



ERCOT Finance & Audit Committee Meeting
7620 Metro Center Drive, Austin, Texas
Met Center, Conference Room 206
August 17, 2010; 7:30am – 9:55am*

Item #	Agenda Item Type	Description/Purpose/Action Required	Presenter	Time
1.		Call to order Executive Session	C. Karnei	7:30am
2.		2a. Announcement of proxies	C. Karnei	7:31am
	Decision required	2b. Approval of executive session minutes (Vote) (7/20/10)	C. Karnei	7:32am
	Informative	2c. 2009 compensation for unaffiliated members of the Board of Directors	B. Magness	7:33am
	For discussion	2d. Internal Audit status report	B. Wullenjohn	7:40am
	Informative	2e. Internal Audit 2010 goals update	B. Wullenjohn	7:45am
	For discussion	2f. Developing the risk-based 2011 audit universe and proposed audit plan	B. Wullenjohn	7:50am
	Informative	2g. EthicsPoint update	B. Wullenjohn	8:00am
	For discussion	2h. Quarterly private discussion with Chief Audit Executive	B. Wullenjohn	8:10am
3.	Informative	Contracts, personnel, litigation and security	Various	8:15am
		Recess Executive Session		8:20am
		Convene General Session		
4.	Decision required	Approval of general session minutes (Vote) (07/20/10)	C. Karnei	8:20am
5.	For discussion	Review assumptions and preliminary schedules for the 2011 annual operating budget	M. Petterson	8:21am
6.	Informative	Nodal credit risk profile and status	C. Yager	8:50am
7.	For discussion	Discussion of Market Credit Risk Standard audit requirement for 2010	C. Yager	9:15min
8.	Informative	Follow-up to Commissioner Anderson's question regarding investment risk and diversification	C. Yager	9:20am
9.	For discussion	Review of First Priority Security Interest Agreement	C. Seely	9:30am
10.	Informative	Committee Briefs (Q&A only)	All	9:40am
11.	Informative	Future agenda items	M. Petterson	9:45am
12.		Other business	M. Petterson	9:47am
		Adjourn ISO meeting	C. Karnei	9:50am

** Background material is enclosed or will be distributed prior to meeting. All times shown in the agenda are approximate. The next Finance & Audit Committee Meeting will be held Tuesday, September 21, 2010, at ERCOT, 7620 Metro Center Drive, Austin, Texas 78744, in Room 206.*

Decision required
For discussion

4. Approval of General Session Minutes Clifton Karnei

Approval of General Session Minutes

- Vote 7/20/10

**DRAFT ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
MINUTES OF THE FINANCE & AUDIT COMMITTEE – GENERAL SESSION**

7620 Metro Center Drive (Room 206) – Austin, Texas 78744
July 20, 2010

Pursuant to notice duly given, the Finance & Audit Committee (“Committee”) of Electric Reliability Council of Texas, Inc. (“ERCOT”) convened on the above-referenced date. Committee Chairman Clifton Karnei confirmed that a quorum was present and called the meeting to order at approximately **8:00 a.m.** The Committee immediately went into Executive Session, where it remained until it recessed and reconvened in General Session at **9:05 a.m.**

General Session Attendance:

Committee members:

Bermudez, Jorge	Unaffiliated Board Member	Unaffiliated Board Member	Present
Crowder, Calvin	American Electric Power Service Corporation	Investor Owned Utility	Present
Dreyfus, Mark	Austin Energy	Municipal	Present
Espinosa, Miguel (Vice Chair)	Unaffiliated Board Member	Unaffiliated Board Member	Present
Fehrenbach, Nick	City of Dallas	Commercial Consumers	Present
Karnei, Clifton (Chair)	Brazos Electric Power Cooperative	Cooperative	Present
Zlotnik, Marcie	StarTex Power	Independent REP	Present

Other Board Members and Segment Alternates:

Walker, Mark	NRG Texas	Independent Generator	Present
Whittle, Brandon	DB Energy Trading	Independent Power Market Representative	Present

ERCOT Staff and Guests:

Anderson, Troy	ERCOT – Manager, Enterprise Project Portfolio
Blackburn, Don	Luminant
Brenton, Jim	ERCOT – Principal Cyber Standard Development
Cleary, Mike	ERCOT – Chief Operating Officer
Clemenhausen, Barbara	Topaz Power Management
Day, Betty	ERCOT – Director, Commercial Operations
DiPastena, Phil	ERCOT – Manager, Enterprise Risk
Doggett, Trip	ERCOT – Chief Executive Officer
Feurerbacher, Paula	ERCOT – Manager, Strategic / Organizational Development
Forfia, David	ERCOT – Director, Informational Technology Infrastructure
Fox, Kip	AEP
Gage, Theresa	ERCOT – Manager, Government Relations
Hellinghausen, Bill	EDR Trading
Helton, Bob	International Power America Services

Jones, Brad	Luminant
Jones, Randy	Calpine
Lester, Suzanne	ERCOT – Executive Assistant, Finance
Oehler, Melissa	Public Utility Commission of Texas (PUCT)
Magness, Bill	ERCOT – Interim Vice President and General Counsel
Manning, Chuck	ERCOT – Vice President and Chief Compliance Officer
Morehead, Juliana	ERCOT – Associate Corporate Counsel
Moseley, Cheryl	EROCT – Manager, ICMP
Morgan, Richard	ERCOT – Vice President and Chief Information Officer
Petterson, Mike	ERCOT – Controller
Seymour, Cesar	Suez Energy
Smitherman, Barry T.	Public Utility Commission of Texas (Chairman)
Stauffer, Tarra	ERCOT – Paralegal
Swanson, Leslie	ERCOT – Manager, Treasury (Contractor)
Wullenjohn, Bill	ERCOT – Director, Internal Audit
Yager, Cheryl	ERCOT – Treasurer

Chairman Karnei announced that a quorum was present.

Approval of Prior Meeting General Session Minutes – June 15, 2010 (Agenda Item 4)

Chairman Karnei asked that the General Session Minutes from the June 15, 2010 (Minutes) be revised to reflect the following:

- Regarding Parent Guarantees for Financial Institutions, the final sentence of the second full paragraph from the bottom of Page 3 of the Minutes should read, “The Committee recommended that the Credit Working Group perform a preliminary review of Morgan Stanley’s proposed changes of the Guarantee.”
- The sentence stating that Mr. Espinosa excused himself from the room during the PCard Update should be removed, and reflected in the Parent Guarantees section as “Mr. Espinosa excused himself from the room during the Morgan Stanley discussion.”

Mr. Karnei asked for a motion to approve the June 15, 2010 General Session F&A Committee meeting minutes as revised.

Miguel Espinosa moved to approve the Minutes as revised. Nick Fehrenbach seconded the motion. The motion passed unanimously with no abstentions.

Review Assumptions for Preparation of the 2011 Annual Operating Budget (Agenda Item 5)

Mike Petterson, ERCOT Controller, provided the Committee with an update on preliminary assumptions for the preparation of the 2011 Annual Operating Budget. Mr. Petterson reminded the Committee of the need to identify and justify future resource requirements prior to making assumptions regarding how the resource requirements would be funded.

Mr. Petterson grouped the resource requirements in to two categories: (1) steady-state base operational resource requirements (i.e., staffing, operating costs, hardware and software, technology maintenance, facilities, construction, financing of past commitments on project expenditures, etc.); and (2) resource requirements related to project initiatives (i.e., Nodal stabilization, replacement of data center hardware and software, and organizational

restructuring consistent with external recommendations). Materials concerning each cost category were provided. Mr. Crowder inquired as to the process for determining the Nodal Stabilization project budget. Mr. Petterson responded that ERCOT had launched a task-based project to review, and identify resources necessary for Nodal Stabilization.

Mr. Espinosa asked whether the 2011 Budget would be based on historical data or on a zero-based bottom-up process. Mr. Petterson replied that although ERCOT would like to work as closely as possible with a zero-based budget, given past system choices, the maintenance of such systems in place in the Zonal market and the incremental systems in place in the Nodal market, it did not seem realistic to do so as far as resource requirements related to project incentives were concerned. However, he noted, from a staffing perspective, the use of a zero-based budget process would be implemented to the extent possible in determining the required resources of an Independent System Operator.

Discussion then turned to the timing for finalizing the recommended 2011 Budget. Mr. Karnei confirmed that there would be opportunities for the Committee to do a preliminary review in August 2010, September 2010, and October 2010, with a final management recommendation to go to the Board of Directors in November 2010 for approval. Committee members encouraged that assumptions be addressed as early in the process as possible.

Quarterly Investment Review (Agenda Item 6)

Leslie Swanson provided the Quarterly Investment Review. She informed the Committee of a slight increase in rates for two funds, but noted that they leveled out by the end of June 2010. Ms. Swanson assured the Committee that ERCOT's strategy remained focused on safety, liquidity, and return, in that particular order, and mentioned that investment funds remained the same as in the prior quarter.

Ms. Swanson noted that ERCOT received \$193,159.29 from the Reserve, bringing ERCOT's total loss down to approximately \$391,000, showing a recovery of about 99.18%.

Messrs. Karnei and Espinosa gave Mr. Bermudez a brief overview and history of ERCOT's funds. Ms. Yager agreed to provide Mr. Bermudez with ERCOT's Investment Standard and meet with him to further discuss ERCOT's financial standards and processes.

Credit Briefing – Potential Credit Risk (Agenda Item 7)

Cheryl Yager provided the Committee with the Credit Briefing on Potential Credit Risk, and reminded the Committee that the base case considers the collateral that ERCOT is allowed to collect, whereas the current case includes, as a minimum, collateral held by ERCOT at the beginning of the simulation period. Ms. Yager directed the Committee to results from a seven-month perspective (representing from May 1, 2010 to November 30, 2010) and a twelve-month perspective, as contained in Committee materials. She noted that base case residual credit risk remained comparable to prior quarters, with slight increases in risk up to the 99% confidence level, and a decrease in risk at the higher percentiles in both the base case and current case scenarios.

Using the base case scenario, Ms. Yager then provided the Committee with a summary of most common outcomes (7-month period) and extreme events (7-month period), and reviewed comparisons of FYE-2009 (7-month), FYE-2009 (12-month), and Q3-2009 (between quarters).

Mr. Karnei provided an overview of ERCOT's history of defaults and subsequent uplifts to the market for new Committee Member, Mr. Bermudez. Ms. Yager added that ERCOT continues to monitor and discuss ERCOT's credit exposure, as well as disclose risks associated therewith. Mr. Bermudez inquired about potential future exposure, the risk profile, and the Credit Risk Model. Ms. Yager offered to include information relating thereto in a briefing with Mr. Bermudez.

Nodal Credit Status (Agenda Item 8)

Cheryl Yager led a discussion on the status of Nodal credit, which included a review of credit monitoring and management systems and processes. She reminded the Committee that credit became part of market trials in May 2010, which included:

- Posting credit reports for counter-parties twice daily;
- Sending available credit limits to Congestion Revenue Rights and Day Ahead Markets;
- Sending collateral calls when credit limits are exceeded;
- Recording "e-collateral" sent by counter-parties via email;
- Identifying and resolving issues as they arose; and
- Executing (and adapting, where needed) operating procedures.

Ms. Yager then discussed credit exposures seen in Nodal market trials and provided an example to highlight the levels of exposures seen in market trials relative to Zonal and Nodal "steady" states. Mr. Karnei asked that updated information be provided at the August 2010 meeting and inquired as to ERCOT's processes for identifying potential risks. Ms. Yager noted that ERCOT credit staff reviewed calculations each day, and watched for new risks that might need to be addressed. Mr. Bermudez inquired as to whether ERCOT was looking at how the Risk Profile would shift with Nodal. Ms. Yager noted that certain key risk factors in the Zonal market were expected to be present in Nodal, and highlighted two (2) new risks that were anticipated in Nodal: (1) the Day Ahead Market; and (2) CRR Obligations. She then summarized how ERCOT was addressing those risks, and highlighted the upcoming implementation of "e" factors in market trials.

Ms. Yager reviewed ERCOT's First Priority Security Interest (FPSI) and noted that Chad Seely, ERCOT Senior Corporate Counsel, would be assisting with issues concerning Nodal protocols. She explained the need for the document and provided an example of how exposure would be treated with, and without, a FPSI. Mr. Bermudez asked if using a FPSI would protect the market under bankruptcy laws. Ms. Yager responded in the affirmative but noted that ERCOT's legal department was investigating the issue.

Ms. Yager informed the Committee that without the FPSI, ERCOT could not be assured that it had the right to certain credits that could be netted from exposure. She then discussed the tentative timeline for drafting ERCOT's FPSI document, and noted that ERCOT received comments from Market Participants and would be circulating a second draft, following legal review, to the Committee at the August 17, 2010 meeting. A final review and possible approval by the Committee and the Board of Directors was expected to be undertaken in September 2010. Mr. Karnei asked that Mr. Seely provide the Committee with an update at the August 2010 meeting. Ms. Yager assured the Committee that Mr. Seely would be available at the August 2010 meeting to discuss the protection of ERCOT's FPSI from a legal standpoint.

Mr. Bermudez requested a further understanding of: (a) ERCOT's processes for defining its current risk profile; (b) ERCOT's risk exposure as Nodal goes live; (c) ERCOT's parameters for

determining whether there would be a shift in ERCOT's risk profile; (d) the size a potential shift and impact thereof to ERCOT's balance sheet; and (e) ERCOT's means of protecting against such shifts. Ms. Yager noted that although data was not indicative of a shift at this point, ERCOT would continue to analyze activity to evaluate risks following Nodal go-live. Mr. Karnei suggested that the Committee continue the discussion and further review ERCOT's risk profile at the August 2010 meeting.

Committee Briefs (Agenda Item 9)

Mr. Crowder commented that the Risk Report would be reviewed in detail at the Board of Directors meeting later that day, and would hold his comments until that time.

No Committee Briefs were provided.

Future Agenda Items (Agenda Item 10)

The following items were identified as future agenda items:

1. Standing Internal Audit agenda items
2. Assessment of compliance, the internal control environment and systems of internal controls
3. Review of preparation of the 2011 Annual Operating Budget
4. Review of assumptions in the 2011 Annual Operating Budget
5. Review Nodal Credit Status
6. Credit Briefing – Potential Future Risk
7. Review filing of IRS Form 990
8. Review of Investment Strategy
9. Quarterly Private Discussion with Chief Audit Executive
10. Committee Briefs
11. Future Agenda Items
12. Board disclosure regarding overpayment of Board reimbursements

Other Business (Agenda Item 11)

None.

Adjournment

Mr. Karnei adjourned the meeting at approximately **10:00 a.m.**

Juliana Morehead
Associate Corporate Counsel

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Mike Petterson

- **Key Cost Drivers**
 - Operating
 - Project
- **Cost Management Initiatives**
- **Staffing Approach**
- **Systems Operations Costs**
 - Hardware & Software Systems
 - Outside Services
 - Facilities

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: 2011 Budget Schedule

Action	Date
Finance and Audit Committee Meeting Discuss and Review preliminary 2011 Budget/PPL Status and Budget Assumptions	July 20, 2010
Finance and Audit Committee Meeting Discuss and Review the 2011 Budget/PPL Status and Budget Assumptions	August 17, 2010
Finance and Audit Committee Meeting Prepare and Present the 2011 Preliminary Budget/PPL (Courtesy Copy to all Board Members)	September 21, 2010
Finance and Audit Committee Special Meeting and Public Input Meeting Discuss and Review the 2011 Budget and PPL (Courtesy Copy to all Board Members)	October 18, 2010
Finance and Audit Committee Meeting Obtain 2011 Budget Recommendation Board of Directors Meeting Seek Board Approval of the 2011 Budget and PPL -Vote	November 16, 2010

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

- Cost is ERCOT's primary economic metric
- ERCOT's 2011 budget is affected by a few key cost drivers relating to transition to a Nodal market
- Costs are actively managed to ensure efficiency and accommodate cost increases associated with transition to a Nodal market

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Key Cost Driver

- Nodal market more complex than zonal market
 - Operationally
 - Day ahead market
 - Network model management system
 - Congestion revenue rights
 - High availability and reliability established in protocols and service level agreements
 - Technologically
 - “Best of breed” solution
 - Architecture, databases, and processing infrastructure
 - Systematic and functional integration
- Complexity translates into increased cost
 - Consistently estimated as \$0.15 - \$0.20 per MWh

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Cost Management

- Effort to manage and control costs include:
 - Active construction project management
 - Cost savings sharing arrangement
 - Unused contingency
 - On-going technological evaluations
 - Tier 1 versus Tier 2 storage leads to significant reduction in storage cost per terabyte
 - Independent assessment of telecommunication contracts
 - Contract negotiation and management
 - Proactive contract management with key vendors
 - Property tax abatements
 - Competitive processes for selection of facility service providers

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Operating Key Cost Drivers

Cost Category	Operating Expenses - Key Cost Drivers	Preliminary Estimated Range of Incremental Annual Cost
Hardware and Software Systems	License and maintenance and support payments for nodal market hardware systems and software applications *	\$6 - \$8 million
Outside Services	Dedicated, on-site vendor resources to ensure reliable operation of nodal market software applications	\$4 - \$5 million
Facilities	Bastrop control center to enhance reliability and security of grid, exchange, and retail market operation.	\$1 - \$2 million
Staffing	Staffing evaluation based upon an ISO capability model and accomplished through an organizational transformation project.	\$ In progress
	Total	\$11 - \$15 million

* Expansion of infrastructure processing costs

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Project Key Cost Drivers

Project Description	Project Expenditures - Key Cost Drivers	Preliminary Estimated Range of Incremental Annual Cost
Hardware systems and software applications replacement	Necessary replacement of essential hardware systems and software applications that have reached the end of their technological lifespan *	\$30 - \$40 million
Nodal stabilization	Resolution of known and unknown defects and incremental staff resources necessary to ensure smooth transition to nodal market operation.	\$12 - \$16 million
Organizational transformation	Activity to implement strategic initiatives, control modifications, and operational efficiencies to enable organizational staffing consistent with capability model expectations.	\$ In progress
Other	Various other projects being estimated before undergoing rigorous challenge by management.	\$ In progress
	Total	\$ In progress

* Cost per MWh to be reflected at 40 percent revenue funding and 60 percent debt funding.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Staffing Approach

- **Building Headcount based on Defined Services**
- **Recommendation based on ISO Capability Model**

Capability	
1	Transmission System Operation
2	Retail Market Operation
3	Wholesale Spot/Cash Market Operation
4	Renewable Energy Credits
5	Customer Care
6	Information Technology
7	Other Support & Management Functions

- **See Appendix for Capability Model Detailed to the Service Level**

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Example of Staffing Approach

Capability 2 - Retail Market Operations

- ERCOT overall staffing estimate is appropriate.
- MR recommended staffing includes an enhanced role for ERCOT in market development.

	Staffing
ERCOT Estimate	29.77
MR Recommended	30

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Example of Staffing Approach

Capability 2 - Retail Market Operations

Ref	Service Group	FTEs
	TOTAL	29.77
2.1	Retailer Registration	3.41
2.2	Customer Switching/Registry	6.52
2.3	Load Profile Determination and Management	2.00
2.4	Accumulation Metering, Data Collection & Data Aggregation	0.83
2.5	Interval/Smart Metering, Data Collection and Data Aggregation	0.88
2.6	Bulk Transfer Management	0.91
2.7	Market Information	2.70
2.8	Retail Market Development	6.96
2.9	Market Oversight	2.50
2.10	Dispute Management	3.06

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Example of Staffing Approach

Capability 2 - Retail Market Operations 2.2 – Customer Switching/Registry

Service Description	FTE Count	Protocol Reference
2.2.1 - Customer Choice Information Provision (Awareness Programs): Provision of information to customers to explain their switching choices and available prices.	0.0	No ERCOT requirement
2.2.2 - End Customer Registration: Collection and maintenance of registration data for the end consumer meter and the relevant retailer.	1.70	Protocol sections 15, 19 Retail Market Guide section 7 PUCT Chapter 25 Subchapters B & R (multiple sections)
2.2.3 - End Customer Transfer: Execute and communicate the transfer of an end consumer from one retailer to another.	4.82	Protocol sections 15, 19 Retail Market Guide section 7 PUCT Chapter 25 Subchapters B & R (multiple sections)
Total	6.52	

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Nodal Cost Impacts

Major IT Budget Categories – Base O&M Costs						
		2010			2011	
	<u>Current Base</u>	<u>Nodal</u>	<u>Total</u>		<u>Old Base</u>	<u>New Base</u>
Hardware/Software Maintenance	8.891	5.215	14.106		8.891	14.106
New (Alstrom, ABB, IBM Nexant, HDS, other)					0.824	2.302
Retirements (EMMS server maintenance)					(1.025)	(1.025)
Total	8.891	5.215	14.106		8.691	15.384
Outside Services Application vendors	0.040				0.040	0.040
New (Alstrom, ABB, Nexant, Siemens)					(0.040)	3.590
Total	.040		.040		0.000	3.630

Excludes application vendor FTE stabilization costs (\$2.550 MM)

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Facility Cost Impacts

Alternate Control Room

Major Budget Categories* - excludes FTE's			
<u>Capability/Service</u>	<u>2010</u>	<u>2011</u>	<u>Delta</u>
6.2.1 Network and Telecom Services**	3.757	3.589	(.168)
less WAN recovery	(2.297)	(2.297)	-
7.8.1 Facilities Management	4.160	5.547	1.387
7.8.2 Physical Security	.961	1.360	.399
Total	6.581	8.199	1.618

* Utility, Maintenance, Facilities + Materials, Outside Services

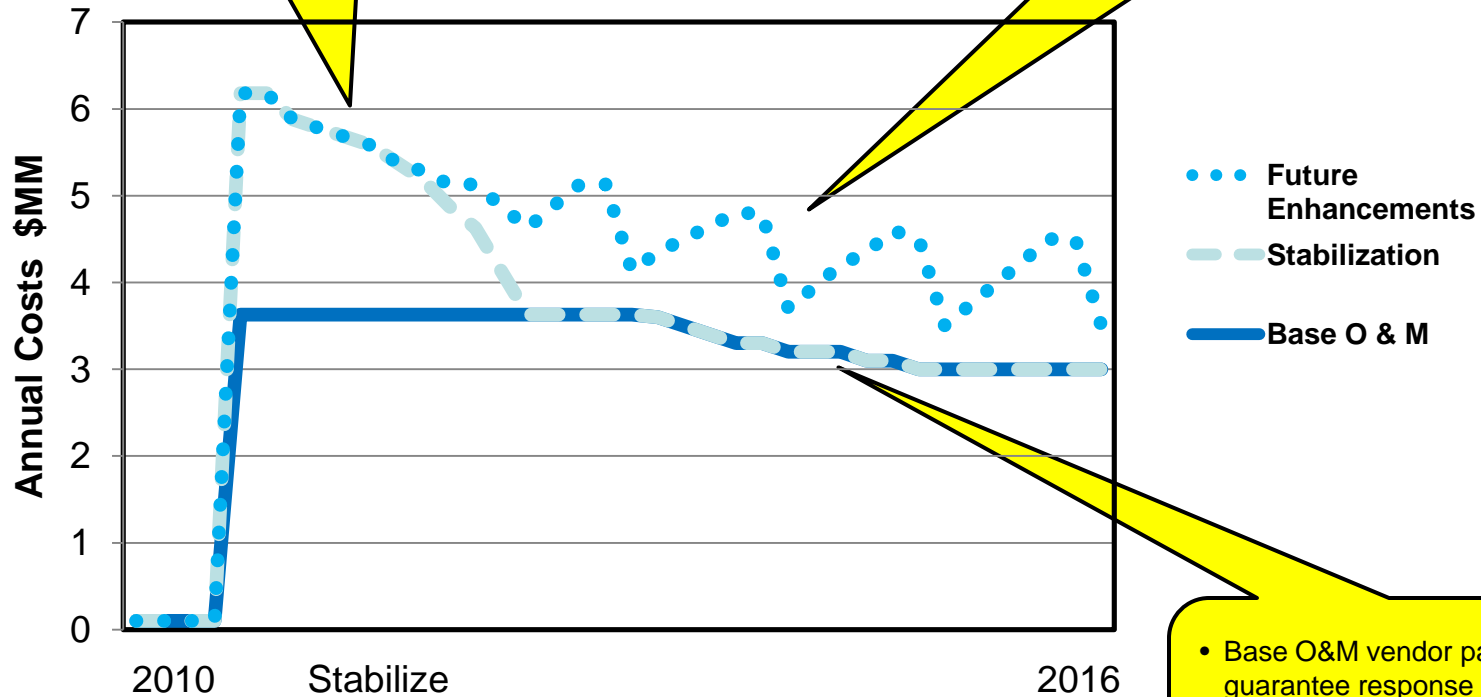
** Network and Telecom Services \$200K favorable YTD in 2010, \$120K increase in 2011 for Bastrop lines.

*Further Discussion
Systems Operations Costs*

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Application Vendor Support FTE Cost

- Variable Nodal system stabilization costs decrease in 2010 as systems operation matures
- Complement to Base O & M support.

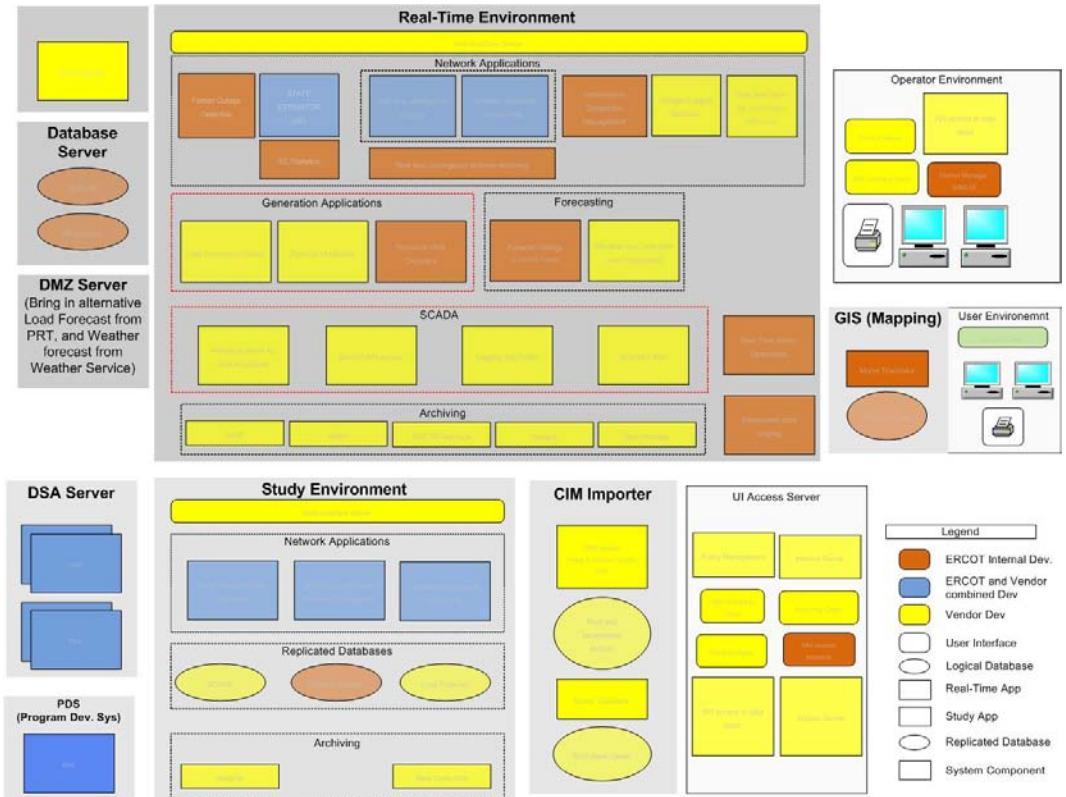
- Variable future development costs are manageable by contract or project
- Internal development resources moderate vendor costs.



- Base O&M vendor payments to guarantee response & support will remain high for foreseeable future
- Available O & M resources will be applied to development efforts.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Nodal Energy Management System Support

- Customized to fit the Texas Nodal Market
- Market Management System has similar levels of customization
- Combination of:
 - Vendor proprietary software (Yellow)
 - Vendor and ERCOT software (Blue)
 - ERCOT developed software (Red)
- ERCOT assumes role of system integrator
 - Quality control
 - Production service restoration
 - Problem isolation
- Requires vendor and internal support resources.



*Appendix:
Capability Model*

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Transmission System Operation (1.1 – 1.2)

1	TRANSMISSION SYSTEM OPERATION	
1.1	System Planning	
1.1.1	Transmission Adequacy Assessment	Assessing the adequacy of the transmission system to meet current and future needs.
1.1.2	Transmission Planning	Planning of future transmission system enhancements, including upgrades and new transmission lines.
1.1.3	Interconnection Planning	Planning of transmission connections with other jurisdictions' systems, including upgrades and new inter-jurisdictional transmission connections.
1.1.4	Generation/Resource Adequacy Assessment	Assessing the adequacy of the existing and planned generation to meet current and future load needs.
1.1.5	Generation & Load Planning	Planning of generation resources required to meet current and future load needs, including identification of preferred geographical locations of future generation sources.
1.2	Transmission Connection Management	
1.2.1	Connection Analysis/Studies	Conducting Initial and Detailed Connection Studies.
1.2.2	Connection Scheduling	Scheduling new connections to the transmission system.
1.2.3	Connection Oversight & Management	Managing new connections, from project management and compliance perspectives.
1.2.4	Connection Commissioning	Managing the steps required to commission a connection including commercial, technical considerations.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Transmission System Operation (1.3 – 1.4)

1.3	Grid Security Management	
1.3.1	Transmission Reliability Assessment	Assessment of the ability of the Transmission System to supply the electricity required (measuring actual reliability, comparing with target levels, and predicting future reliability).
1.3.2	Security/Contingency Analysis	Analysis which informs the development of processes and scenarios to support real-time system operations.
1.3.3	Security Coordination	Coordination of activities required to manage the security of the Transmission System.
1.3.4	System Restoration Planning	Planning for events where system restoration is required (e.g. Black Start events).
1.3.5	Ancillary Services Requirement Determination	Assessment of Ancillary Services requirements, either on a short (e.g. next day) or long term basis.
1.4	Outage Coordination/Planning	
1.4.1	Transmission Outage Coordination/Planning	Assessment and scheduling of transmission outage requests/notifications. Analysis and reporting of the impact of transmission outages. Coordination of transmission outages.
1.4.2	Resource Outage Coordination/Planning	Assessment and scheduling of generation outage requests/notifications. Analysis and reporting of the impact of generation outages. Coordination of generation outages.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Transmission System Operation (1.5 – 1.7)

1.5	Real-Time System Control	
1.5.1	Monitor and Control Transmission Network	Monitor and control the real-time power flows, voltages etc on the transmission system.
1.5.2	Monitor and Control Interconnectors	Monitor and control the real-time power flows, voltages etc on cross-jurisdictional transmission connections.
1.5.3	Instruct and Monitor Facilities	Instruct facilities to operate in a specified manner (eg at a specified power output) immediately.
1.5.4	Frequency Control (Facilities Real-Time Control)	Control of system frequency to within target tolerances, including activation of automated response to frequency changes.
1.5.5	Manage System Restoration	Manage the activities required to restore the transmission system (e.g. during black start events).
1.6	Scheduling & Dispatch	
1.6.1	Facilities Scheduling (inc. Unit Commitment)	Determining a desired schedule of when and in what manner (eg at a specified power output) facilities will operate.
1.6.2	Facilities Dispatch (Energy & Ancillary Services)	Instructing facilities to operate in a certain manner (eg at a specified power output) from a specified time in the future.
1.6.3	Interconnection Scheduling	Scheduling of power flows across cross-jurisdictional transmission connections.
1.7	Forecasting	
1.7.1	Load Forecasting	Preparation of forecasts of system load, either on a short term basis (e.g. for the next day) or long term basis (e.g. 5 year load growth forecast).
1.7.2	Wind Forecasting	Preparation of forecasts of generation output from wind generation (usually for the next few days).

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Transmission System Operation (1.8)

1.8	Operational Testing and Performance Management	
1.8.1	Generator Commissioning Testing	Testing of generator units that are commissioning, including: Communications (e.g. SCADA) Technical (e.g. generator performance)
1.8.2	Generator Operational Testing	Testing of connected and active generator units to allow issues to be resolved and to confirm generator responses. This may be Arranged Testing (i.e. scheduled before the day), or Within Day Testing.
1.8.3	Generator Black Start Testing	Testing to confirm that contracted Black Start services are available. This typically comprises one of two possible tests: On-site (unit starts up on instruction and provides the required level of output). Connected (confidence that the unit would be able to start the next required generator unit on the transmission system)
1.8.4	Generator Performance Assessment	Monitoring and reporting of generator performance against defined obligations and contractual requirements (e.g. ability to meet minimum agreed performance standards).
1.8.5	Load-Participation Performance Assessment	Monitoring and reporting of performance of load resources able to provide load reduction or ancillary services against defined obligations and contractual requirements (e.g. ability to meet minimum agreed performance standards).

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Transmission System Operation (1.9 – 1.12)

1.9	Commercial Management	
1.9.1	Manage Interconnection Capacity Rights Reservation	Management of long term allocation of available capacity.
1.9.2	Manage Interconnection Capacity Rights Trading	Management of trading of Interconnection Capacity Rights, based on available capacity.
1.9.3	Ancillary Services Procurement (Non-Market)	Procurement of ancillary services that are not covered within the Wholesale Market pricing/scheduling calculations.
1.9.4	Transmission Loss (Adjustment) Factor Determination	Calculation of Transmission Loss Factors, for use in wholesale scheduling, pricing and billing/settlement activities.
1.9.5	Network Code/Agreement Management	Management of transmission network code and/or agreements; maintenance of registry of signatories.
1.9.6	Monitor Network Code/Agreement Compliance	Monitoring and reporting of compliance with relevant network code and/or agreements.
1.10	Operational Support	
1.10.1	Operations Analysis and Reporting	Analysis of system operations and reporting to ERCOT, PUCT etc.
1.10.2	Operator Training	Training of system operators in existing and new processes, market changes and statutory requirements.
1.11	Compliance Monitoring & Reporting	
1.11.1	Dispatch Compliance	
1.11.2	Policy & Procedure Compliance	
1.12	Standards Development	

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Retail Market Operation (2.1 – 2.3)

2	RETAIL MARKET OPERATION	
2.1	Retailer Registration	
2.1.1	Retailer Registration & Qualification	Operation of the qualification and registration processes through which the retailer becomes eligible to participate in the Retail Market. This includes maintenance of the relevant registration data.
2.2	Customer Switching/Registry	
2.2.1	Customer Choice Information Provision (Awareness Programs)	Provision of information to customers to explain their switching choices and available prices.
2.2.2	End Customer Registration	Collection and maintenance of registration data for the end consumer meter and the relevant retailer.
2.2.3	End Customer Transfer	Execute and communicate the transfer of an end consumer from one retailer to another.
2.3	Load Profile Determination and Management	
2.31	Load Profile Customer Segment Determination	Determination of customer classes for which load profiles are required.
2.32	Load Profile Management	Management of load profiles, including planning and management of sample data collection and calculation of load profiles.
2.33	Load Profile Parameter Calculation	Calculation of load profile parameters (usually on a daily basis)

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Retail Market Operation (2.4 – 2.5)

2.4	Accumulation Metering, Data Collection and Data Aggregation	
2.4.1	Meter Installation	Installation of accumulation meters to measure end customer electricity use.
2.4.2	Meter Maintenance	Maintenance of installed accumulation meters.
2.4.3	Meter Registration	Collection and maintenance of registration information relating to end consumer accumulation meters and association with the relevant retailer.
2.4.4	Meter Data Collection	Collection of actual electricity usage data, using accumulation meters.
2.4.5	Meter Data Validation & Substitution	Validation of collected meter data, with substitution where necessary.
2.4.6	Profiled Usage Estimation	Application of approved load profiles to meter data to calculate profiled usage estimates for end customers.
2.4.7	Usage Data Aggregation	Aggregation of usage data for wholesale market billing/settlement.
2.5	Interval/Smart Metering, Data Collection and Data Aggregation	
2.5.1	Meter Installation	Installation of interval/smart meters to calculate end consumer electricity usage.
2.5.2	Meter Maintenance	Maintenance of installed interval/smart meters.
2.5.3	Meter Registration	Collection and maintenance of registration information relating to end customer interval/smart meters and association with the relevant retailer.
2.5.4	Meter Data Collection	Collection of actual electricity usage data, using interval/smart meters.
2.5.5	Meter Data Validation & Substitution	Validation of collected meter data (with substitution where necessary) to support accurate wholesale market settlement.
2.5.6	Meter Data Aggregation	Aggregation of usage data for wholesale market billing/settlement.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Retail Market Operation (2.6 – 2.8)

2.6	Bulk Transfer Management	
2.6.1	Bulk Transfer Activation	Determination of the requirement to transfer groups of end consumers at one time from their current retailer to another retailer. This may be activated by: Purchaser of Last Resort (PoLR) provisions being triggered or by sale of part or all of a Retailer's customer portfolio to another retailer.
2.6.2	Bulk Customer Transfer Management	Management (including execution) of transfer of groups of end consumers from their current retailer to another retailer.
2.6.3	End Customer Notification	Notification to end consumers that transfer from one retailer to another is complete (where the transfer is involuntary).
2.7	Market Information	
2.7.1	Switching Analysis and Reporting	Analysis of volumes, trends etc. with respect to retailer switching.
2.7.2	Retail Market Notice Publication	Publication of Retail Market Notices.
2.8	Retail Market Development	
2.8.1	Policy Definition	Setting policy which determines the design of market arrangements.
2.8.2	Market Design Definition	Designing market changes within the bounds of the defined policies and legislation.
2.8.3	Rules Definition	Defining the rules required to implement market design decisions.
2.8.4	Rules Administration	Administering the updating of market rules.
2.8.5	Procedure Definition	Defining market procedures. These provide details of the operational procedures to be followed for interfaces between parties (for example, Market Participants and the Market Operator).
2.8.6	Procedure Administration	Administering the updating of market procedures.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Retail Market Operation (2.9)

2.9	Market Oversight	
2.9.1	Policy/Rules Compliance	Monitoring and reporting on compliance with the policies and market rules, both by the market operator and by participants.
2.9.2	Process/Procedure Compliance	Monitoring and reporting on compliance with the market procedures, both by the market operator and by participants.
2.10	Dispute Management	
2.10.1	Dispute Management	Managing Retail Market Disputes, within the defined rules and processes (including ensuring that external parties participate as required).

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Wholesale Spot/Cash Market Operation (3.1 – 3.3)

3	WHOLESALE SPOT/CASH MARKET OPERATION	
3.1	Participant Registration	
3.1.1	Participant Registration & Qualification Management	Operation of the qualification and registration processes that Market Participants must complete to becoming eligible to participate in the Wholesale Market. This includes maintenance of the relevant registration data.
3.2	Bidding, Scheduling and Pricing	
3.2.1	Bid/Offer Receipt and Management	Management of processes enabling the receipt of bids and offers from Market Participants.
3.2.2	Real-Time Market Execution (Dispatch and Pricing)	Execution of processes which produce real-time market schedules and prices.
3.2.3	Day-Ahead Market Execution (Unit Commitment/Scheduling & Pricing)	Execution of processes which produce day ahead market schedules and prices.
3.3	Wholesale Metering, Data Collection and Data Aggregation	
3.3.1	Meter Installation	Installation of wholesale interval meters to calculate transmission system entry and exit point electricity volumes.
3.3.2	Meter Maintenance	Maintenance of wholesale interval meters.
3.3.3	Meter Registration	Collection and maintenance of registration information relating to wholesale interval meters and where appropriate association with the relevant Market Participant (generator or retailer).
3.3.4	Meter Data Collection	Collection of electricity entry and exit point data, using wholesale interval meters.
3.3.5	Meter Data Validation & Substitution	Validation of collected meter data with substitution and estimation where necessary.
3.3.6	Meter Data Aggregation	Aggregation and processing of entry and exit point data for wholesale market billing/settlement.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Wholesale Spot/Cash Market Operation (3.4 – 3.7)

3.4	Billing, Settlement & Credit Management	
3.4.1	Market Settlement	Calculation of market payments due to/from Market Participants. Separately, calculation of fees/charges due.
3.4.2	Billing	Billing to Market Participants (including invoices and credit notes) in respect of market settlement, and market participation/other related fees.
3.4.3	Payment Management	Management of payments due/from Market Participants.
3.5	Credit Management	
3.5.1	Credit Risk Management	Managing credit risk of MPs
3.5.2	Treasury (Cash and Collateral) Management	Managing funds received and to be issued.
3.5.3	Financial Default Process Management	Managing wholesale market defaults, including execution of processes to remove defaulting Market Participants from the market.
3.6	Market Information	
3.6.1	Market Data Publication	Publication of defined wholesale market data (usually as defined within market rules or procedures).
3.6.2	Market Analysis	Analysis of volumes, trends etc. with respect to the wholesale market.
3.6.3	Market Notice Publication	Publication of Wholesale Market Notices.
3.7	CRR/FTR Management	
3.7.1	Congestion Revenue Rights Allocation	Calculation of Congestion Revenue Rights and allocations.
3.7.2	Congestion Revenue Rights Auction	Auctioning of allocated Congestion Revenue Rights.
3.7.3	Maintain CRR Registry	Maintain registry of Congestion Revenue Right title holders.
3.7.4	Manage Secondary Trading of CRRs	Manage secondary trading of CRRs between counterparties.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Wholesale Spot/Cash Market Operation (3.8 – 3.10)

3.8	Wholesale Market Development	
3.8.1	Policy Definition	Deciding policy which determines the design of market arrangements.
3.8.2	Market Design Definition	Designing market changes within the bounds of the defined policies and legislation.
3.8.3	Rules Definition	Defining the rules required to implement market design decisions.
3.8.4	Rules Administration	Administering the updating of market rules.
3.8.5	Procedure Definition	Defining market procedures. These provide details of the operational procedures to be followed for interfaces between parties (for example, Market Participants and the Market Operator).
3.8.6	Procedure Administration	Administering the updating of market procedures.
3.9	Market Oversight/Monitoring	
3.9.1	Policy/Rules Compliance	Monitoring and reporting on compliance with the policies and market rules, both by the market operator and by participants.
3.9.2	Process/Procedure Compliance	Monitoring and reporting on compliance with the market procedures, both by the market operator and by participants.
3.9.3	Market Surveillance	Monitoring the wholesale market to identify opportunities or inefficiencies in the market.
3.9.4	Trade Surveillance	Monitoring trading practices in the wholesale market to identify inefficient or anti-competitive practices.
3.1	Dispute Management	
3.10.1	Dispute Management	Managing Wholesale Market Disputes, within the defined rules and processes (including ensuring that external parties participate as required).

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Renewable Energy Credits (4.1 – 4.8)

4	RENEWABLE ENERGY CREDITS	
4.1	REC Definition	Setting of specifications for RECs
4.2	Facility Accreditation	Definition of requirements for eligibility to be issued with RECs; assessment of compliance with requirements.
4.3	Determine REC Obligations and Verify Compliance	Determination of REC obligations for retailers/utilities and post-period verification of compliance with defined obligations.
4.4	Facility Registration	Registration of facilities to which RECs are issued.
4.5	REC Issuance and Retirement	Issuance of RECs and retirement once RECs are "used".
4.6	Verify REC Validity	Verify meter data and self notifications used to support REC Issuance.
4.7	REC Title Tracking	Management of the ownership of RECs (including counterparties).
4.8	Information Publication	Publication of information on REC compliance, eligibility and title changes.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Customer Care (5.1 – 5.3)

5	CUSTOMER CARE	
5.1	Training & Education Delivery	Development of training materials and delivery of training to Market Participants and interested parties.
5.2	Helpdesk Management	Management of queries and information requests from Market Participants and other interested parties.
5.3	Account Management	Management of customer relationships

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Information Technology (6.1 – 6.2)

6	INFORMATION TECHNOLOGY	
6.1	IT Application Services	
6.1.1	Database Administration	
6.1.2	Corporate Applications	Operations, maintenance, support, development
6.1.3	Systems Operations Applications	Operations, maintenance, support, development
6.1.4	Wholesale Market Operations Applications	Operations, maintenance, support, development
6.1.5	Retail Market Operations Applications	Operations, maintenance, support, development
6.1.6	Enterprise Integration	Operations, maintenance, support, development
6.1.7	Vendor Management	Managing IT vendor relationships
6.1.8	Release Management	Scoping, planning, and managing application releases
6.1.9	Other Application Services	
6.2	IT Infrastructure Services	
6.2.1	Network and Telecom Services	Managing network, monitoring performance, etc.
6.2.2	Server Support	Provisioning, installation, maintaining servers
6.2.3	Enterprise Architecture	Designing architecture; vendor selection
6.2.4	Enterprise Storage	Provisioning, installation, maintaining storage devices
6.2.5	IT Security	Developing strategy, implementing solutions, monitoring
6.2.6	Other IT Infrastructure Services	

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Information Technology (6.3 – 6.4)

6.3	IT Support	
6.3.1	Help Desk	Receive and resolve end-user issues
6.3.2	Field Services	Deskside services
6.3.3	Other IT Support Services	
6.4	IT Strategy & Planning	
6.4.1	IT Strategic Planning, Budgeting	Developing strategy and budgeting and monitoring
6.4.2	IT Standards	Establishing standards and monitoring compliance
6.4.3	Other IT Strategy & Planning	

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Other Support & Management Functions (7.1 – 7.6)

7	OTHER SUPPORT & MANAGEMENT FUNCTIONS	
7.1	Executive Support	
7.1.1	Office of the CEO	CEO and direct management support
7.1.3	Board Support	Business strategy; corporate development
7.2	Administrative Support	
7.2.1	Administrative Support	Secretarial, logistic
7.3	Strategy & Business Planning	
7.3.1	Strategy & Business Planning	Secretarial, logistic
7.4	Internal Audit	
7.4.1	Internal Audit	Internal auditing; does not include independent market monitor; does not include external auditors.
7.5	Legal	
7.5.1	Regulatory	Regulatory legal support (e.g. rules, PUCT filings, other regulatory interactions)
7.5.2	Corporate	Corporate legal matters, e.g. contracts, employment law, etc.
7.6	Finance	
7.6.1	General Accounting & Finance	General accounting; AP/AR; financial reporting; planning, budgeting and forecasting; etc. (not functions related to managing the markets money, such as credit management)
7.6.2	Purchasing & Contract Administration	Purchasing; procurement; supplier management; contract administration
7.6.3	Payroll	Payroll management

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

Capability Model: Other Support & Management Functions (7.7 – 7.11)

7.7	Human Resources	
7.7.1	Human Resources	Human resource management; internal training; compensation; benefits; employee development; performance monitoring
7.8	Facilities/Security	
7.8.1	Facilities Management	Cleaning crews, facilities managers
7.8.2	Physical Security	Security guards at all buildings
7.9	Stakeholder Relations	
7.9.1	Government and Regulatory Relations	Relations with policy-making bodies
7.9.2	Communications	Public relations; internal communications
7.10	Project / Program Management	
7.10.1	Project and Program Management	Enduring project management/project office capability; oversight of project portfolio (not staffing for individual project - see below)
7.11	Risk Management	

6. Nodal Credit Risk Profile and Status: Overview

Cheryl Yager

- **CMM Status**
- **Risk Profile**
- **“e” Factor update**

6. Nodal Credit Risk Profile and Status: CMM Status

Cheryl Yager

System Readiness	Planned completion	Status
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CMM

CMM live in Market Trials	May 14	Complete
CMM integrated in Market Trials	May 14	Complete
In MTs - Reviewing activity, posting Credit Reports daily and sending ACLs daily	Ongoing	Green
ERCOT performs and validates credit calculations for a statistical sample of Market Participants	August 31, 2010	On target

"e" Factors

"e" Factors live in Market Trials	August 9	Complete
In MTs - updating "e" factors biweekly and as needed and monitor activity	Ongoing	Green
ERCOT performs and validates credit calculations for a statistical sample of Market Participants	August 31, 2010	On target

6. Nodal Credit Risk Profile and Status: CMM Status

Cheryl Yager

Process Readiness	Planned completion	Status
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CMM

Operating procedures	September 21, 2010	66% Complete and on target
Credit transition plan	July 30, 2010	Complete

"e" Factors

Operating procedure	September 21, 2010	66% Complete and on target
"e" Factors transition plan	April, 2010	Complete

6. Nodal Credit Risk Profile and Status: CMM Status

Cheryl Yager

People Readiness	Planned completion	Status
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CMM

ERCOT Staff Support of Market Trials	Ongoing	Green
ERCOT Staff Trained on Systems and Processes	Ongoing	80% complete and on target
Market Participant Training Delivered	5 Core Credit sessions	Complete

"e" Factors

ERCOT Staff Support of Market Trials	Ongoing	Green
ERCOT Staff Trained on Systems and Processes	Ongoing	80% complete and on target
Market Participant Training Delivered	August 10, 2010	Complete

6. Nodal Credit Risk Profile and Status: CMM Status

Cheryl Yager

Readiness Review and Approval	Planned completion
NATF Review	August - October 5
CWG Review Initial meeting to discuss - August 11th	August - October 8
Comparison of ERCOT market to other markets (per Mkt Reform's PJM study) as requested at July BOD meeting	September 21st F&A meeting
F&A Review	September 21st F&A Meeting
ERCOT Management Approval	by September 28
TAC Approval	October 7
F&A Review	October 19th F&A Meeting
BOD Approval	October 19
30 Day Market Notice	October 29
10 Day Market Notice	November 19
Go Live	December 1

6. Nodal Credit Risk Profile and Status: Risk Profile Cheryl Yager

- **At July F&A meeting, F&A members asked about**
 - The level of exposure in the ERCOT market
 - The risk profile of the ERCOT market in Nodal
 - The balance sheet impact (for ERCOT and the market) of Nodal credit
- **The following slides highlight**
 - Some Key Credit Risks in Nodal
 - Impact of an increase in ERCOT activity from the DAM

6. Nodal Credit Risk Profile and Status: Risk Profile – Some Key Credit Risks in Nodal

Risk	Description	Expected Nodal Impact
1 Probability of default for a Counter-Party (CP)	Risk that a CP will default (based on their financial strength)	Comparable to Zonal
2 Congestion Revenue Rights (CRRS)		
a Options	Risk that CP doesn't pay for the Option	Comparable to Zonal TCRs
b Obligations	Risk that CP doesn't pay for the instrument AND risk that an ongoing liability will be created	tbd. ERCOT holds an approximation of MTM based on recent historical prices to address this risk.
3 Market Price		
a Impact of gas prices	Risk that changes in gas prices will impact Nodal Real Time (RT) or Day Ahead Market (DAM) prices	Comparable to Zonal
b Impact of price volatility	Risk of prices remaining very high for an extended period of time	Comparable to Zonal for RT and tbd for DAM
4 CP volume escalation at default	<p>The risk that a CP (particularly one representing load), will increase its activity in the ERCOT market at the time of default</p> <p>Ex: Historical level of activity (basis for collateral) at 10% goes to 100% (90% escalation)</p>	<p>If a CP's ERCOT activity (and corresponding collateral) increases (combination of RT and DAM), it is possible that this risk will be reduced</p> <p>Ex: Historical level of activity (basis for collateral) at 40% goes to 100% (60% escalation)</p>

6. Nodal Credit Risk Profile and Status: Impact of an Increase in ERCOT Activity from the DAM

For the Counter-Party

- Reduces reliance on 3rd party bilateral contracts (or Energy trades) and
- Potentially reduces collateral posted with 3rd parties
- Increases collateral posted with ERCOT

For ERCOT

- Increases the level of collateral held by ERCOT
- Given an increase in the level of collateral, potentially reduces losses in the event of default

6. Nodal Credit Risk Profile and Status: Impact of an Increase in ERCOT Activity from the DAM (example)

Counter-Party representing load

	Mwh	Price	# of days Historical	# of days Forward	\$ Historical	\$ Forward	\$ Total	
1 Zonal market								
2 Estimated collateral posted								
3 3rd party - Bilaterals (Note 1)	9,000	\$ 50	14	14	6,300,000	6,300,000	12,600,000	
4								
5 ERCOT (Note 2)								
6 Real time	1,000	\$ 50	27	20	1,350,000	1,000,000	2,350,000	ERCOT
7								
8 Estimated total collateral posted by CP	<u>10,000</u>				<u>7,650,000</u>	<u>7,300,000</u>	<u>14,950,000</u>	
9								
10 Estimated exposure w/ default (Note 3)	10,000	\$ 60		9	1,350,000	5,400,000	<u>6,750,000</u>	
11 Estimated loss w/ default							<u>4,400,000</u>	ERCOT
12								
13								
14 Nodal market								
15 Estimated collateral posted								
16 3rd party - Energy Trades (Note 1)	5,000	\$ 50	14	14	3,500,000	3,500,000	7,000,000	
17								
18 ERCOT								
19 Day Ahead Market (Note 4)	4,000	\$ 50	5	14	1,000,000	2,800,000	3,800,000	
20 Real time (Note 2)	<u>1,000</u>	\$ 50	27	20	<u>1,350,000</u>	<u>1,000,000</u>	<u>2,350,000</u>	
21 Subtotal - ERCOT	5,000				2,350,000	3,800,000	6,150,000	ERCOT
22								
23 Estimated total collateral posted by CP	<u>10,000</u>				<u>5,850,000</u>	<u>7,300,000</u>	<u>13,150,000</u>	
24								
25 Potential increase / (decrease) in overall collateral requirements for a CP (Zonal to Nodal)					<u>(1,800,000)</u>	-	<u>(1,800,000)</u>	<Note 5
26								
27 Estimated exposure w/ default (Note 3)	10,000	\$ 60		9	2,350,000	5,400,000	<u>7,750,000</u>	
28 Estimated loss w/ default							<u>1,600,000</u>	ERCOT
29								
30 Potential increase / (decrease) in net loss in ERCOT from a CP default (Zonal to Nodal)							<u>(2,800,000)</u>	<Note 6

6. Nodal Credit Risk Profile and Status: Impact of DAM Activity on Potential Losses

NOTES

Note 1: CPs generally post collateral for exposure under Bilateral contracts (also Energy Trades). ERCOT has estimated the amount of collateral posted; however, this is indicative only.

Note 2: ERCOT collateral for BES or Real Time (RT) activity includes a "40 day" ADTE calculation. This includes approximately 20 days for unbilled activity and 20 days for forward risk. In addition, ERCOT generally has an invoice outstanding for 7 days of activity at any point in time. The approximately 47 days held for collateral are reflected here as 27 days historical and 20 days forward.

Note 3: At default, a CP representing load may incur around 9 days at 100% of load before ESI IDs are moved to the appropriate POLR (2 business days to post collateral, 2 business days to cure, 2 days weekend, 3 days to execute Mass Transition)

Note 4: ERCOT collateral for DAM activity includes a "16 day" DALE calculation. This includes approximately 2 days for unbilled activity and 14 days for forward risk. In addition, ERCOT expects to have invoices outstanding for somewhere between 3 -6 days of activity at any point in time. The total of 19 days held for collateral are reflected here as 5 days historical and 14 days forward.

Note 5: While a CP's collateral held by ERCOT for activity in the ERCOT market is expected to increase as a result of their increased activity, CPs will likely experience some level of offset as a result of a decrease in collateral posted for bilaterals. The degree of offset is not known and the net impact will vary by CP. Amounts included above are indicative only.

Note 6: Increased levels of collateral held at ERCOT as a result of overall higher levels of activity in the ERCOT market has the potential to reduce possible losses in default scenarios.

6. Nodal Credit Risk Profile and Status: Summary

Cheryl Yager

For Counter-Parties

Increased collateral posted with ERCOT as a result of increased ERCOT activity in the DAM will likely be offset to some degree by reduced collateral posting with 3rd parties. The degree of offset is not known and the net impact will vary by CP.

For the ERCOT market

Increased CP activity (and exposure) in the ERCOT market is expected to increase the level of collateral held by ERCOT and has the potential to decrease losses in the Nodal market

6. Nodal Credit Risk Profile and Status: “e” Factor update Cheryl Yager

- **NPRR 206 and “e” factors process**
 - “e” factor notices went out August 4th and “e” factors were loaded on August 9th
 - Market Participant training was held on August 10th
 - Continue to answer questions as they arise

7. Discussion of Market Credit Risk Standard Audit Requirement for 2010: Cheryl Yager

- With respect to the Potential Credit Risk model, the Market Credit Risk Standard requires that
 - internal controls over the portfolio credit risk analysis process be reviewed periodically by ERCOT's Internal Audit staff to monitor compliance with control procedures.
- Internal Audit has included an audit to meet this requirement in its 2010 audit plan
- At their July meeting, F&A members discussed whether or not an audit in 2010 would be beneficial given that the Zonal PCR model will not be utilized once Nodal is effective and the model will be updated for Nodal in the near future.
- ERCOT staff agrees that an audit of the Zonal PCR model would have limited use and recommends deferring an audit until the PCR model has been adapted for Nodal
- Seeking formal direction on whether to defer an audit on the PCR model until it has been converted for Nodal

8. Follow-up to Commissioner Anderson's Question Regarding Investment Risk and Diversification: Cheryl Yager

- **Strengthening ERCOT Investment Corporate Standard**
- **Investments at June 30, 2010 – Concentration by Bank**
- **Risk mitigations**
 - Rule 2a-7 changes
 - Fund management – repurchase agreements
- **Summary**
- **Questions**

8. Investment Risk and Diversification: Strengthening ERCOT Investment Corporate Standard

Topic	Current Standard	Prior Standard
Authorized Instruments	<ol style="list-style-type: none"> 1. Obligations of or guaranteed by the US government. 2. Repurchase agreements in which the collateral is obligations of or guaranteed by the US government. 3. Money market mutual funds invested only in obligations of or guaranteed by the US government or repurchase agreements in which the collateral is obligations of or guaranteed by the US government. 	<ol style="list-style-type: none"> 1. Obligations of or guaranteed by the US government. 2. Obligations of or guaranteed by other US governmental entities (e.g. federal agencies, state or municipal, etc). 3. Certificates of deposit and share certificates. 4. Repurchase agreements in which the collateral is government or agency securities. 5. Commercial paper. 6. Banker's acceptances. 7. Money market mutual funds.
Restrictions	<ol style="list-style-type: none"> 1. ERCOT must diversify investments held in money market accounts across at least four different fund families. 2. No more than 30% of investable funds will be maintained in any one fund. 3. No more than \$50 million will be maintained in any one fund. 	No restrictions
Credit Review	<p>Credit – To manage credit risk arising from investments, at least monthly ERCOT reviews underlying securities held as investments, including investments held through money market funds. Any credit related concerns not satisfactorily resolved with fund managers will result in movement of the investment to an alternative fund. ERCOT staff will not duplicate credit analysis performed by fund managers and are not expected to provide assurance that all holdings are creditworthy.</p>	No Credit Review Required

8. Investment Risk and Diversification: Investments at June 30, 2010 – Concentration by Bank

	Evergreen/Wells	Invesco	BlackRock	JPMorgan	Federated 68	Federated 125	Total Portfolio \$
	Fargo						
Repo 1-7 days or the right to terminate within 7 days	\$ portfolio	\$ portfolio	\$ portfolio	\$ portfolio	\$ portfolio	\$ portfolio	
Bank of America Sec LLC Repo	50,000,000	47,530,200	100,000,000	128,859,000			326,389,200
Barclays Capital Inc Repo	613,000,000	660,000,000	890,000,000	1,996,794,000	878,117,000		5,037,911,000
BMO Capital Markets Corp Repo		137,323,073			250,000,000		387,323,073
BNP Paribas Secs Corp Repo	567,050,000	200,000,000			2,129,000,000		2,896,050,000
CIBC World Markets Corp Repo		100,000,000			100,000,000		200,000,000
Citibank					290,000,000		290,000,000
Citigroup Global Markets Inc			385,000,000		400,000,000		785,000,000
Credit Agricole Securities Inc					2,900,000,000		2,900,000,000
Credit Suisse Secs USA Repo	210,000,000	500,000,000	560,000,000	500,000,000	2,510,000,000		4,280,000,000
Deutsche Bank Securities Repo	365,000,000	200,000,000	1,027,167,000		1,200,000,000		2,792,167,000
Goldman Sachs + Co Repo		700,000,000	75,495,000	67,430,000			842,925,000
HSBC USA Inc Repo	456,000,000		75,416,000				531,416,000
JP Morgan Securities Repo	280,000,000	282,452,171	103,623,000		309,819,000		975,894,171
Morgan Stanley + Co Repo	368,000,000	250,000,000	100,000,000				718,000,000
RBC Capital Markets Corp Repo		250,000,000					250,000,000
RBS Securities Inc Repo	614,000,000	700,000,000	235,000,000	1,000,000,000	1,246,000,000		3,795,000,000
Societe Generale Repo		100,000,000					100,000,000
State Street Bank + Tr Repo	105,000,000						105,000,000
TD Securities					1,000,000,000		1,000,000,000
UBS Securities LLC Repo	70,000,000		61,000,000	250,000,000	96,000,000		477,000,000
Wells Fargo Secs Repo		250,000,000					250,000,000
SubTotal	3,698,050,000	4,377,305,444	3,612,701,000	3,943,083,000	13,308,936,000		28,940,075,444
Term Repo 8-30 days							
Barclays Capital Inc Repo 7.12.10		500,000,000					500,000,000
BNP Paribas Secs Corp Repo 7.27.10		480,000,000					480,000,000
Deutsche Bank Securities Inc Repo 7.2.10		500,000,000					500,000,000
JP Morgan Secs Inc Repo 7.8.10		500,000,000					500,000,000
RBC Capital Markets Repo 7.12.10		500,000,000					500,000,000
RBS Securities Inc Repo 7.15.10 & 7.21.10			775,000,000				775,000,000
SubTotal		2,480,000,000	775,000,000				3,255,000,000
US Treasury Bill	402,985,126	7,615,000,000	2,875,056,692	9,165,816,507	1,500,122,584	12,430,422,459	33,989,403,368
US Treasury Note	90,132,022	55,000,000		1,753,822,403	2,204,026,023	7,278,477,565	11,381,458,013
SubTotal	493,117,148	7,670,000,000	2,875,056,692	10,919,638,910	3,704,148,607	19,708,900,024	45,370,861,381
Grand Total	4,191,167,148	14,527,305,444	7,262,757,692	14,862,721,910	17,013,084,607	19,708,900,024	77,565,936,825

8. Investment Risk and Diversification: Risk Mitigations

Cheryl Yager

Rule 2a-7 changes – Portfolio Liquidity

Topic	New or Amended Rules	Prior Rule
Daily Liquidity	For all taxable money market funds – 10% of assets must be in cash, U.S. Treasury securities, or securities that can be converted (mature) into cash within one day.	No minimum liquidity mandates.
Weekly Liquidity	For all money market funds (includes tax exempt) – 30% of assets must be in cash, U.S. Treasury securities, certain other government securities of 60 days or less, or securities that convert into cash within one week.	No minimum liquidity mandates.
Illiquid Securities	Restricts limit to 5% of assets and redefines illiquid as any security that cannot be sold or disposed of within 7 days at carrying value.	Limit of 10% of assets.
Periodic Stress Tests	Require fund managers to examine the fund's ability to maintain a stable NAV in the event of shocks such as interest rate changes, higher redemptions and changes in credit quality.	No Stress test requirements.
Know Your Investor Procedures	Funds need to develop procedures to identify investors whose redemption requests may pose risks to funds. Funds would need to anticipate the likelihood of large redemptions.	No KYC redemption risk requirements.

8. Investment Risk and Diversification: Risk Mitigations

Cheryl Yager

Rule 2a-7 changes – Portfolio Maturity

Topic	New or Amended Rules	Prior Rule
Weighted Average Maturity (WAM) Limits	Restricts WAM to 60 days	Limit WAM to 90 days.
Weighted Average Life (WAL) Limits	Restricts WAL to 120 days.	No limit on WAL mandate.

Portfolio Credit Quality

Topic	New or Amended Rules	Prior Rule
Rating Agencies	<p>Follow existing requirements and require funds to designate annually at least four NRSROs whose ratings the fund's board considers to be reliable.</p> <p>Eliminate the requirement of investing only in NRSRO-rated asset backed securities.</p>	Requires securities to be rated in the top two rating categories (or unrated securities of comparable quality) and require fund managers to perform independent credit analysis of every security purchased.
Second Tier Securities	<p>Restrict limit to 3% of assets.</p> <p>Limits exposure to any single second tier issuer to 0.50% of assets.</p> <p>Maturity limit of 45 days to any second tier security.</p>	<p>Limit of 5% of assets.</p> <p>Restrict exposure to any single second tier issuer to the greater of 1% or \$1 million.</p> <p>Limit of 397 days</p>
Repurchase Agreement Collateral	When using "look Through" provision, repo collateral must be limited to cash items or government securities. Require fund managers to perform credit analysis on repo counterparties.	Fund managers allowed to "look through" to the underlying collateral for all highly rated securities.

8. Investment Risk and Diversification: Risk Mitigations

Cheryl Yager

Fund management – repurchase agreements

Fund	% backed by Treasury	Third Party repository for collateral?	Is Collateral trued up daily?
Blackrock	102%	Yes	Yes
Evergreen/Wells Fargo	102%	Yes	Yes
Federated Fund 068	102%	Yes	Yes
Federated Fund 0125 (100% Treasuries)	N/A	N/A	N/A
Invesco	102%	Yes	Yes
JPMorgan	102%	Yes	Yes

8. Investment Risk and Diversification: Summary

Cheryl Yager

- **To seek to ensure the safety of funds**

- ERCOT

- Invests only in money market funds that invest in Treasury or Treasury-backed securities (repurchase agreements)
- Reviews underlying fund investments monthly

- The SEC

- Strengthened its requirements for money market funds

- Money market funds invest in repurchase (repo) agreements that are

- Backed by Treasuries (102% of repo)
- Held by third parties
- Short tenor (at June 30, 2010 – predominantly 1-7 days)
- Collateral is trued up daily

9. Review of First Priority Security Interest Agreement

Cheryl Yager/Chad Seely

- **Nodal Protocol Section 16.11.4.1, *Determination of Total Potential Exposure for a Counter-Party*, allows netting of the “mark to market” or forward value of CRRs with other credit exposure when a Counter-Party (CP) provides a first priority security interest (see exception below)**
 - Example:
 - Current activity = \$2,000
 - Future Credit Exposure (FCE) from CRRs = \$ (500)
 - Note: All activity within the “Current” component is net together and all the activity within the “FCE” component is net together.
 - With a First Priority Security Interest, ERCOT will collateralize at \$1,500, knowing that it has a right to receive the estimated \$500 in credit from FCE.
 - Without a First Priority Security Interest, ERCOT will collateralize at \$2,000.

Exception: Per Nodal Protocols, Electric Co-operatives or Texas Water Code compliant Counter-Parties may net without providing a First Priority Security Interest.

9. Review of First Priority Security Interest Agreement Cheryl Yager/Chad Seely

- **Without the first priority security interest, ERCOT cannot be assured that it has the right to any credits that may be net from exposure.**
 - Option 1: Another entity could already have a first priority security interest and have the right to the cash stream.
 - Option 2: No one else has a specific right – then ERCOT may have to fight for the credits in court.

9. Review of First Priority Security Interest Agreement Cheryl Yager/Chad Seely

- **Certain Key Components of Agreement**

- Collateral: “a present and continuing first priority security interest in and a first lien (the “First Priority Security Interest”) upon all of Debtor’s right, title, and interest **in any and all accounts receivables generated under and/or in connection with the Counter-Party Agreement and all current and future revenues** as described and defined in the ERCOT Nodal Protocols together
- Debtor agrees to pay Secured Party’s reasonable expenses incurred in action to preserve, perfect, defend, and enforce this Agreement or the Collateral and to collect or enforce the Obligations.
- Default/Breach and Remedies tie back to ERCOT Nodal Protocols and Counter-Party Agreement.

9. Review of First Priority Security Interest Agreement Cheryl Yager/Chad Seely

- **ERCOT incorporated most of the CP comments received in the first round in the current draft**
 - Circulated second working draft to market on August 6, 2010.
- **Next Steps**
 - August 23, 2010: Final comments back from CPs.
 - September 21, 2010: Final review and approval by F&A Committee and ERCOT Board.

FIRST PRIORITY SECURITY INTEREST AGREEMENT¹

Date: _____

Debtor: [COUNTER-PARTY ENTITY]

Debtor's Mailing Address: _____

Secured Party: ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC. (hereinafter "ERCOT" or "Secured Party")

Secured Party's Mailing Address: 7620 Metro Center Drive
Austin, Texas 78744

Collateral (including all accessions):

Pursuant to ERCOT Nodal Protocols² Section 16.11.4.1, *Determination of Total Potential Exposure for a Counter-Party*, as the same may be revised, amended, and supplemented from time to time and together with all replacements and substitutes thereto, Debtor hereby grants to ERCOT and its assignees, transferees, successors in interest, a present and continuing first priority security interest in and a first lien (the "First Priority Security Interest") upon all of Debtor's right, title, and interest in any and all accounts receivables generated under and/or in connection with the Counter-Party Agreement³ and all current and future revenues as described and defined in the ERCOT Nodal Protocols together with all of Debtor's right, title, and interest to any accounts, accounts receivables, credits,

¹ Hereinafter called the "Agreement".

² "ERCOT Nodal Protocols" shall mean the document adopted by ERCOT, including any attachments or exhibits referenced in that document, as may be amended from time to time, that contains the scheduling, operating, planning, reliability, and settlement (including customer registration) policies, rules, guidelines, procedures, standards, and criteria of ERCOT. For the purposes of determining responsibilities and rights at a given time, the ERCOT Nodal Protocols, as amended in accordance with the change procedure(s) described in the ERCOT Nodal Protocols, in effect at the time of the performance or non-performance of an action, shall govern with respect to that action.

³ Under the ERCOT Nodal Protocols, the Counter-Party Agreement is also known as the Standard Form Market Participant Agreement, entered into between said Counter-Party (i.e., Debtor) and ERCOT in order to establish the terms and conditions by which ERCOT and Counter-Party will discharge their respective duties and responsibilities under the ERCOT Protocols.

refunds, payments, rebates, revenues, set-off rights, and all other rights to payment of whatever kind or nature arising out of or related to the Counter-Party Agreement whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter existing, including all products and proceeds of the foregoing, and any and all renewals, extensions, replacements, modifications, additions, and substitutions of the foregoing and all rights, remedies, claims, and demands under and/or in connection with each of the foregoing (the “Collateral”).

Obligation Secured (hereinafter the “Obligation” or “Obligations”):

The First Priority Security Interest granted herein by Debtor to Secured Party shall secure the payment and performance of all of Debtor’s obligations pursuant to the ERCOT Nodal Protocols and the payment and performance of any and all other liabilities and obligations of Debtor to Secured Party of every kind and nature, whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter existing, including, without limitation, all costs and expenses to enforce the obligations of the Debtor and collect all amounts owed to the Secured Party including attorney’s fees and expenses.

Other debt/future advances: The First Priority Security Interest granted herein also secures all other present and future debts and liabilities of Debtor to Secured Party, including future advances and including, but not limited to, any and all other debt and any advances made pursuant to the ERCOT Nodal Protocols and/or any other agreement.

A. Debtor represents and warrants the following:

1. No financing statement covering the Collateral is filed in any public office except any financing statement in favor of Secured Party.
2. Debtor owns the Collateral and has the authority to grant this First Priority Security Interest, free from any setoff, claim, restriction, security interest, or encumbrance except liens for taxes not yet due and liens imposed by law in connection with worker’s compensation, unemployment insurance and types of social security (in each case, if applicable) (hereinafter “Permitted Liens”).
3. The Collateral has not been pledged to any other person or entity and the First Priority Security Interest granted herein is a legal and valid, first priority security interest in the Collateral.
4. None of the Collateral is an accession to any goods, is commingled with other goods, or will become an accession or part of a product or mass with other goods except as provided in this Agreement.
5. All information about Debtor's financial condition is or will be accurate when provided to Secured Party.

6. None of the Collateral is affixed to real estate.

7. Debtor is a _____ organized under the laws of the State of _____ and Debtor will notify Secured Party in writing of any change to Debtor's name, state of organization, or entity status, in accordance with Section B.4 below.

8. The Debtor's place of business is _____ and Debtor will notify Secured Party in writing of any change to Debtor's place of business, in accordance with Section B.4 below.

9. The Debtor's execution of this Agreement is a condition precedent to, and made in consideration of, Secured Party granting Debtor credit pursuant to the ERCOT Nodal Protocols

10. Debtor has received adequate consideration for the execution of this Agreement the receipt of which is hereby acknowledged by virtue of the execution of this Agreement.

11. The Debtor is authorized to execute this Agreement and the person signing this Agreement on behalf of Debtor is authorized to do so.

B. Debtor agrees to:

1. Defend the Collateral against all claims adverse to Secured Party's interest; keep the Collateral free from liens, except for liens in favor of Secured Party or Permitted Liens; keep the Collateral in Debtor's possession and ownership except as otherwise provided in this Agreement; maintain the Collateral in good condition; and protect the Collateral against waste, except for ordinary wear and tear.

2. If requested, reimburse Secured Party's reasonable expenses incurred in the initial filing related to this Agreement (a copy of which will be provided by Secured Party to Debtor)

3. Pay Secured Party's reasonable expenses incurred in any action to preserve, perfect, defend, and enforce this Agreement or the Collateral and to collect or enforce the Obligations. These expenses will bear interest from the date of advance until paid at the maximum lawful rate for matured, unpaid amounts and are payable on demand at the place where the Obligation is payable. These expenses and interest will become part of the Obligation and will be secured by this Agreement.

4. Take any other action and sign and deliver any other documents that Secured Party, acting in a commercially reasonable manner, considers necessary to obtain, maintain, and perfect this First Priority Security Interest.

5. Notify Secured Party promptly of any material change in the Collateral; change in Debtor's name, address, or location; change in any warranty or representation in this Agreement; change that may affect this First Priority Security Interest; and any event of default. Written

notification regarding the Debtor's change of name, address, location, or jurisdiction shall be provided to Secured Party by Debtor at least thirty (30) days prior to the effective date of such change.

6. Maintain accurate records of the Collateral; furnish Secured Party any requested information related to the Collateral; and allow Secured Party to inspect and copy all records relating to the Collateral during Debtor's normal business hours.

7. Allow Secured Party to inspect the Collateral.

C. Debtor agrees not to:

1. Sell, dispose, encumber, or in any way transfer any of the Collateral without the prior written consent of the Secured Party, except in the ordinary course of Debtor's business.

2. Except as permitted in this Agreement, permit the Collateral to be affixed to any real estate, to become an accession to any goods, to be commingled, or to become a fixture, accession, or part of a product or mass with other goods.

D. Default/Breach and Remedies

1. Debtor shall be in default (or breach) if, after having been given any required notice, the Debtor:

a. fails to comply with or perform any of the Debtor's obligations under the ERCOT Nodal Protocols, the Counter-Party Agreement, this Agreement, or any other agreement between Secured Party and Debtor;

b. fails to timely pay or perform any obligation or covenant in any written agreement between Debtor and Secured Party or any default in payment by Debtor to Secured Party per the Obligation referenced above;

c. makes any false warranty, covenant, or representation to Secured Party in connection with this Agreement, in connection with any other agreement with Secured Party, or under the ERCOT Nodal Protocols;

d. has a receiver appointed for Debtor or any of the Collateral;

e. assigns the Collateral for the benefit of creditors;

f. to the extent permitted by law, has bankruptcy or insolvency proceedings commenced against or by any of the following parties: Debtor; any partnership of which Debtor is a general partner; or any maker, drawer, acceptor, endorser, guarantor, surety, accommodation party, or other person liable on or for any part of the Obligation;

g. the dissolution of any of the following parties: Debtor; any partnership of which Debtor is a general partner; or any maker, drawer, acceptor, endorser, guarantor, surety, accommodation party, or other person liable on or for any part of the Obligation; and

h. permits the impairment of any of the Collateral by loss, theft, damage, or destruction, unless it is promptly replaced with collateral of like kind and quality or restored to its former condition.

2. Upon default/breach and at any time thereafter, Secured Party may:

a. demand, collect, convert, redeem, settle, compromise, receipt for, realize on, sue for, setoff, net, and adjust the Collateral either in Secured Party's or Debtor's name, as Secured Party desires, or take control of any proceeds of the Collateral and apply the proceeds against the Obligation;

b. declare the unpaid principal and earned interest of the Obligations immediately due in whole or part;

c. enforce the Obligation; and/or

d. exercise any rights and remedies granted by law, this Agreement or ERCOT Nodal Protocols.

3. Foreclosure of this First Priority Security Interest by suit does not limit Secured Party's remedies under any other applicable law, including the right to sell the Collateral under the terms of this Agreement or the Uniform Commercial Code. Secured Party may exercise all remedies at the same or different times, and no remedy is a defense to any other. Secured Party's rights and remedies include all those granted by law and those specified in this Agreement.

4. Secured Party's delay, partial exercise, or failure to exercise any of its remedies or rights does not waive Secured Party's rights to subsequently exercise those remedies or rights. Secured Party's waiver of any default does not waive any further default by Debtor. Secured Party's waiver of any right in this Agreement or of any default is binding only if it is in writing. Secured Party may remedy any default without waiving it.

5. If the Collateral is sold after default, recitals in the bill of sale or transfer will be prima facie evidence of their truth, and all prerequisites to the sale specified by this Agreement and by law will be presumed satisfied.

E. General

1. Secured Party may at any time:

a. discharge taxes, liens or other encumbrances at any time levied or placed on the Collateral and any payment or expenses incurred by Secured Party for the same shall be

immediately reimbursed by Debtor; and

b. file a financing statement or file any other document (including a copy of this Agreement), or take any other action, necessary to obtain, maintain, and/or perfect the Security Interest.

2. Notice is reasonable if it is mailed in accordance with the Counter-Party Agreement to Debtor at Debtor's Mailing Address at least ten (10) days before any public sale or ten (10) days before the time when the Collateral may be otherwise disposed of without further notice to Debtor.

3. This First Priority Security Interest will neither affect nor be affected by any other security for any of the Obligation. Neither extensions of any of the Obligation nor releases of any of the Collateral will affect the priority or validity of this First Priority Security Interest.

4. This Agreement binds, benefits, and may be enforced by the heirs, executors, administrators, successors in interest, and/or assigns of the parties, except as otherwise provided. Assignment of any part of the Obligation and Secured Party's delivery of any part of the Collateral will fully discharge Secured Party from responsibility for that part of the Collateral.

5. This Agreement may be amended only by an instrument in writing signed by Secured Party and Debtor.

6. The unenforceability of any provision of this Agreement will not affect the enforceability or validity of any other provision.

7. This Agreement shall be construed according to Texas law. This Agreement is performed in Travis County, Texas. Venue for any disputes related to this Agreement shall be in the state and/or federal courts in Travis County, Texas.

8. Interest on the Obligation secured by this Agreement will not exceed the maximum amount of nonusurious interest that may be contracted for, taken, reserved, charged, or received under law. Any interest in excess of that maximum amount will be credited on the principal of the Obligation or, if that has been paid, refunded. On any acceleration or required or permitted prepayment, any such excess will be canceled automatically as of the acceleration or prepayment or, if already paid, credited on the principal of the Obligation or, if the principal of the Obligation has been paid, refunded. This provision overrides any conflicting provisions in this and all other instruments concerning the Obligation.

9. In no event may this Agreement secure payment of any debt subject to title IV of the Texas Finance Code or create a lien otherwise prohibited by law.

10. When the context requires, singular nouns and pronouns include the plural.

11. The term *Obligation* includes all extensions and renewals of the Obligation and

all amounts secured by the Obligation.

12. If Debtor and any party executing any document evidencing the Obligation are not the same person, the term *Debtor* includes the party executing the document evidencing the Obligation.

13. Debtor represents that this Agreement is given for commercial purposes.

14. This Agreement is entered into in accordance with, and subject to, the ERCOT Nodal Protocols as may be amended from time to time. To the extent there is a conflict between this Agreement and the ERCOT Nodal Protocols, the ERCOT Nodal Protocols shall control.

15. This Agreement (and each amendment, modification, and waiver in respect of it) may be executed and delivered in counterparts (including by electronic or facsimile transmission) each of which shall be deemed to be an original.

DEBTOR:

[COUNTER-PARTY ENTITY]

By: _____
Its: _____

SECURED PARTY

ERCOT

By: _____
Its: _____

SUBSCRIBED AND SWORN TO before me by the above parties on this ____ day of _____.

Notary Public, State of Texas

Q&A only

ERCOT Market Credit Status

as of 6/30/2010

as of 7/31/2010

Exposure in the ERCOT Market (owed to ERCOT)

QSEs that meet ERCOT Creditworthiness Standards

Ratings over BBB-

QSEs that do not meet ERCOT Creditworthiness Standards

Ratings below BBB- or not rated

Cash & Letters of Credit

Guarantee Agreements

Total Exposure

Other QSEs in the ERCOT Market (ERCOT owes)

QSEs that meet ERCOT Creditworthiness Standards

Ratings over BBB-

QSEs that do not meet ERCOT Creditworthiness Standards

Ratings below BBB- or not rated

Cash & Letters of Credit

Guarantee Agreements

Total

	# of QSEs*	Estimated Aggregate Liability (\$)	% of EAL	Total Unsec Credit Limit / Security Posted		# of QSEs*	Estimated Aggregate Liability (\$)	% of EAL	Total Unsec Credit Limit / Security Posted	
Exposure in the ERCOT Market (owed to ERCOT)										
<u>QSEs that meet ERCOT Creditworthiness Standards</u>										
Ratings over BBB-	11	45,002,892	13%	160,121,991	U	12	44,102,613	11%	177,788,772	U
<u>QSEs that do not meet ERCOT Creditworthiness Standards</u>										
Ratings below BBB- or not rated										
Cash & Letters of Credit	46	142,904,235	41%	371,889,940	S	49	163,163,643	42%	319,760,936	S
Guarantee Agreements	21	157,007,746	46%	497,637,400	S	21	184,777,701	47%	447,624,868	S
Total Exposure	78	344,914,872	100%			82	392,043,958	100%		
Other QSEs in the ERCOT Market (ERCOT owes)										
<u>QSEs that meet ERCOT Creditworthiness Standards</u>										
Ratings over BBB-	7	(3,039,033)	-6%	60,066,437	U	6	(1,878,622)	-3%	42,399,656	U
<u>QSEs that do not meet ERCOT Creditworthiness Standards</u>										
Ratings below BBB- or not rated										
Cash & Letters of Credit	73	(33,466,016)	-67%	27,557,799	S	70	(48,527,577)	-74%	94,159,126	S
Guarantee Agreements	8	(13,630,611)	-27%	94,702,000	S	8	(15,479,399)	-24%	84,702,000	S
Total	88	(50,135,660)	-100%			84	(65,885,598)	-100%		

Total

166

166

U: For QSEs that meet ERCOT's Creditworthiness Standards, amount of unsecured credit granted.

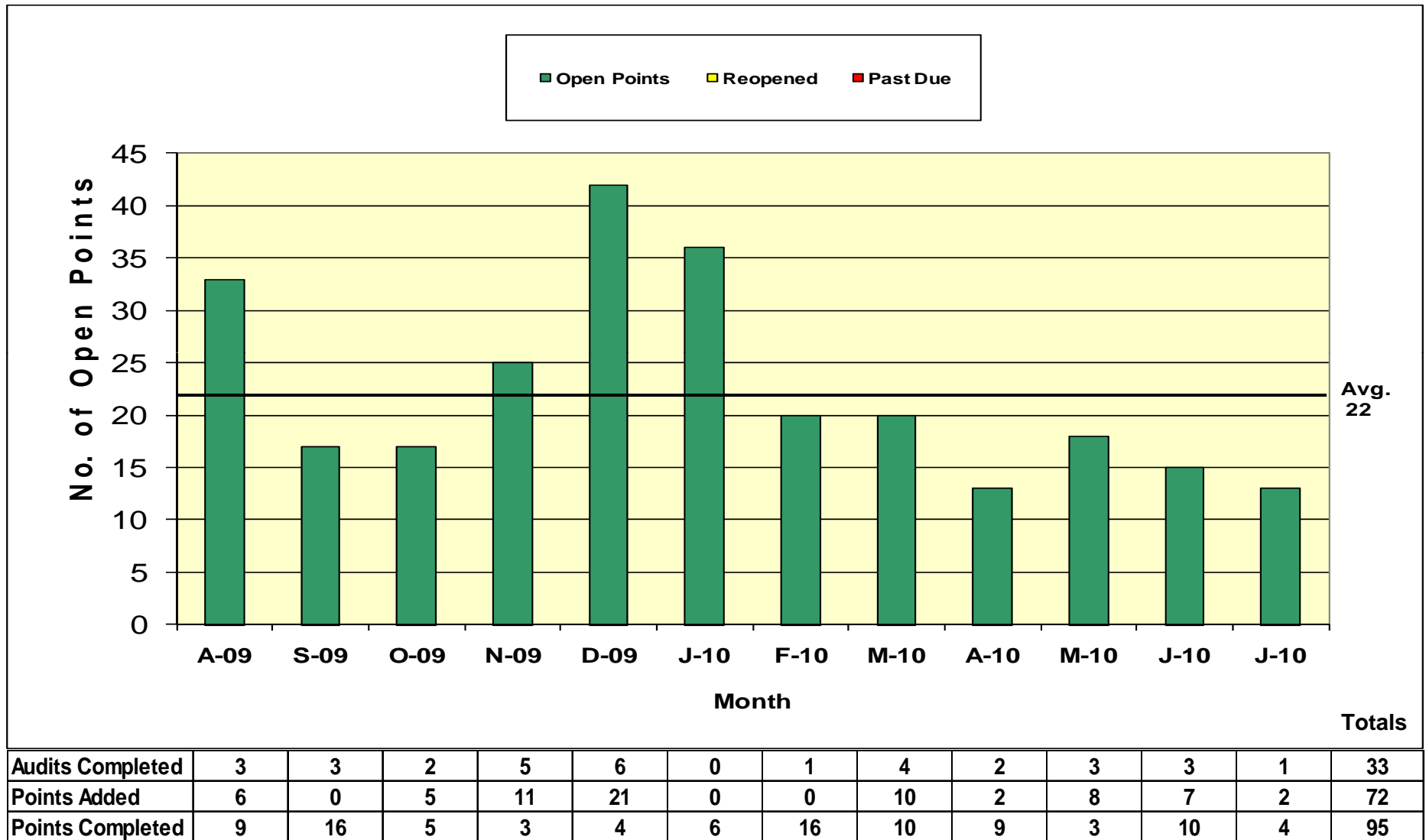
S: For QSEs that do not meet ERCOT's Creditworthiness Standards, amount of Security posted.

Note 1: Guarantee Agreements provided to meet a QSE's collateral requirements by entities that meet ERCOT's Creditworthiness Standards.

Guarantee Agreements provided to meet financial statement requirements by entities that do not meet ERCOT's Creditworthiness Standards are not included on this schedule.

10. Committee Brief: ICMP – Status of Open Audit Points

Cheryl Moseley



All audit points except 2 are expected to be complete by 1/15/11.

10. Committee Brief: ICMP – Audits Cheryl Moseley

Audits Completed

(last 3 months)

Internal Audits

- Protocol 1.4 Required Audit – Confidentiality
- Q1 2010 Fraud Auditing
- Protocol 1.4 Required Audit – Independence Verification
- Payroll
- HR Key Controls & Payroll-related Controls
- Vendor Assessments (Targeted Review)

External Audits

- 2009 Financial Audit (Ernst & Young, LLP)

Open Audits

Internal Audits

- Nodal Program Spending (Part 1 of 2)
- Patch Management and Server Hardening
- Cash and Investments
- Q2 Fraud Auditing
- Pre-Audit Testing for 2011 Nodal SAS70 Audit
- IT Access Management
- Nodal Program Reporting (Special Request)

External Audits

- 2010 Zonal SAS70 Audit (SAS70 Solutions, Inc.)
- 2010 Benefit Plan Audit (Maxwell, Locke & Ritter)

Planned Audits

(next 3 months)

Internal Audits

- Protocol 1.4 Required Audit – Ethics
- Employee & Contract Worker Ethics
- Nodal Program Spending (Part 2 of 2)
- Software License Management (Special Request)
- Outage Coordination
- Q3 2010 Fraud Auditing

External Audits



10. Committee Brief: ICMP – Security Assessments

Cheryl Moseley

Consultation/Analysis Reports Completed

(last 3 months)

Assessments

- External Assessment of Nodal Systems
- Internal Assessment of Cyber Vulnerability

Open Consultation/ Analysis Reviews

Assessments

Planned Consultation/ Analysis Reviews

(next 3 months)

Assessments

- 2 Assessments planned in Q3 & Q4

ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
RISK MANAGEMENT EVENT PROFILE MATRIX (as of August 1, 2010)

Strategic	Operational Excellence	Market Facilitation	Grid Reliability	Reporting	Legal and Regulatory Compliance
Strategy Development Corporate objective setting adequately incorporates informed stakeholder input, market realities and management expertise.	Performance Monitoring Clearly defined and actively monitored performance metrics linked to mission and goals - Performance status communicated and corrective action taken.	Customer Choice Market design promotes efficient choice by customers of energy providers with effective mechanisms to change incumbent market participants as desired.	Grid Operations Information required to operate the grid is efficiently gathered. Appropriate tools are prudently configured to efficiently operate the system.	Review Practices Prudent measures are taken to insure that company disclosures are properly vetted and not misleading.	Legal & Legislative Operations are conducted in compliance with all laws and regulations. Impacts of current and proposed legislation are understood and communicated.
Mission and Goals Corporate objectives and performance standards are understood and followed.	Business Practices Business planning, processes and management standards are effective and efficient.	Nodal Implementation Project Nodal Implementation on budget on schedule, and within defined scope.	Planning Long-range planning methods enable efficient responses to system changes that are necessary to maintain reliability standards.	Disclosure Reporting and other disclosures to intended parties is timely, accurate and effective.	Internal Control Compliance Internal Control Compliance processes and management standards are effective, efficient, and provide stakeholders with required assurances of quality.
Efforts to define the planning process for completing the 2011 budget are underway. Using the Market Reform assessment, we are reviewing the competencies needed to operate ERCOT through 3 different stages, readiness/go live, stabilization, steady state. This analysis will define the organization requirements and associated budgets needed for 2011 and 2012.		Full market trials functionality testing continues. 24-hr LFC test completed in early August. TAC has signed off on 30-day readiness notices for Outage Scheduling and CRR market. Metrics for evaluating September 168-hr test to be presented to Board in August. Reporting support for DAM / RUC / SASM continues to be upgraded.	Demand for planning studies exceeds ERCOT's ability to perform them. ERCOT has received two awards totaling \$3.5 million to produce long-term resource and transmission planning studies in 2011. Hiring is completed. In the scoping phase of the studies. Project completion 2013.		Efforts underway to streamline and increase the effectiveness of ERCOT's internal controls program and integrate it with the company's Enterprise Risk Management program.
Reputation Positive perceptions by stakeholders lead to less cost and greater flexibility resulting in enhanced enterprise value.	Workforce Organization design, managerial and technical skills, bench strength and reward systems aligned with corporate goals.	Counterparty Credit Maintain credit risk exposure for overall market within acceptable limits.	Bulk System Resources Market Participants construct and make available adequate bulk electric grid resources.	Communication Internal & external communications are timely and effective.	Industry Standards Business and operational activities are in compliance with all applicable regulatory, financial and accounting requirements, standards and directives.
ERCOT addressing reputation issues by 1) refocusing communication efforts, 2) continuing to complete Nodal on time and on budget, 3) preparing a well thought out budget for 2011, and 4) increasing accountability.	Moving forward with Skillssoft to provide web based e-learning programs, with the goal to have the on line services available to all ERCOT employees in Q4. Talent Management identification has been completed. We are ready to move forward with succession planning and training initiatives once the new organization is put in place.	Credit risk reflected by the PFE model has been fairly consistent over the past year. Color remains yellow pending the review of risk factors (e.g. counterparty probabilities of default, impact of new markets and instruments, collateral levels, price volatility) in the Nodal market requested by F&A.	In its State of the Market report, the IMM concludes that 2009 wholesale prices were substantially below the levels required to support new natural gas generation resources within ERCOT ▲, but expects improved long-term pricing signals from the nodal market ▼.		Still waiting for the final 2009 NERC audit report for the Critical Infrastructure Protection (CIP) portion. For 2010 NERC Audit, ERCOT was found to be fully compliant on the 693 (O/P) standards. CIP status is not determined at this point
Fiscal Management ISO design requires competent, prudent and cost effective provision of services.	Technology Infrastructure Information systems, supporting facilities and data are effectively managed and are reliable.	Administration, Settlement & Billing Market rules fairly applied to all participants. Accounting is timely and accurately reflects electricity production and delivery.	Operational Responsibility Market participant conduct their operations in a manner which facilitates consistent grid reliability.	Adequacy and Integrity Robust processes exist to support management assertions embodied within financial reports.	Regulatory Filings Evidence, testimony and other supporting materials are compelling and successful.
ERCOT is currently forecasting a year-end positive budget variance around \$9.0 million.	Systems stable. Sufficient system and computer room capacity exist for Nodal 'go-live'. Austin data center capacity near maximum and may not be able to accommodate additional unforeseen expansion prior to switchover to Bastrop. Capacity requirements are being closely monitored.		There is still a lack of consensus over reactive power and frequency response requirements to existing wind generation resources. However, RTWG brought a draft of the Texas Renewables Integration Plan (TRIP) to TAC in August.		

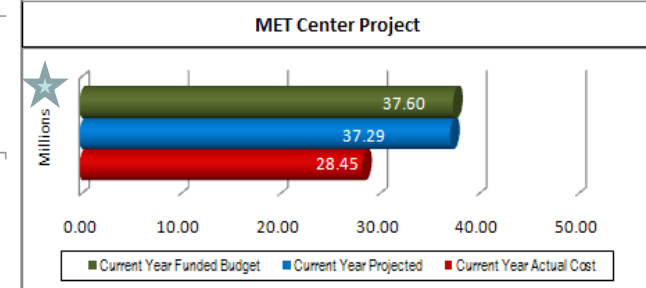
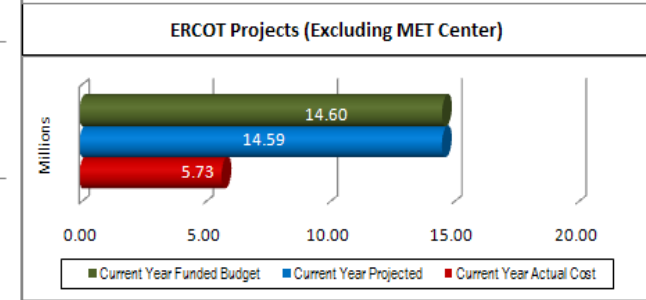
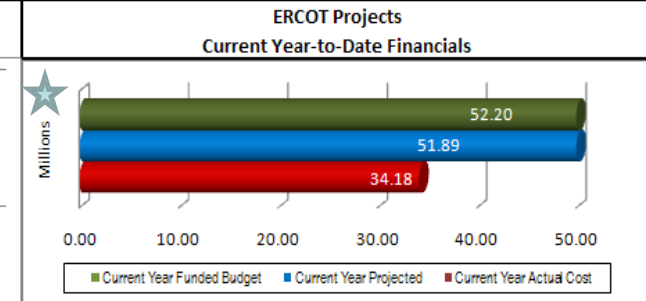
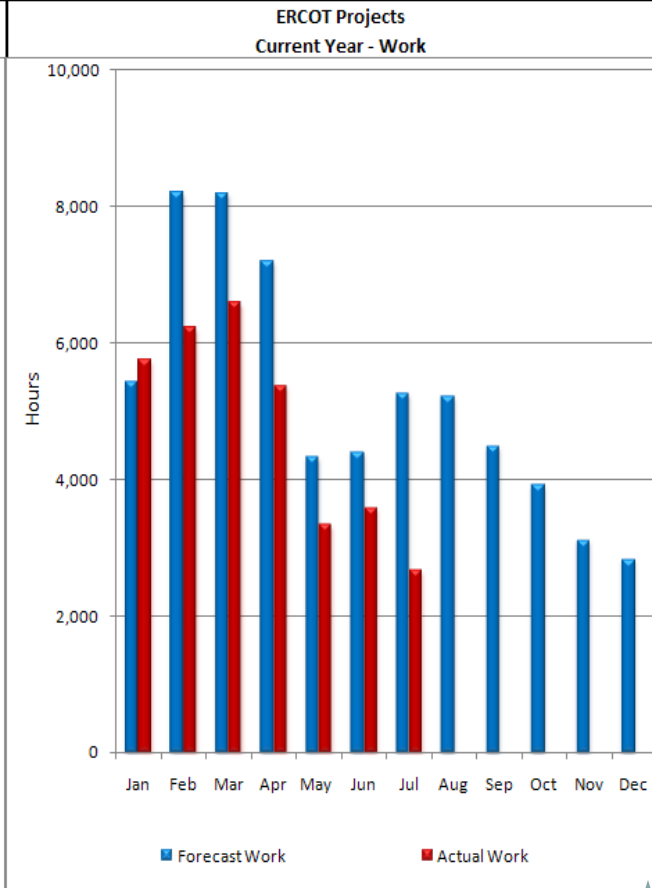
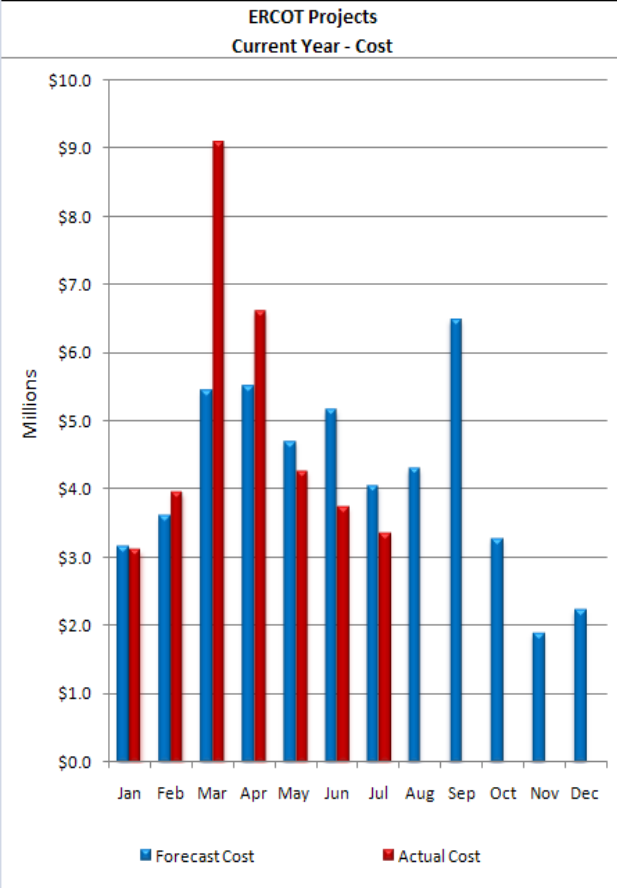
Legend: Elevated Risk Level Reduced Risk Level

(New Risk Categories / Descriptions Indicated in Green)

10. Committee Brief: PMO David Troxtell

ERCOT Enterprise Projects Summary Report

ERCOT		Overall Projects Report					Reporting Period: 7/31/2010	
Projects in ERCOT's Portfolio							Portfolio Performance	
Deferred	Concept	On Hold	Initiation	Planning	Execution	Closing	Schedule	Budget
0	1	1	1	6	15	2	Green	Green
			Closed	Total Active		25		
			Cancelled	Projects Not Started		0	Current Year Funded Budget: \$52,200,000	



★ Includes \$5.9M carry-over funds from 2009 for MET Center. Page 8 of 68



ERCOT
Summary of Investments
July 31, 2010

(\$ in 000s)

<u>Investment Account</u>	<u>BlackRock</u> <i>Treasury and Repo</i>	<u>Evergreen 497</u> <i>Treasury and Repo</i>	<u>Federated 068</u> <i>Treasury and Repo</i>	<u>Federated 0125</u> <i>Treasury only</i>	<u>Invesco</u> <i>Treasury and Repo</i>	<u>JPMorgan</u> <i>Treasury and Repo</i>	<u>Subtotal</u>
Operating	\$ -	\$ -	\$ 5	\$ -	\$ -	\$ 7,251	\$ 7,256
Market	276	498	109	15	193	2,589	\$ 3,680
Deposit/Restricted	30,541	37,870	12,882	23,001	31,012	6,554	\$ 141,860
Total	<u>30,817</u>	<u>38,368</u>	<u>12,996</u>	<u>23,016</u>	<u>31,205</u>	<u>16,394</u>	<u>\$ 152,796</u>
% Investments:	20%	25%	9%	15%	20%	11%	100%
Other cash net of outstanding checks							<u>\$ (3,077)</u>
Total cash and cash equivalents							<u>\$ 149,719</u>

Future Agenda Items – September 2010

- **Standing Internal Audit agenda items**
- **Review assumptions and preliminary schedules for the 2011 annual operating budget**
- **Approval of the First Priority Security document**
- **Annual review of Committee Charter and structure**
- **Review results of and vote on acceptance of 2008 401(k) audit report**
- **Standing Nodal Credit Status**
- **Review of investment strategy**
- **Committee briefs**
- **Future agenda items**

11. Future Agenda Items: F&A 2010 Yearly Schedule

Mike Petterson

Quarter 1

- √ •Elect officers and confirm financial qualifications
- √ •Vote on CWG Chair/Vice Chair

Quarter 2

- √•Report results of annual independent audit to the Board
- √•Review the procedures for handling Reporting violations
- √•Review results of annual audit, together with significant accounting policies (including required communications)
- √•Review operating plan and budget assumptions
- √•Review and approve Internal Audit Department Charter
- √•Conduct annual review of insurance coverage(s)
- √•Review the Company's dealings with any financial institutions that are also market participants
- √•Review the Market Credit Risk Corporate Standard

Quarter 3

- Appoint the independent auditors for upcoming year
- Approval of independent auditor fees for upcoming year
- Review of committee charter
- Assessment of compliance, the internal control environment and systems of internal controls
- Report by CWG Chair on ERCOT credit policy

Quarter 4

- Approve audit committee meeting planner for the upcoming year, confirm mutual expectations with management and the auditors
- Review and approval of Financial & Investment Corporate Standards
- Review and approval of annual operating budget
- Approve scope of internal auditing plan for upcoming year
- Assessment of the adequacy and effectiveness of the Internal Audit staff
- Perform Finance & Audit committee Self Assessment
- Review requirements for membership in CWG
- Review and approve CWG charter
- Review the Company's dealings with any financial institutions that are also market participants
- Review scope of annual financial audit
- Review of external auditor quality control procedures and independence

Recurring Items

- Review minutes of previous meeting
- Report monthly matters to the Board (chair)
- Review EthicsPoint activity
- Review significant audit findings and status relative to annual audit plan
- Review investment results quarterly

12. Other Business

Mike Petterson
