERCOT
Technical Foundation	10	NMMS Upgrade	100k-250k	_	-	ERCOT
Technical Foundation	11	DC Growth & Asset Replacement - 2012	500k-1M	500k-1M	-	ERCOT
Technical Foundation	12	CRR Upgrade to v12.3	_	100k-250k	-	ERCOT
Technical Foundation	13	Cognos 10.x Upgrade	_	500k-1M	_	ERCOT
Technical Foundation	14	Capacity growth - storage/comp.	_	250K-500K	_	ERCOT
Technical Foundation	15	UC4 Automation Upgrade v9	_	250K-500K	-	ERCOT
Technical Foundation	16	Upgrade Siteminder	_	50K-100K	-	ERCOT
Technical Foundation	17	Replace Sun DSEE	_	500k-1M	500k-1M	ERCOT
Technical Foundation	18	Replace Sun IDM	_	500k-1M	500k-1M	ERCOT
Technical Foundation	19	REC Enhancements	-	500k-1M		ERCOT
Technical Foundation	20	Minor Cap - Critical - 2013	-	1M-2M	-	ERCOT
Technical Foundation	21	Minor Cap - Critical - 2014	-	-	1M	ERCOT
Technical Foundation	22	Minor Cap - Critical - 2015				ERCOT
Technical Foundation	23	DC Growth & Asset Replacement - 2013	-	1M-2M	-	ERCOT
Technical Foundation	24	DC Growth & Asset Replacement - 2014	_	-	3M-5M	ERCOT
Technical Foundation	25	DC Growth & Asset Replacement - 2015				ERCOT
Technical Foundation	n/a	Minor Cap - Critical - 2010	_	-	-	ERCOT
Technical Foundation	n/a	Minor Cap - Critical - 2011	_	-	-	ERCOT
Technical Foundation	n/a	Annual Storage Growth	-	_	-	ERCOT
Technical Foundation	n/a	AMS Performance	-	_	_	ERCOT
Technical Foundation	n/a	Likewise Upgrade	-	_	-	ERCOT
Technical Foundation	n/a	Fire Alarm Upgrade	-	-	-	ERCOT



2012 Funding

\$6,500,000

# Summary of Defects by Target Delivery (Stabilization & Deferred) (as of 9/7/2011)

### **Summary of Defects by Target Delivery**

	Open Stabilization		Deferre	ed Defects	Priority 3	Priority 4 & 5 Defects (Potential Future Work)			
System	Priority 2 Target September 2011	Group 7 9/2011	Group 8 10/2011		Unassigned	Total	Deferred Defects	Stabilization	Total Defects
MMS	19		14	2	2	18	15	51	103
EMS	15	4	9	2	74	89	221	67	392
COMS	7	5	7		3	15	13	22	57
СММ	3	3				3	2		8
NMMS			10			10	28	6	44
os		2	3			5	5	4	14
CRR	2					0	3	13	18
MIS						0	3	12	15
CDR			1			1		2	3
EIS(EDW)						0	2	1	3
EIP			2			2	5	8	15
MPIM						0		1	1
Planning Model					2	2	1	4	7
Total	46	14	46	4	81	145	298	191	680

# Summary Stabilization & Deferred Defect Changes (as of 9/7/2011)

	Dec 03	Jan 08	Feb 04	Mar 01	Apr 01	May 06	Jun 09	Jul 08	Aug 05
	to	to	to	to	to	to	to	to	to
	Jan 07	Feb 03	Feb 28	Mar 31	May 06	Jun 08	Jul 07	Aug 04	Sept 07
Stabilization defects (ch	anges si	nce last r	eport)						
New Priority 1, 2 Defects	111	56	86	26	46	40	20	10	14
New Deferred Defects	92	95	38	105	97	84	37	59	53
Defects Resolved	90	51	60	133	82	109	67	59	41
Deferred defects (changes since last report)									
Defects Resolved	83	41	9	45	47	31	17	6	11
			3		•			2	

# Forecast for September Release (as of 9/7/2011)

Breakout of September Release								
Project	Internal	Market Facing	Total					
Stabilization defects	45	1	46					
Deferred defects	14		14					
Total	59	1	60					

