Business Integration Update

Betty Day

Vice President, Business Integration

Board of Directors Meeting

July 19, 2011

Summary

- **Organizational Changes –** Moved additional departments into business organization to focus on strategic delivery and enterprise-wide integration and support.

- **PMO Update –** On target with nodal stabilization spend and scheduled project releases.

- **Market Rules Update –** Trends show that around 70 revision requests are in-flight at any given time. Began providing reports to Board after PRS and TAC to improve transparency to the process.

- **Enterprise Information Management Update –** Website traffic has increased dramatically since go-live. Enhancement to ERCOT.com to reflect conservation messaging is scheduled for August 1 implementation.

How Does Business Integration Fit in ERCOT?
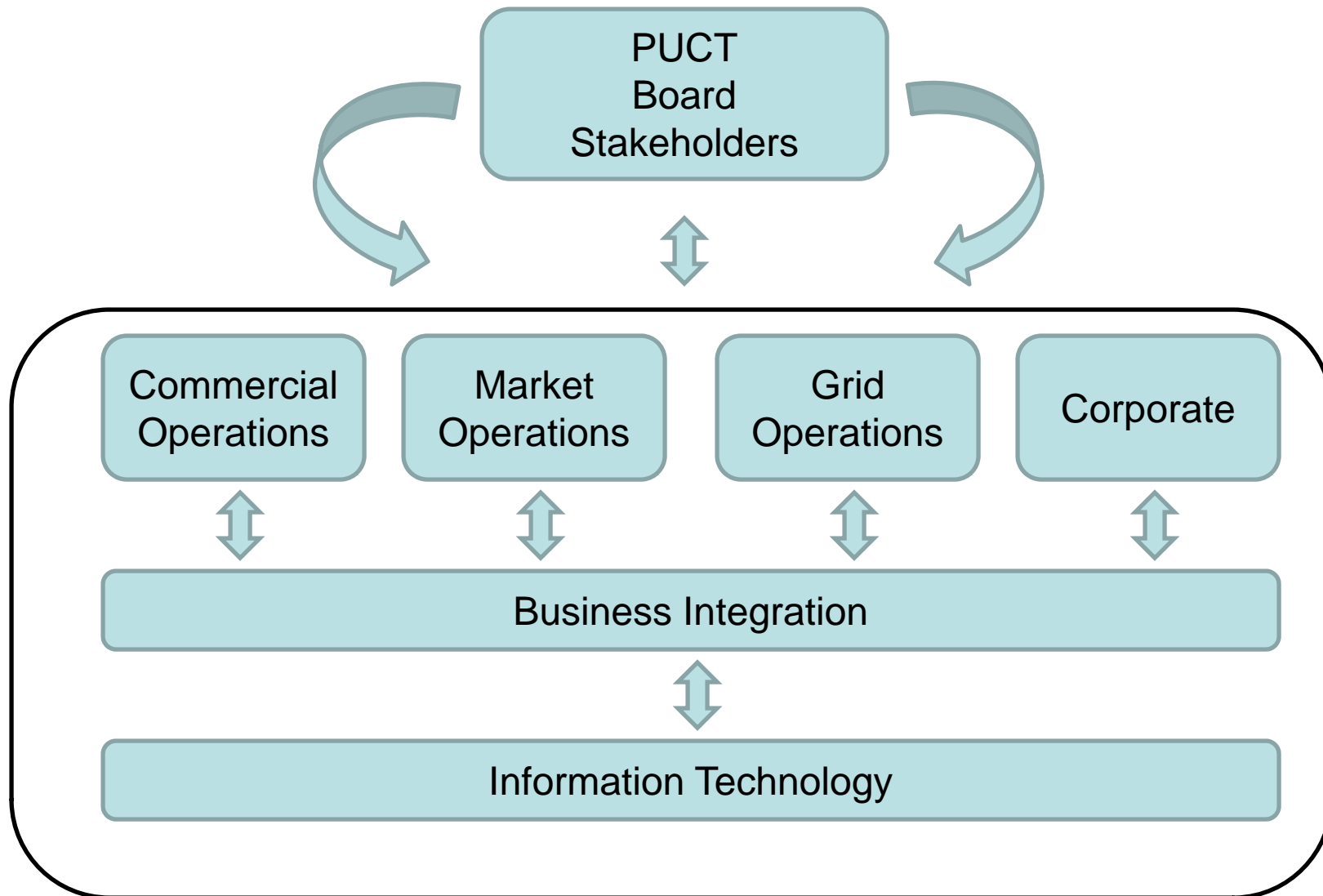
Business Integration - Scope of Responsibilities

- **Project Management Organization**

  – Project Management

  – Portfolio Management

  – Test Coordination

- **Market Rules**

  – Manage all revisions to Protocols and Operating Guides, as well as System Change Requests

- **Enterprise Information Management**

  – Market Information Services (MIS, TML, ERCOT.com, UIs)

  – Market Data Transparency

  – Integration data integrity across all ERCOT systems

  – Data Archiving/Retention

- **Business Process Management**

PMO - Project Status Overview

- **Stabilization June Release**
  - NPRRR339-Modifications to Heuristic Rules to Determine LMP at de-energized electrical bus and treatment of CRR Offers at de-energized settlement points
    - Day Ahead and Real-Time
  - NPRR341-Remove Ancillary Service Offers from SASM that do not meet the lead time
  - Stabilization and Deferred Defects

- **Stabilization July Release**
  - NPRRR339-Modifications to Heuristic Rules to Determine LMP at de-energized electrical bus and treatment of CRR Offers at de-energized settlement points
    - CRR portion
  - NPRR323-Correct DAM Credit Exposure Language and Enable Qualified Expiring CRRS to Offset PTP Bid Exposure
    - PTP portion in the July release
    - Energy Only Bid in the August release
  - NPRR282-Dynamic Ramp Rates Use in SCED
  - Stabilization and Deferred Defects

PMO - Project Status Overview (continued)

- **ERCOT Internal Project Update**
  - Human Resources/Cyber Security Facilities Remodeling
    - Estimated planning cost less than $20K (New 2011 PPL item)
  - Shipping/Receiving and Wellness Center Remodeling
    - Estimated planning cost less than $15K (New 2011 PPL item)
  - Cyber Security Project #3 move to Planning
    - Estimated planning cost less than $50K (New 2011 PPL item)

- **Other Highlights**
  - TX SET 4.0 move to Execution
    - Estimated execution/closing cost of $1.5 million and estimated total project cost of $1.7 million (Existing PPL item)
  - No projects above the PPL cutline were moved below the cutline due to the addition of the above projects

PMO - Project Priority List Revision

- **Goal is to have a more robust process for on-going management of project work and market requested changes**

- **Will not be managed by calendar year but rather as on-going prioritized list of work**

- **PPL Categories** (see appendix for more detail)
  - Regulatory
    - Required by Legislature, PUCT, NERC, FERC or legal ruling
  - Business Strategy
    - Market driven enhancements and efficiencies
    - ERCOT strategic initiatives
  - Efficiencies & Enhancements
    - Internally driven operational improvements
    - Enhanced customer service
  - Technical Foundation
    - Required maintenance and upgrades
    - Technical evolution and performance
    - Systemic growth

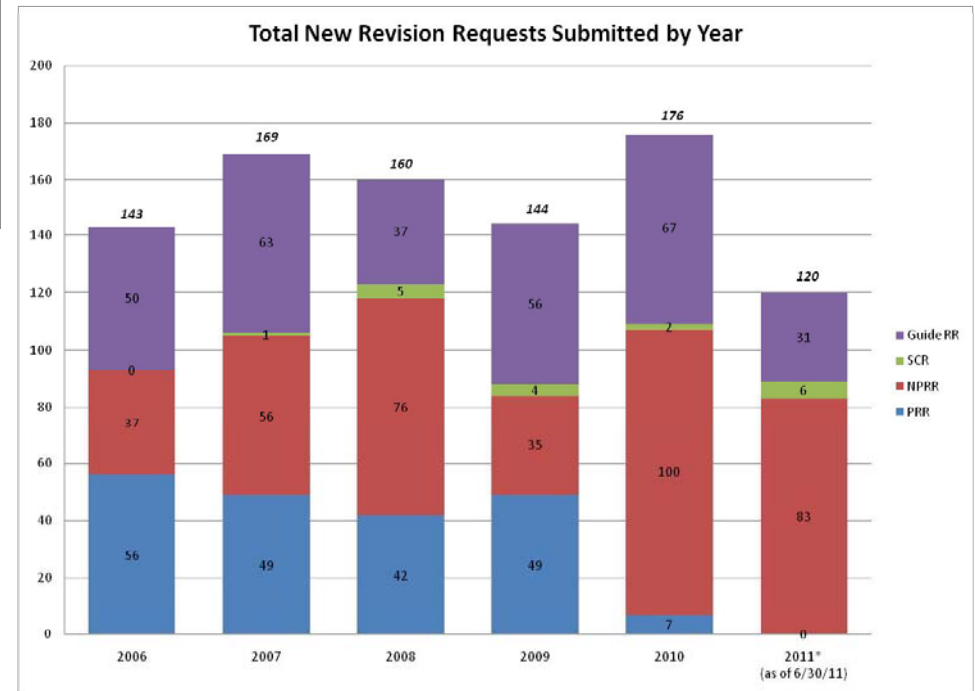# Market Rules Update
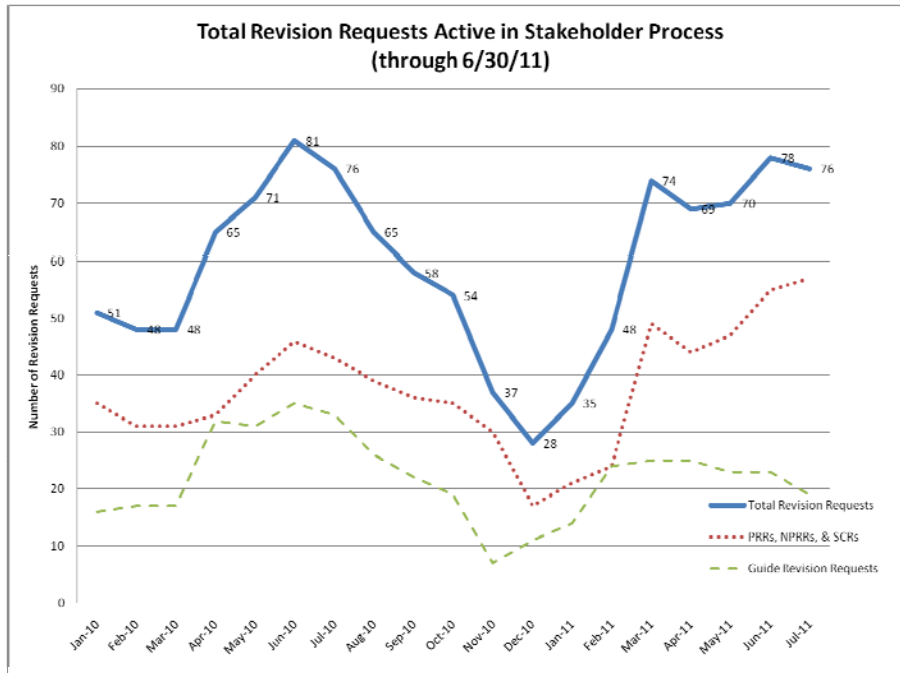
Since the beginning of 2011, Market Rules staff is managing around 70 changes at any given time.
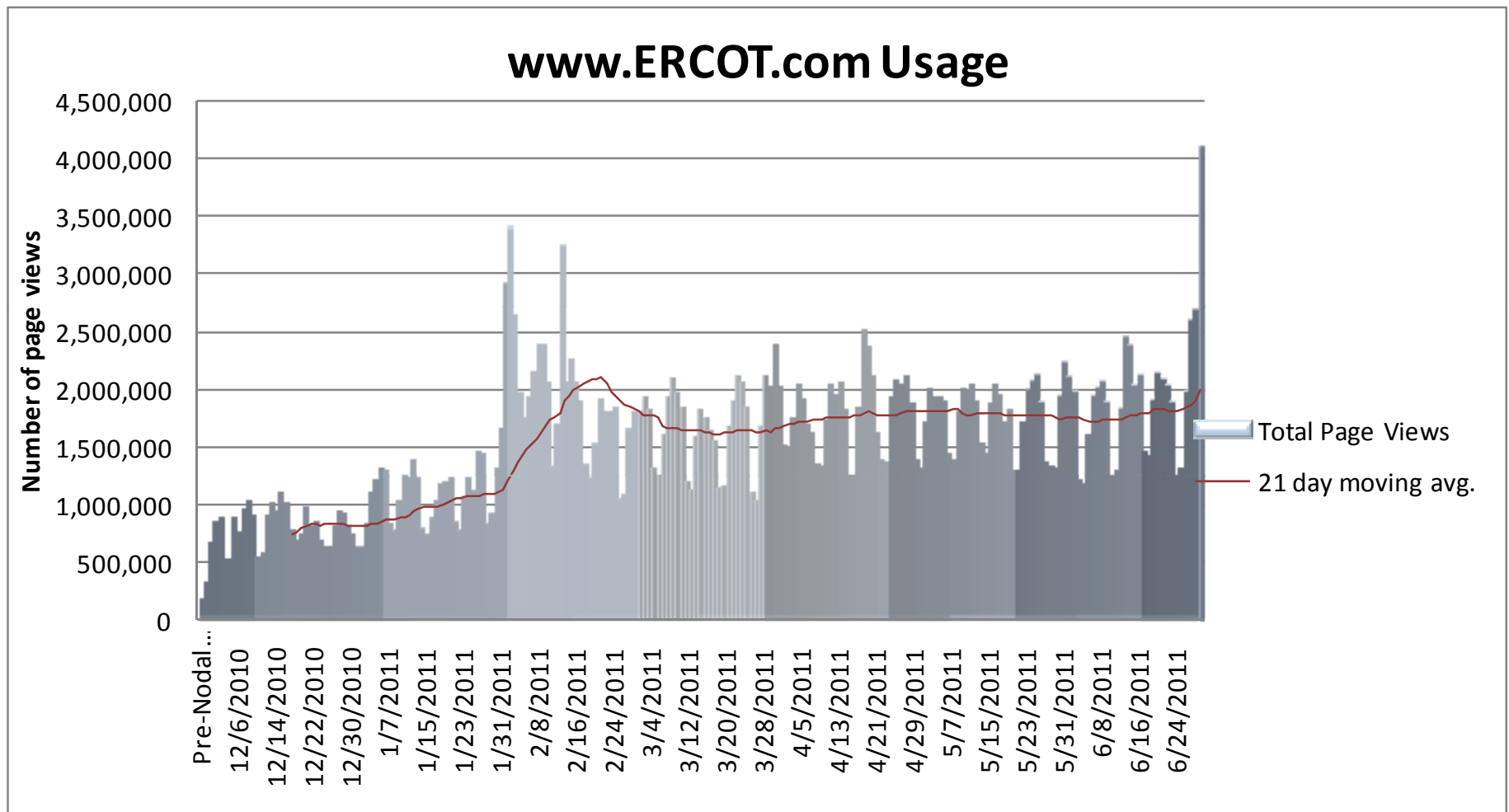
Market Rules will be providing updates to the Board after PRS and TAC to provide more transparency to the revision process.

The number of Revision Requests in 2011 is trending higher than recent years.

Enterprise Information - Website Traffic

www.ERCOT.com Usage

Enterprise Information – Extracts & Reports

Extract & Report Postings
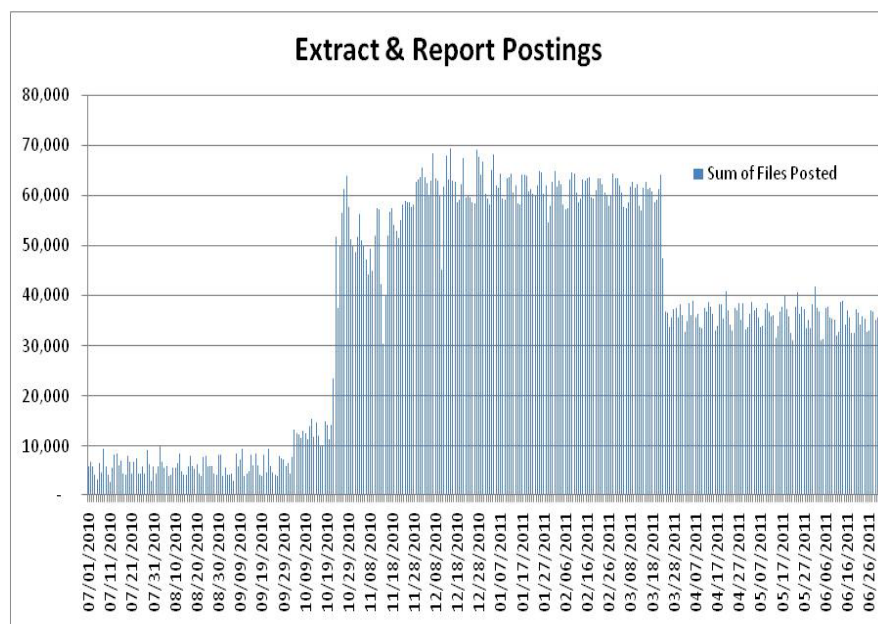
There have been dramatic increases in the number of extracts and reports posted and downloaded since nodal go-live.

June 2011 Statistics

Postings	Downloads
Total = 1,065,152	Total = 28,222,036
90% - Certified	90% - Public
6% - Secure	7% - Secure
4% - Public	3% - Certified

Extract & Report Downloads
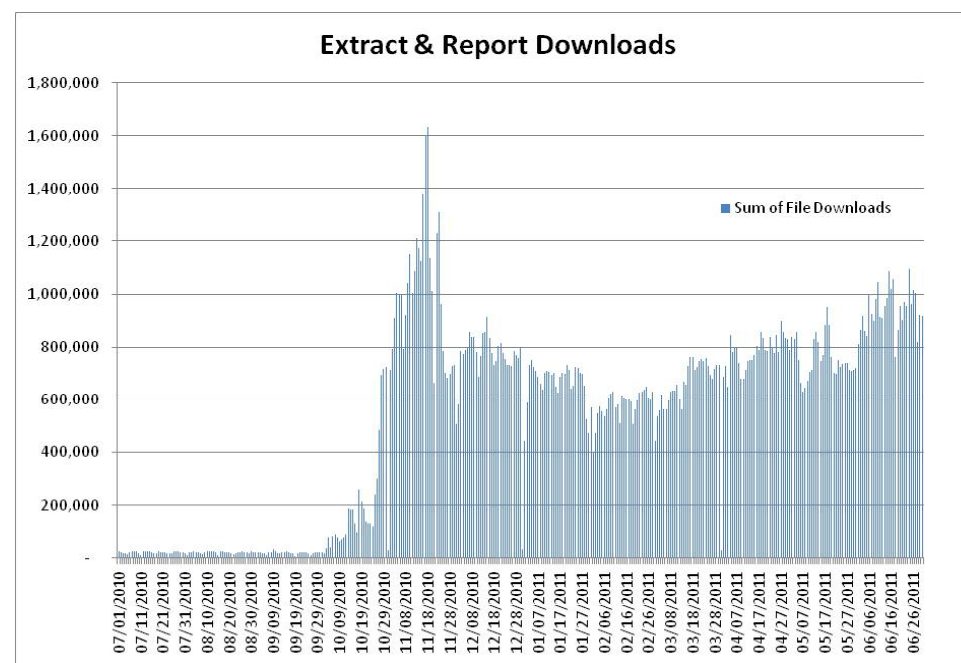
Questions?

Data Center Update

David Forfia

Board of Directors Meeting
July 19, 2011

Data Center Monthly Highlights & Upcoming Program Activities

- **Wave 1 – Corporate and Support Systems – remains in progress**
  - System monitoring , IT automation and corporate email will complete in July

- **Wave 1.5 – All Virtual Systems**
  - Will complete in July

- **Wave 2 – Development & Integrated Test systems**
  - Taylor integrated test environments move in July
  - Load testing begins in August.
  - Austin integrated test environments move in August

- **Wave 3 – Bastrop Control and Data Center Commissioning**
  - Control room commissioning began in June completes in July
  - Data center system moves begin in August and complete in September.

- **Wave 4 – Bastrop Disaster Recovery Environment**
  - Systems builds in progress
  - Test scenarios in development
  - Disaster recovery test scheduled to complete in October

- **Wave 5 – Taylor Production Migration**
  - Migration of data storage moves start in July
  - Data center system moves begin in September and complete in December
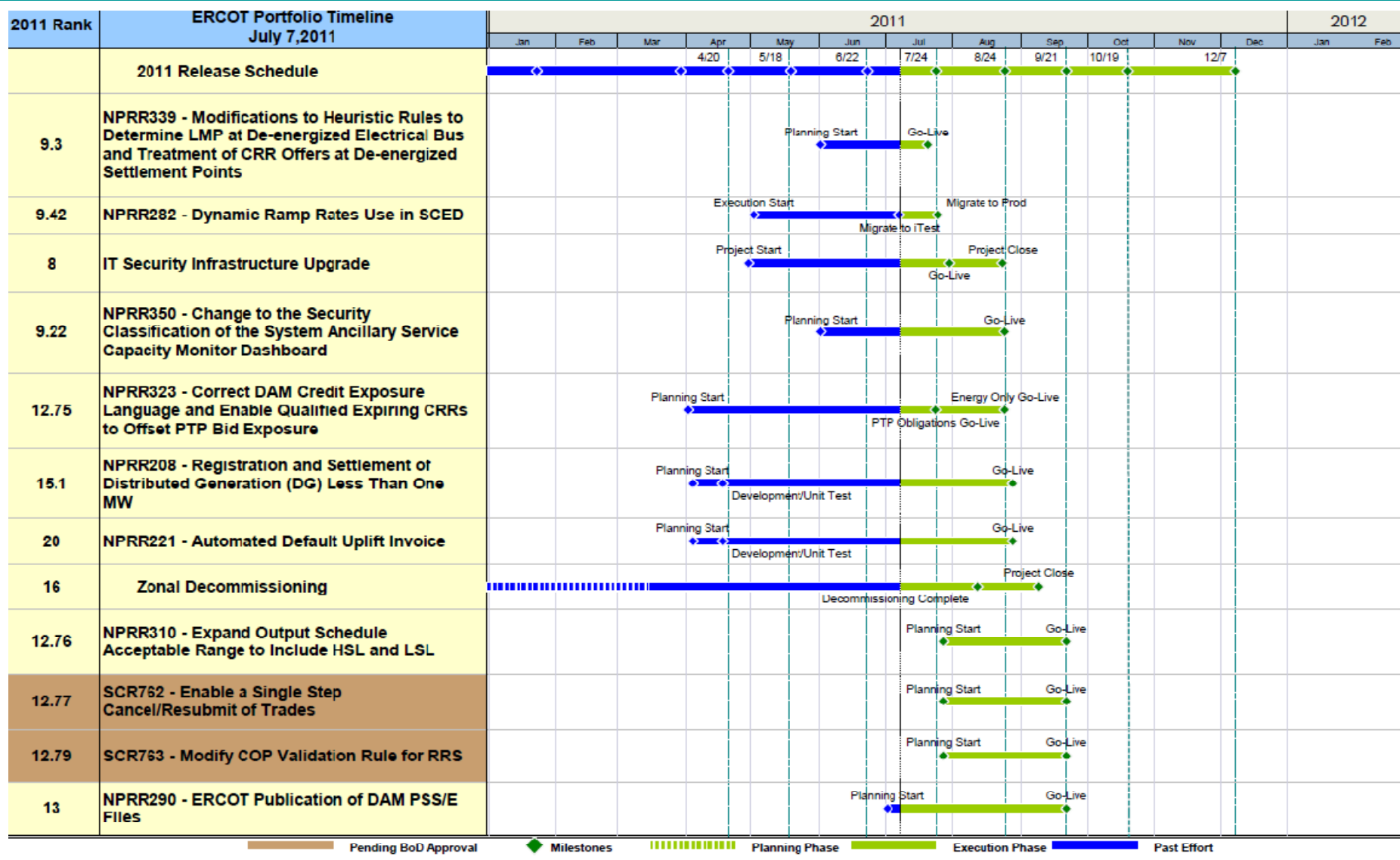
Data Center Critical Path & Percent Complete

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		In progress
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	10/7/11		In progress
Wave 5 – Taylor Production Migration	9/12/11	7/4/11	12/4/11 ~~1/17/12~~		In progress

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	19.0%	38.2%	61.8%	100.0%
WAVE 1.5 - Virtual Host Migration	3/21/2011 3/21/2011	4/27/2011 6/21/2011	1.7% 13.7%	 12.9%	100.0% 87.1%	100.0% 100.0%
WAVE 2 Development and Testing	4/22/11 ~~5/16/2011~~	9/23/2011	35.5%	7.3%	47.1%	41.7%
WAVE 3 EMMS and Austin Control Room	7/4/2011	10/5/2011	3.1%	0%	0.0%	4.4%
WAVE 4 Bastrop Disaster Recovery Environment	7/1/2011	10/7/2011	4.1%	100%	0.0%	7.3%
WAVE 5 Production moved to TCC3	7/4/2011 ~~9/12/2011~~	12/4/201~~1~~ ~~1/17/2012~~	22.9%	1.4%	0.0%	2.7%
Overall	3/1/2011	1/17/2012	100.0%	16.6%	41.9%	40.8%

Appendix

ERCOT Portfolio Status Report (as of 7/7/2011)

ERCOT Portfolio Status Report (as of 7/7/2011)

ERCOT Portfolio Status Report (as of 7/7/2011)

2011 Rank	ERCOT Portfolio Timeline July 1, 2011
	2011 Release Schedule
1	Data Center Migration
23	Cyber Security Project #3
61	Shipping/Receiving and Wellness Center Remodeling
7	Cyber Security Project #2
6	Settlement System Upgrade
9	MarkeTrak Upgrade & Enh.
3	Texas SET 4.0 / NPRR294
15	Nodal Release 2.0
3.5	SCR760 - Recommended Changes Needed for Information Model Manager and Topology Processor for Planning Models
4	Information Lifecycle Mgmt Ph2
25	Human Resources and Cyber Security Facilities Remodeling

Legend: Pending BoD Approval · Milestones · Planning Phase · Execution Phase · Past Effort

Projects Update

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 the July release.	None	Complexity of issues is greater than expected System design changes are implemented before systems are fully stabilized	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 the July release.	None	Resource availability and delivery timelines may be impacted by Stabilization efforts	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	Wave 1 in progress; Completes in July. Wave 2 started four weeks early. Wave 3 started two weeks early. Wave 4 started four weeks early.. Wave 5 started eight weeks early	None	System capacity requirements may exceed planning estimates impact program budget. Project workload level may exceed planning estimates and impact program budget and schedule.	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 development in progress. Test output from software changes for 3 and 8 verified by ERCOT. Planned for Production with October on cycle release (10/19 - 10/23). Requirements for SCR760-2, SCR760-4, SCR760-5 and SCR760-9 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.	None	Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low
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.	Execution has started with a targeted completion date of August 2011.	None	Zonal data retrieval may be requested to be retained beyond the decommisioning project end date.	Medium
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 of Group 0 and Group 1 deliverables. Developing Group 2 deliverables.	None.	Delivery timelines may be impacted by resource availability. Risk probability reduced as a result of restructured execution phase.	Medium

Projects Update

Project Name	Scope	Objectives	Current Status	Issue	Potential Risks	Risk Probability
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 vendor.	Continuing to work on the Conceptual Design documents and working with IT for the layout of the architecture.	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 of 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
NPRR 208 Registration and Settlement of Distributed Generation (DG) Less Than One MW	NPRR208 - Provides market clarity on registration requirements for Distributed Generation for the Nodal market. Established a DG registration threshold (currently at 1MW)	Eliminated Resource registration requirement for DG below the DG registration threshold Allowed all DG below the DG registration threshold to be settled as negative load	Business Requirements - Complete. Detail Design - Complete. Code - Complete. Tetsting - in Progress.	None	Resource availability and delivery timelines may be impacted by Stabilization efforts and/or other priorities.	Low
NPRR 221 Day-Ahead Market and Retail-Time Market Default Allocation Changes	NPRR221 changed the way default amounts in the Day-Ahead Market and Real-Time Market are allocated. A Default Uplift Invoice and Settlements Calculation were defined to support this change. For Nodal Go-Live this change remained a manual Business Process.	• Build Settlement tools to support the calculation of default uplift invoice input data • Define new business processes to minimize impacts when a default occurs. • Lodestar changes to support the creation of Default Uplift Invoices • Lodestar changes for Billing & Payment of short-pay amounts	Business Requirements - Complete. Detail Design - Complete. Code - in Progress.	None	Resource availability and delivery timelines may be impacted by Stabilization efforts	Low
NPRR 282 Dynamic Ramp Rate Use in SCED	Enhance ERCOT's EMS system to use the telemetered ramp rates instead of computed ramp rates from MMS	Enhance ERCOT's EMS system to use the telemetered ramp rates instead of computed ramp rates from MMS	On track for migration to iTest platform for testing on July 7 followed by migration to production on July 25. Market notice sent to QSEs.	None	ICCP points for 33% of the total generating units remains to be completed by MPs. However, defaults will be used if telemetry is unavailable.	Low

July 19, 2011

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Projects Update

Project Name	Scope	Objectives	Current Status	Issue	Potential Risks	Risk Probability
NPRR323 **Correct DAM Credit Exposure Language and Enable Qualified Expiring CRRs to Offset PTP Bid Exposure**	Enhance the MMS system to: 1. Support new credit validation rules 2. Reduce credit exposure for qualified PTP Obligation Bids 3. Allow ERCOT to make a QSE ineligible to receive CRR credit exposure offsetting	The change will potentially reduce the collateral burden for Qualified Scheduling Entities' (QSEs') bids while sufficiently collateralizing ERCOT.	PTP portion delayed (business decision) but is expected to be fully tested and migrated to production on July 25th. Energy Only Bid portion is currently being developed and is expected to be tested and released during the August MMS production migration.	None	Testing may discover defects that require a new development release which would affect the production timeline.	Low
NPRR 339 **Modifications to Hueristic Rules**	Modifications to heuristic rules to determine LMP at de-energized Electrical Bus and treatment of CRR Offers at de-energized Settlement Points	• Extend the heuristic rules to determine LMP at de-energized Electrical Busses • Change the treatment of CRR Offers when either the source or sink Settlement Point id de-energized in DAM	Day Ahead and Real-Time portions migration to production completed on June 23rd. CRR portion being tested and is expected to be migrated to production on July 25th.	None	Testing may discover defects that require a new development release which would affect the production timeline.	Low
NPRR 341 **Remove Ancillary Service Offers**	Modify input data processing of Supplemental Ancillary Services Markets (SASMs) to remove offers that do not meet the lead time for each hour in the SASM study period.	To introduce systematic changes/logic to remove offers that do not meet the lead time for each hour in the SASM study period.	Migration to production completed on June 23rd.	None	Testing may discover defects that require a new development release which would affect the production timeline.	Low
NPRR 350 **Change to the Security Classification of the System Ancillary Service Capacity Monitor Dashboard**	Change the posting category of items that make up the System Ancillary Service Capacity Monitor Dashboard from MIS Secure Area to MIS Public Area in order to allow this information to be posted to ERCOT.com.	• Better understanding of market to optimize position in market. Understand interactions of different aspects of market. • Restoring transparency from zonal to Nodal for market data. This does not apply to the LMP Contour Map or SCED Up/Down dashboards. • Public visibility into the ERCOT System conditions. • Mobile availability.	Planning started in June and Execution targeted for July, with implementation date targeted to August timeframe.	None	Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low
SCR 764 **Public Access to Select MIS Dashboards**	Implement system changes to allow public access to a graphical view of non-confidential system conditions and pricing information for the following MIS Dashboards: • Load Forecast vs. Actual • LMP Contour Map • SCED Up/Down	• Better understanding of market to optimize position in market. Understand interactions of different aspects of market. • Restoring transparency from zonal to Nodal for market data. This does not apply to the LMP Contour Map or SCED Up/Down dashboards. • Public visibility into the ERCOT System conditions. • Mobile availability.	Planning started in June and will complete in July. Implementation dates for individual dashboards across several months to be confirmed during Planning phase.	None	Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low
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) Balancing Account.	• 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 underway Implementation date to be confirmed at the end of the Planning phase.	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	$ 1,600,000	2	1
Business Strategy	$ 5,950,000	5	15
Efficiencies & Enhancements	$ 2,050,000	2	9
Technical Foundation	$ 6,500,000	4	7
Total	**$ 16,100,000**	**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 PPL does not guarantee funding!

Project Prioritization – Regulatory

Project Category	2012 Rank	Project	2012 Budget	2013 Budget	2014 Budget
Regulatory	1	REC Enhancements	$500k-$1M	-	-
Regulatory	2	CFTC Compliance *	$100k-$250k	-	-
Regulatory	3	Compliance Software Tool *	$500k-$1M	-	-

* Projected carryover project from 2011

Project Prioritization – Business Strategy (page 1 of 2)

Project Category	2012 Rank	Project	2012 Budget	2013 Budget	2014 Budget
Business Strategy	1	TXSET4.0 *	$250k-$500k	-	-
Business Strategy	2	SCR760 *	$1M-$2M	$100k-$250k	-
Business Strategy	3	Cyber Security Project #1 *	$50k-$100k	-	-
Business Strategy	4	Cyber Security Project #2, Phase 1 *	<$50k	-	-
Business Strategy	5	TSAT Wind Model	$100k-$250k	-	-
Business Strategy	6	PRR830/NPRR269 - Reactive Power Capabi	$250k-$500k	-	-
Business Strategy	7	Demand Response (Look Ahead SCED)	$500k-$1M	$3M-$5M	-
Business Strategy	8	Facilities Project	$1M-$2M	-	-
Business Strategy	9	Cyber Security Project #3	$500k-$1M	-	-
Business Strategy	10	Cyber Security Project #4	$500k-$1M	-	-
Business Strategy	11	NPRR347 - Single Daily Invoice	$50k-$100k	-	-
Business Strategy	12	NPRR260 - MIS Secure Access	$100k-$250k	-	-
Business Strategy ⬆ +7	13	MarkeTrak Upgrade/Enhancements SCR756 *	$500k-$1M		
Business Strategy	14	TML Transition to MIS	$100k-$250k		
Business Strategy ⬆ +1	15	Planning Site Transition to MIS	$100k-$250k		
Business Strategy ⬆ +1	16	NPRR222 - Half Hour Start Clawback	<$50k		
Business Strategy	17	Cyber Security Project #2, Phase 2	$100k-$250k	-	-

⬆ Ranking changes by COPS (vs. initial ERCOT proposed ranks)

See Appendix for brief project descriptions

* Projected carryover project from 2011

Project Prioritization – Business Strategy (page 2 of 2)

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

Project Prioritization – Efficiencies and Enhancements

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

* Projected carryover project from 2011

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Project Prioritization – Technical Foundation

Project Category	2012 Rank	Project	2012 Budget	2013 Budget	2014 Budget
Technical Foundation	1	Data Center Migration *	$100k-$250k	-	-
Technical Foundation	2	Minor Cap - Critical - 2012	$500k-$1M	-	-
Technical Foundation	3	Information Lifecycle Mgmt Phase 2 *	$500k-$1M	-	-
Technical Foundation	4	Settlement Upgrade *	$1M-$2M	$1M-$2M	-
Technical Foundation	5	Oracle 11g Upgrade *	$1M-$2M	-	-
Technical Foundation	6	EMS Upgrade	$1M-$2M	$3M-$5M	$1M-$2M
Technical Foundation	7	Enterprise DW Platform Transition	$500k-$1M	$3M-$5M	-
Technical Foundation	8	Job Scheduling Upgrade v8	$100k-$250k	-	-
Technical Foundation	9	Siebel Upgrade	$250k-$500k	-	-
Technical Foundation	10	NMMS Upgrade	$100k-$250k	-	-
Technical Foundation	11	DC Growth & Asset Replacement - 2012	$500k-$1M	$1M-$2M	-
Technical Foundation	12	CRR Upgrade	-	$100k-$250k	-
Technical Foundation	13	Business Intelligence Software Upgrade	-	$500k-$1M	-
Technical Foundation	14	Capacity growth - storage/comp.	-	$250k-$500k	-
Technical Foundation	15	Job Scheduling Upgrade v9	-	$250k-$500k	-
Technical Foundation	16	User Authentication Upgrade	-	$50k-$100k	-
Technical Foundation	17	Replace Sun DSEE	-	$500k-$1M	$500k-$1M
Technical Foundation	18	Replace Sun IDM	-	$500k-$1M	$500k-$1M
Technical Foundation	19	Minor Cap - Critical - 2013	-	$1M-$2M	-
Technical Foundation	20	Minor Cap - Critical - 2014	-	-	$1M-$2M
Technical Foundation	22	DC Growth & Asset Replacement - 2013	-	$1M-$2M	-
Technical Foundation	23	DC Growth & Asset Replacement - 2014	-	-	$3M-$5M

* Projected carryover project from 2011

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

| | Open Stabilization Priority 2 Target July 2011 | Deferred Defects Priority 3 | | | | | | | Priority 4 & 5 Defects (Potential Future Work) | | Total Defects |
		Group 5 7/2011	Group 6 8/2011	Group 7 9/2011	Group 8 10/2011	Group 9 12/2011	Unassigned	Total	Deferred Defects	Stabilization	
System											
MMS	8		2	18				20	15	44	**87**
EMS	10	4	5	10	9	8	111	147	170	70	**397**
COMS	5		11	3	5			19	19	22	**65**
CMM			2	1				3	2	1	**6**
NMMS					11			11	28	4	**43**
OS	4		6	1	3			10	26	2	**42**
CRR								0	3	15	**18**
MIS								0	3	12	**15**
CDR	2							0		3	**5**
EIS(EDW)								0	2		**2**
EIP	7	1			1			2	6	6	**21**
MPIM								0			**0**
Planning Model	3						2	2	1	4	**10**
Total	39	5	26	33	29	8	113	214	275	183	711

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

	Dec 03 to Jan 07	Jan 08 to Feb 03	Feb 04 to Feb 28	Mar 01 to Mar 31	Apr 01 to May 06	May 06 to Jun 08	Jun 09 to Jul 07
Stabilization defects (changes since last report)							
New Priority 1, 2 Defects	111	56	86	26	46	40	20
New Deferred Defects	92	95	38	105	97	84	37
Defects Resolved	90	51	60	133	82	109	67
Deferred defects (changes since last report)							
Defects Resolved	83	41	9	45	47	31	17

Forecast for July Release (as of 7/7/2011)

Breakout of July Release

Project	Internal	Market Facing	Total
Stabilization defects	33	6	39
Deferred defects	5		5
Total	38	6	44