Business Integration Update

Betty Day
Vice President of Business Integration

Board of Directors Meeting
August 16, 2011

Summary

- **PMO Update –** In general, projects are on-target for delivery and budget with active risk mitigation. Significant accomplishments over the past month in the Data Center Relocation project.

- **Market Rules Update –** 12 new revision requests were filed during the month of July (compared to 19 new in June). In 2011, more than 50% of new NPRRs were submitted by ERCOT.

- **Enterprise Information Management Update –** New conservation messaging was delivered to the ERCOT website on 7/29 and is triggered by grid events.

- **Market Discussions –** ERCOT continues to work with Market Participants around hot topics such as Non-Spin, CRR market changes, etc.

PMO - Project Status Overview

- **Stabilization July Release**
  - NPRR339, 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
  - NPRR282, Dynamic Ramp Rates Use in SCED
  - Stabilization and Deferred Defects

- **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

PMO - Project Status Overview (continued)

- **ERCOT Internal Project Update**
  - Compliance Software Tool – moved to Initiation
  - Cyber Security Project #2 – moved to Planning
  - RARF Upgrade for Wind, Solar and Storage Resources Compatibility – moved to Planning

- **Other Highlights**
  - NPRR290, ERCOT Publication of DAM PSS/E Files – moved to Execution
  - NPRR320, Minimum PTP Option Bid and Settlement – moved to Execution
  - NPRR343, CRR Bid Criteria and PTP Obligation Bid Criteria Change – moved to Planning
  - NPRR350, Change to the Security Classification of the System Ancillary Service Capacity Monitor Dashboard – moved to Execution
  - NPRR376, CRR Volume Limitation Enhancements – moved to Execution
  - SCR764, Public Access to Select MIS Dashboards – moved to Execution

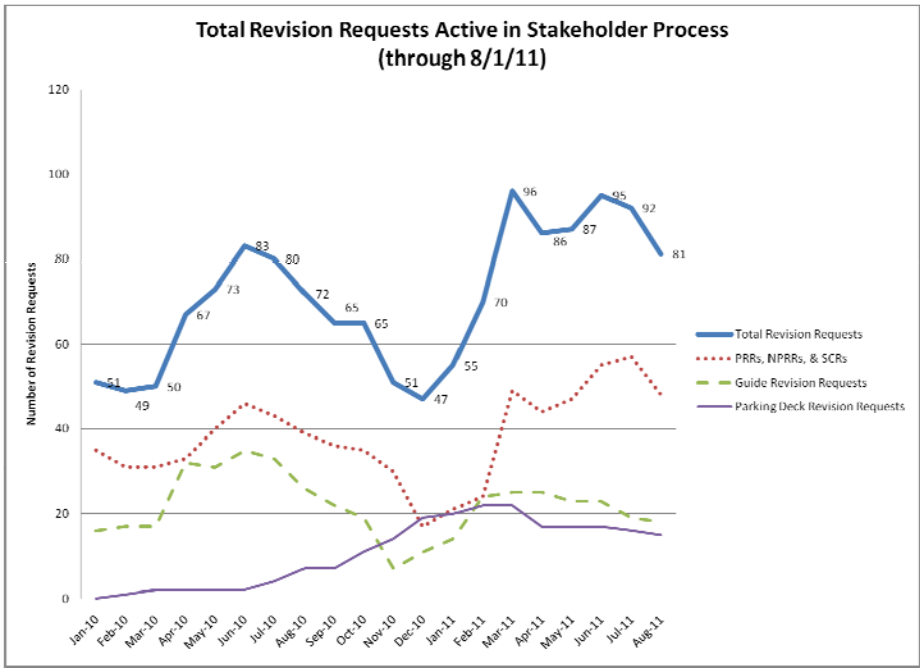
Project Prioritization – Summary

Project Category	2012 Target	2012 Projects Estimated Range	2013 Projects Estimated Range	2014 Projects Estimated Range
Regulatory	$1.6M	$1.1M - $2.25M	-	-
Technical Foundation	$6.5M	$5.8M - $11.75M	$12.15M - $22.35M	$6.0M - $11.0M
Business Strategy	$5.95M	$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	$16.1M*	$13.7M - $28.3M	$19.0M - $35.65M	$8.1M - $15.25M

* 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.

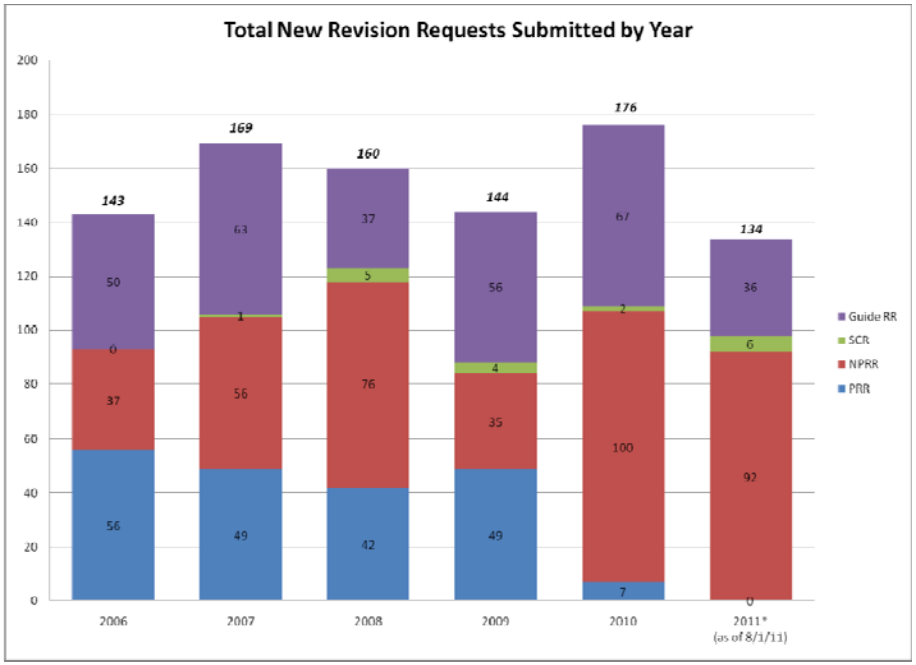
Market Rules Update



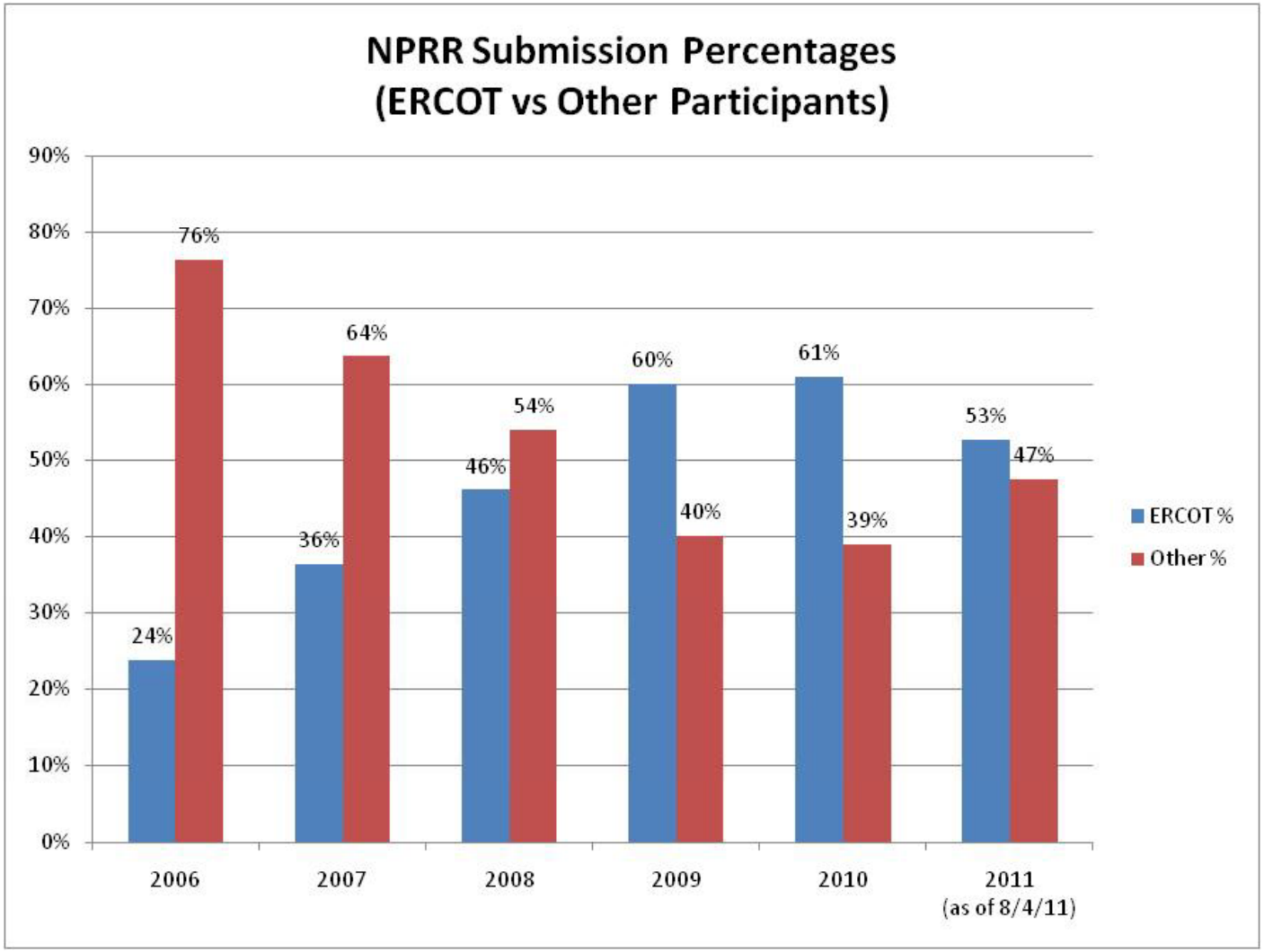
Over the past 6 months, Market Rules staff has been managing an average of 90 revisions each month.

Thus far in 2011, more than 50% of the NPRRs submitted are initiated by ERCOT.

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



Market Rules Update



* 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.

Market Rules Update

- NPRR327, State Estimator Data Redaction Methodology

  Written to support PUCT Substantive Rule 25.505, Resource Adequacy in the ERCOT Power Region, this NPRR defines a redaction methodology for posting State Estimator data. ERCOT is currently completing an Impact Analysis (IA) which is scheduled to be reviewed at the August PRS.

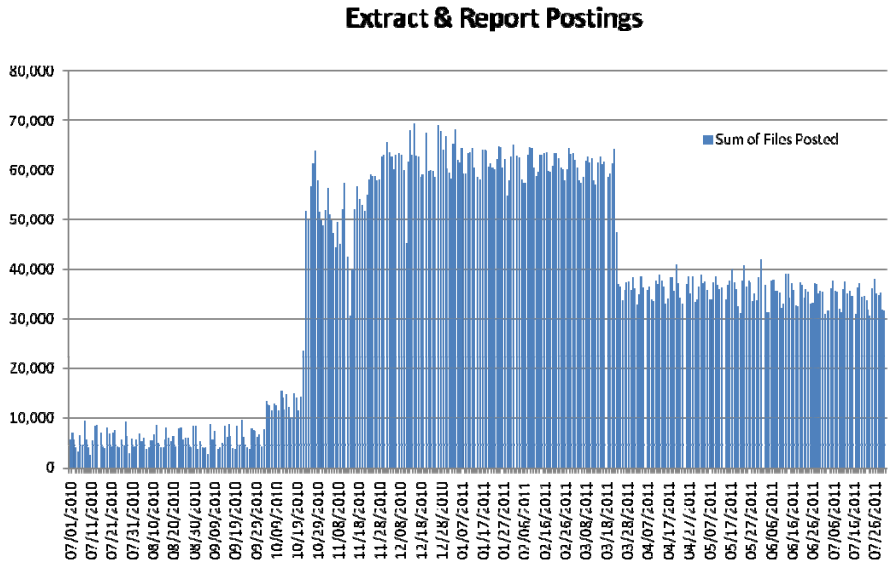
- NPRR351, Calculate and Post Projected Non-Binding LMPs for the Next 15 Minutes
  NPRR378, Posting of the ERCOT Short-Term Load Forecast and the Aggregated HDL and LDL Used in SCED
  - TAC granted the Steel Mill appeal of the PRS rejection of NPRRs 351 and 378; directed PRS to work with ERCOT to resolve any questions needed to complete the impact analysis of the NPRRs; requested ERCOT to perform an IA; and directed PRS to recommend action on the NPRRs to TAC after the completion of the IA.
  - NPRR351 proposes ERCOT perform and post non-binding projections of LMPs on a 15-minute rolling look ahead.
  - NPRR378 adds a requirement for ERCOT to post additional Ancillary Services Capacity Monitor information.

Market Rules Update

- NPRR379, EILS Dispatch Sequence and Performance Criteria Upgrades
  Written in response to the February event, this NPRR improves the operational value of EILS and strengthens and clarifies a number of performance criteria for EILS. It is scheduled for for September Board consideration.

- ERCOT has submitted several NPRRs to support efforts to obtain an exemption from the Commodities Exchange Act:
  - NPRR347, Single Daily Settlement Invoice and Updates to Credit Calculations, including addition of a Minimum Collateral Exposure Component (August Board)
  - NPRR391, Shortening RTM Settlement and Payment Timeline and Eliminate ACH as a Mode of Payment (August PRS IA Review)
  - NPRR400, Eliminate Unsecured Credit for CRR Auctions and for Future Credit Exposure and Eliminate Netting of FCE with CCE (August PRS Language Review)

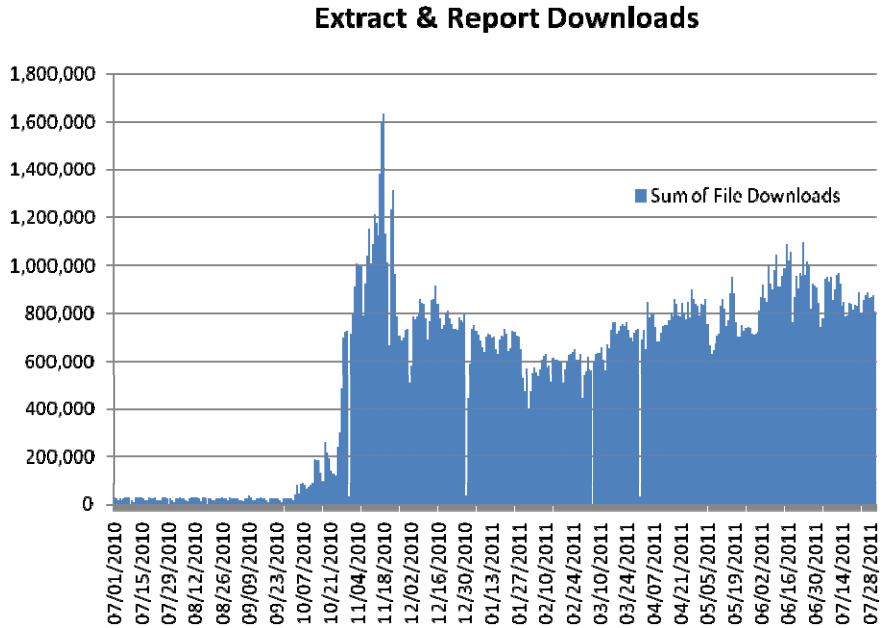
Enterprise Information – Extracts & Reports



The number of extracts and reports posted and downloaded is significantly higher with the nodal market.

July 2011 Statistics

Postings	*Downloads*
Total = 1,057,210	*Total = 28,222,036*
90% - Certified	*91% - Public*
6% - Secure	*7% - Secure*
4% - Public	*2% - Certified*



Questions?

Data Center Update

David Forfia

Board of Directors Meeting
August 16, 2011

Monthly Highlights & Upcoming Program Activities

- **Wave 1 – Corporate and Support Systems – remains in progress**
  - Email and file share migrations remain
- **Wave 1.5 – All Virtual Systems**
  - Completed
- **Wave 2 – Development & Integrated Test systems**
  - Taylor integrated test environments moved successfully
  - Load testing in progress
  - Austin integrated test environments move in August
- **Wave 3 – Bastrop Control and Data Center Commissioning**
  - Control room commissioned
  - 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 completed in July
  - Data center system moves begin in September and complete in December

Critical Path & Percent Complete

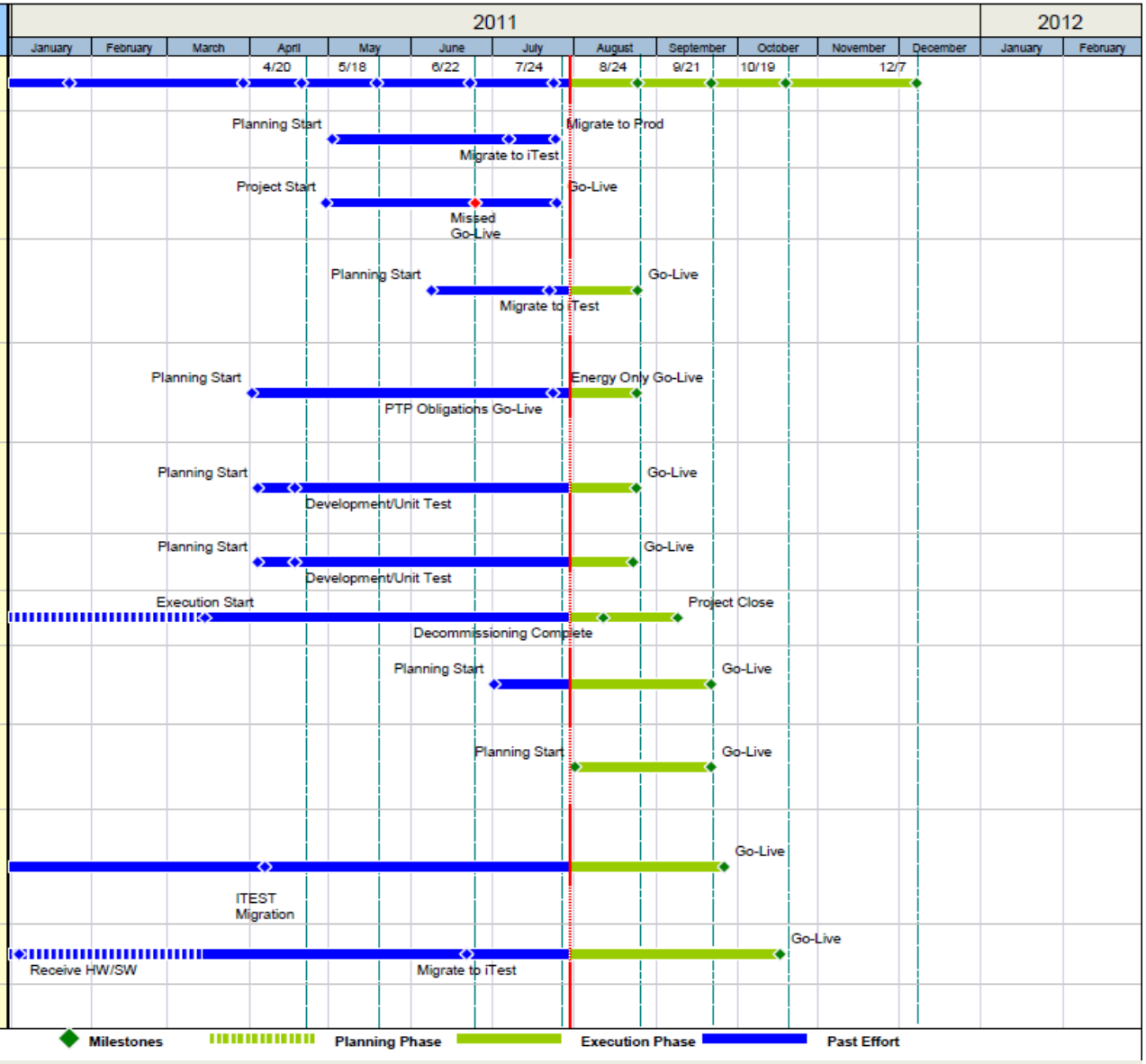
Critical Path Milestone	Planned Start	Actual Start	Planned Finish	Actual Finish	Status
Wave 0 - Wave 1 Equipment Installed	1/1/11	1/1/11	2/28/11	3/25/11	✓ Complete
Wave 1 - Supporting Systems Installed	3/1/11	3/25/11	5/16/11	4/22/11	✓ Complete
Wave 2 - Test Environments Moved	5/16/11	4/22/11	9/23/11		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	16.5%	23.3%	74.7%	100.0%
WAVE 1.5 - Virtual Host Migration	3/21/2011 3/21/2011	4/27/2011 6/21/2011	1.7% 14.0%		100.0% 100.0%	100.0% 100.0%
WAVE 2 Development and Testing	4/22/11 ~~5/16/2011~~	9/23/2011	35.8%	13.8%	64.2%	63.0%
WAVE 3 EMMS and Austin Control Room	7/4/2011	10/5/2011	3.7%	79.4%	2.0%	34.1%
WAVE 4 Bastrop Disaster Recovery Environment	7/1/2011	10/7/2011	4.8%	100%	0.0%	35.4%
WAVE 5 Production moved to TCC3	7/4/2011 ~~9/12/2011~~	12/4/201~~1~~ ~~1/17/2012~~	23.5%	3.5%	10.0%	20.7%
Overall	3/1/2011	1/17/2012	100.0%	17.3%	54.2%	49.4%

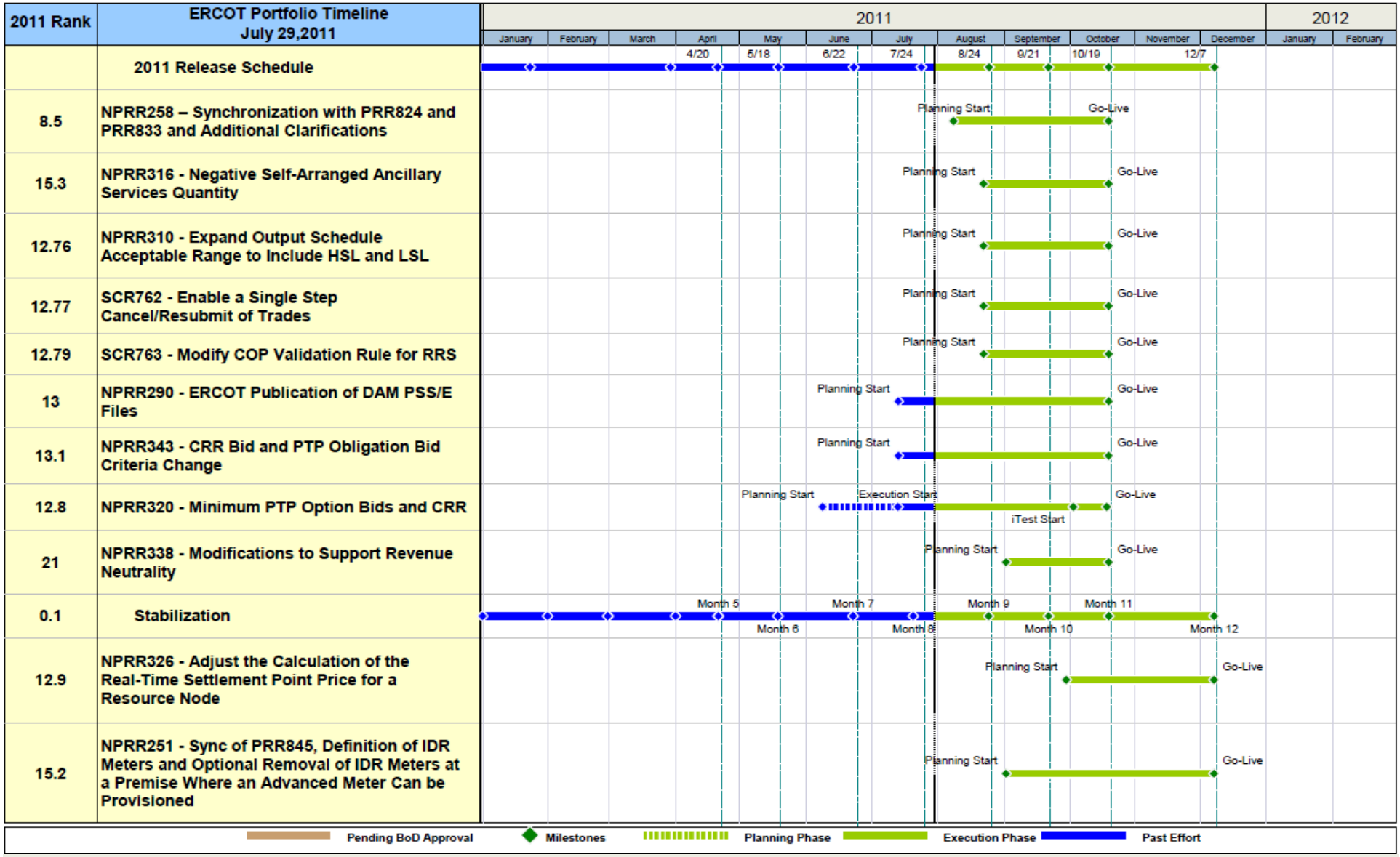
Appendix

ERCOT Portfolio Status Report (as of 8/5/2011)

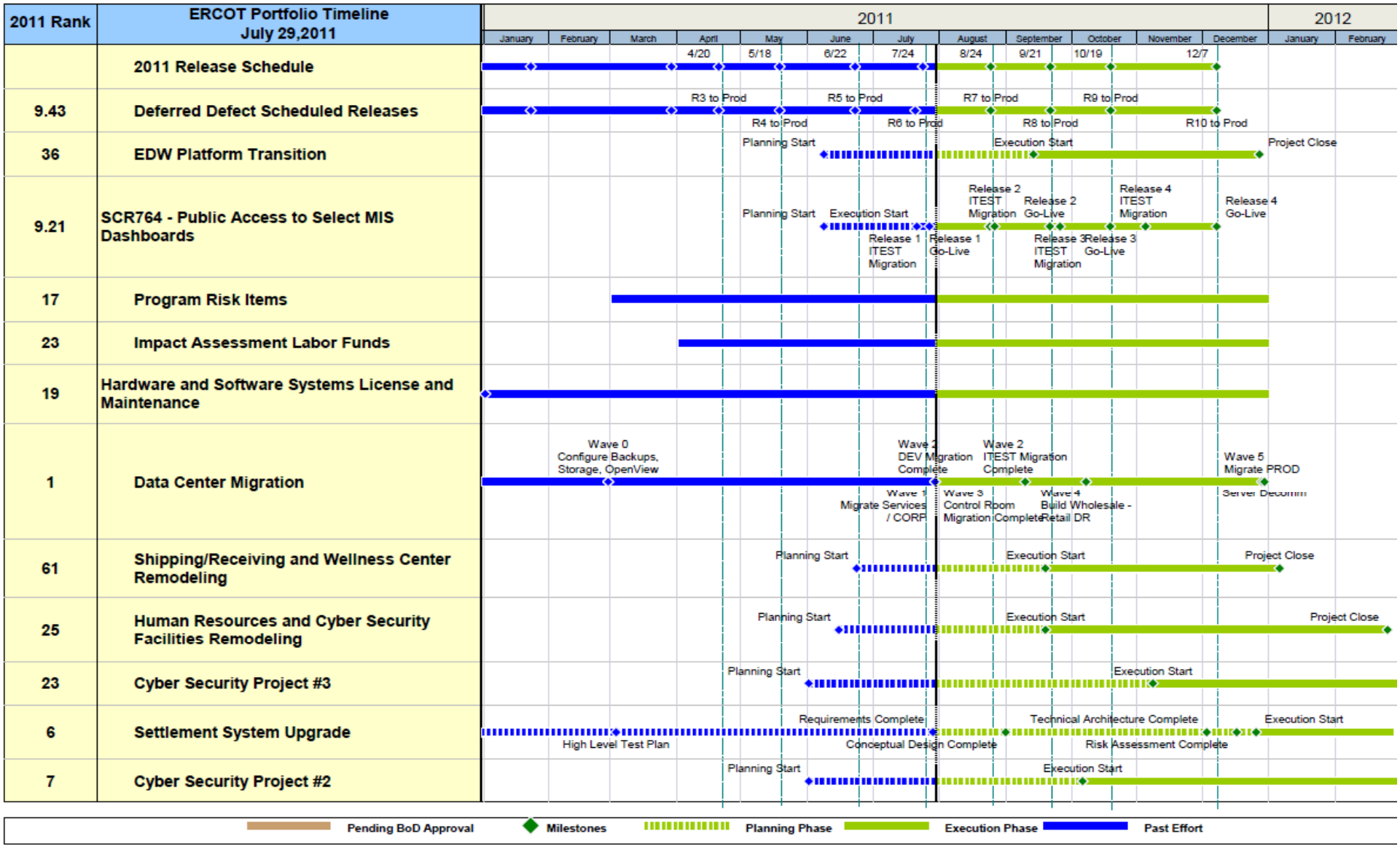
2011 Rank	ERCOT Portfolio Timeline July 29,2011
	2011 Release Schedule
9.42	NPRR282 - Dynamic Ramp Rates Use in SCED
8	IT Security Infrastructure Upgrade
9.22	NPRR350 - Change to the Security Classification of the System Ancillary Service Capacity Monitor Dashboard
12.75	NPRR323 - Correct DAM Credit Exposure Language and Enable Qualified Expiring CRRs to Offset PTP Bid Exposure
15.1	NPRR208 - Registration and Settlement of Distributed Generation (DG) Less Than One MW
20	NPRR221 - Automated Default Uplift Invoice
16	Zonal Decommissioning
9.46	NPRR376 – CRR Volume Limitation Enhancements
22	NPRR346 - Removal of Redundant Posting Requirement Related to Electrical Bus Changes
10	Data Research & Reporting
11	Data Agg Performance Improvements



ERCOT Portfolio Status Report (as of 8/5/2011)

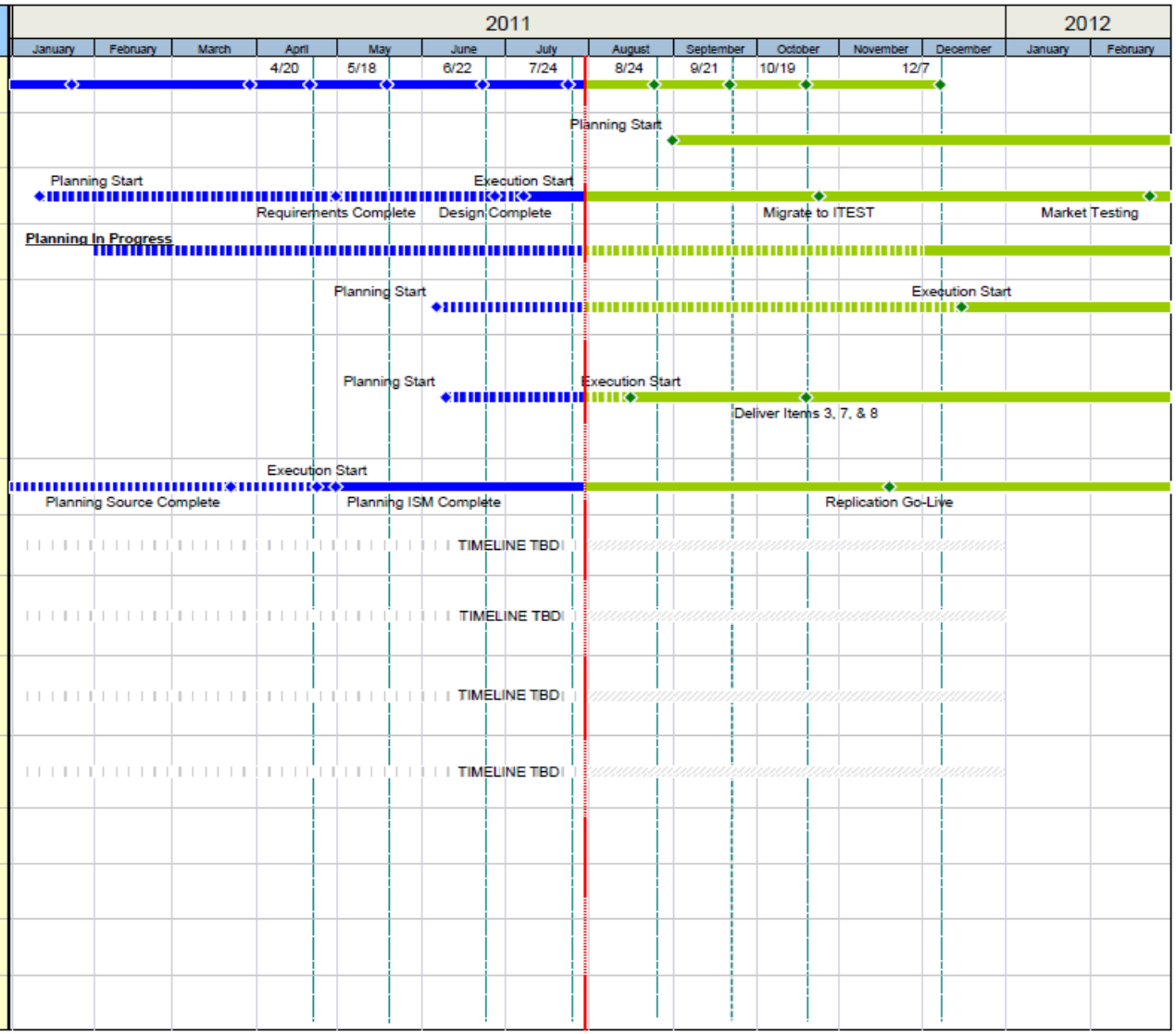


ERCOT Portfolio Status Report (as of 8/5/2011)



ERCOT Portfolio Status Report (as of 8/5/2011)

2011 Rank	ERCOT Portfolio Timeline July 29,2011
	2011 Release Schedule
9	MarkeTrak Upgrade & Enh.
3	Texas SET 4.0 / NPRR294
15	Nodal Release 2.0
5	Cyber Security Project #1
3.5	SCR760 - Recommended Changes Needed for Information Model Manager and Topology Processor for Planning Models
4	Information Lifecycle Mgmt Ph2
9.25	SCR765 - Public Aggregated Wind Dashboard
9.45	NPRR322 - Real-Time PTP Option Modeling
12.78	SCR761 - Provide Price Republication Notifications via API and Provide Price Corrections via XML
15.4	NPRR314 - Requirement to Post Generation Resources Temporal Constraints



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 August 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 August 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	Wave 1 in progress; Completes in July. Wave 2 started four weeks early. Migrations completing on schedule. Wave 3 started two weeks early. Bastrop control center commissioned successfully. 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 code complete. Vendor test and delivery in progress. Test output for all changes were verified by ERCOT. Planned for Production with October on cycle release (10/19 - 10/23). Requirements for SCR760-2, SCR760-4, and SCR760-9 finalized. Vendor proposal 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.	None	Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low

Projects Update

Project Name	Scope	Objectives	Current Status	Issue	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.	Some decommissioning of zonal hardware has been delayed due to resource constraints with the DC migration project. Expecting to submit a change request to extend the project to the end of the year for the following reasons: 1) A list of additional extracts which were missed in the initial analysis or reports and extracts need to be addressed 2) A solution for removing all Tru64 hardware has been found but will require additional effort to redirect the workflow to the Windows platform 3) Extend the timeline to allow all identified Zonal hardware to be decommissioned	Resource conflicts with DC project (resolved) by requesting an extension to Zonal Decommission project.	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: Delivered Groups 0 &1 deliverables to Production. Developing Group 2 and 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 vendor.	Continuing to 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 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 - Complete. Migration to Prod - In Progress.	None	Resource availability and delivery timelines may be impacted by Stabilization efforts and/or other priorities.	Low

Projects Update

Project Name	Scope	Objectives	Current Status	Issue	Potential Risks	Risk Probability
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. Testing - in Progress.	None	Resource availability and delivery timelines may be impacted by Stabilization efforts	Low
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.	Energy Only Bid portion of this NPRR is scheduled for migration the week of August 22nd.	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.	Execution started in July with production implementation targeted for week of August 22nd.	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.	Execution started in July with production implementation of first dashboard (Real Time System Conditions) targeted for week of August 22nd. Other production dates are as follows: - Load Forecast vs. Actual Dashboard (September go-live) - SCED Up/Down Dashboard (October go-live) - LMP Ticker & LMP Contour Map Dashboards (December go-live)	None	Development life cycle may take longer than planned. Software defects discovered during testing may delay releases and affect the project timelines.	Low

Projects Update

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 - Complete. Code - 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
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 NPRR 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.	Gated to Execution. Will bundle release to production with NPRR343.	None	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**	This Nodal Protocol Revision Request (NPRR) would remove the ability to bid for Congestion Revenue Rights (CRRs) in the CRR Auction or bid for Point-to-Point (PTP) Obligations in the Day-Ahead Market (DAM) that exist entirely within a station.	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 transactions 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.	Gated to Planning. Requirements - Complete. Will bundle release to production with NPRR290.	Might require a two phased deliver cycle for MMs and CRR based on priorities of business and vendor(s).	Joint development effort between ERCOT and (2) vendors could results in elongated break/fix cycles should issues arise during the testing cycle.	Medium

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 current year funding!

2012 Project Prioritization – Regulatory

Project Category	2012 Rank	Project	2012 Budget	2013 Budget	2014 Budget	Source
Regulatory	1	REC Enhancements	$500k-$1M	-	-	PUCT
Regulatory	2 *	CFTC Compliance	$100k-$250k	-	-	ERCOT
Regulatory	3 *	Compliance Software Tool	$500k-$1M	-	-	ERCOT
		2012 Funding	$1,600,000			

* 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 *	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

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

* Projected carryover project from 2011

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-Com	-	$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	$5,950,000			

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

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	Information Lifecycle Mgmt Phase 2	$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	$1M-$2M	ERCOT
Technical Foundation	7	Enterprise DW Platform Transition	$500k-$1M	$3M-$5M	-	ERCOT
Technical Foundation	8	Job Scheduling Upgrade v8	$100k-$250k	-	-	ERCOT
Technical Foundation	9	Siebel Upgrade	$250k-$500k	-	-	ERCOT
Technical Foundation	10	NMMS Upgrade	$100k-$250k	-	-	ERCOT
Technical Foundation	11	DC Growth & Asset Replacement - 2012	$500k-$1M	$1M-$2M	-	ERCOT
Technical Foundation	12	CRR Upgrade	-	$100k-$250k	-	ERCOT
Technical Foundation	13	Business Intelligence Software Upgrade	-	$500k-$1M	-	ERCOT
Technical Foundation	14	Capacity growth - storage/comp.	-	$250k-$500k	-	ERCOT
Technical Foundation	15	Job Scheduling Upgrade v9	-	$250k-$500k	-	ERCOT
Technical Foundation	16	User Authentication Upgrade	-	$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	Minor Cap - Critical - 2013	-	$1M-$2M	-	ERCOT
Technical Foundation	20	Minor Cap - Critical - 2014	-	-	$1M-$2M	ERCOT
Technical Foundation	22	DC Growth & Asset Replacement - 2013	-	$1M-$2M	-	ERCOT
Technical Foundation	23	DC Growth & Asset Replacement - 2014	-	-	$3M-$5M	ERCOT
		2012 Funding	$6,500,000			

* Projected carryover project from 2011

Summary of Defects by Target Delivery (Stabilization & Deferred) (as of 8/4/2011)

Summary of Defects by Target Delivery

System	Open Stabilization Priority 2 Target August 2011	Deferred Defects Priority 3						Priority 4 & 5 Defects (Potential Future Work)		Total Defects
		Group 6 8/2011	Group 7 9/2011	Group 8 10/2011	Group 9 12/2011	Unassigned	Total	Deferred Defects	Stabilization	
MMS	6	2	18				20	15	49	**90**
EMS	2	4	4	14	11	59	92	221	75	**390**
COMS	1	4	6	5		4	19	14	25	**59**
CMM	6	2	1				3	2	2	**13**
NMMS				10			10	28	5	**43**
OS	5	3	2	3			8	5	2	**20**
CRR	4						0	3	14	**21**
MIS							0	3	12	**15**
CDR	1			1			1		19	**21**
EIS(EDW)							0	2		**2**
EIP				1			1	5	6	**12**
MPIM							0			**0**
Planning Model						2	2	1	4	**7**
Total	**25**	**15**	**31**	**34**	**11**	**65**	**156**	**299**	**213**	**693**

Summary Stabilization & Deferred Defect Changes (as of 8/4/2011)

	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	Jul 08 to Aug 04
Stabilization defects (changes since last report)								
New Priority 1, 2 Defects	111	56	86	26	46	40	20	10
New Deferred Defects	92	95	38	105	97	84	37	59
Defects Resolved	90	51	60	133	82	109	67	59
Deferred defects (changes since last report)								
Defects Resolved	83	41	9	45	47	31	17	6

Forecast for August Release (as of 8/4/2011)

Breakout of August Release

Project	Internal	Market Facing	Total
Stabilization defects	21	4	25
Deferred defects	12	3	15
Total	33	7	40