



ERCOT Finance & Audit Committee Meeting

7620 Metro Center Drive, Austin, Texas

Met Center, Conference Room 206

July 20, 2010; 8:00am – 9:55am*

Item #	Agenda Item Type	Description/Purpose/Action Required	Presenter	Time
1.		Call to order Executive Session	C. Karnei	8:00am
2.		2a. Announcement of proxies	C. Karnei	8:01am
	Decision required	2b. Approval of executive session minutes (Vote) (6/15/10)	C. Karnei	8:02am
	For discussion	2c. Internal Audit status report	B. Wullenjohn	8:05am
	For discussion	2d. Mid-year update on 2010 Internal Audit plan	B. Wullenjohn	8:15am
	Informative	2e. EthicsPoint update	B. Wullenjohn	8:20am
	For discussion	2f. Quarterly private discussion with Chief Audit Executive	B. Wullenjohn	8:25am
3.	Informative	Contracts, personnel, litigation and security	Various	8:35am
		Recess Executive Session		8:40am
		Convene General Session		
4.	Decision required	Approval of general session minutes (Vote) (06/15/10)	C. Karnei	8:40am
5.	For discussion	Review assumptions for preparation of the 2011 annual operating budget	M. Petterson	8:42am
6.	Informative	Quarterly investment review	L. Swanson	9:10am
7.	Informative	Credit briefing – Potential Credit Risk	C. Yager	9:15am
8.	Informative	Nodal Credit Status	C. Yager	9:30am
9.	Informative	Committee Briefs (Q&A only)	All	9:40am
10.	Informative	Future agenda items	M. Petterson	9:45am
11.		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, August 17, 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 06/15/10

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

7620 Metro Center Drive (Room 206) – Austin, Texas 78744
June 15, 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 **8:02 a.m.** The Committee immediately went into Executive Session, where it remained until it recessed and reconvened in General Session at **9:10 a.m.**

Committee members:

Crowder, Calvin	American Electric Power Service Corporation	Investor Owned Utility	Present
Dreyfus, Mark	Austin Energy	Municipal	Not Present
Espinosa, Miguel (Vice Chair)	Unaffiliated Board Member	Unaffiliated Board Member	Present
Fehrenbach, Nick	City of Dallas	Commercial Consumers	Present
Gent, Michehl	Unaffiliated Board Member	Unaffiliated Board Member	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:

Beckham, Rebecca	ERCOT – Senior Financial Analyst
Brandt, Adrienne	Austin Energy
Burke, Tom	ACES Power Marketing
Cleary, Mike	Chief Operating Officer
Clemenhausen, Barbara	Topaz Power Management
Day, Betty	ERCOT – Director, Commercial Operations
Doggett, Trip	ERCOT – Interim President and Chief Executive Officer
Donohoo, Ken	Oncor
Forfia, David	ERCOT – Director, Informational Technology Infrastructure
Fox, Kip	AEP
Greer, Clayton	Morgan Stanley
Hancock, Misti	ERCOT – Manager, Budget and Financial Analysis
Jones, Brad	Luminant
Kolodziej, Eddie	Customized Energy Solutions
Lester, Suzanne	ERCOT – Executive Assistant, Finance
Manning, Charles	ERCOT – Vice President and Chief Compliance Officer
Morehead, Juliana	ERCOT – Associate Corporate Counsel
Morgan, Richard	ERCOT – Vice President and Chief Information Officer

Petterson, Mike	ERCOT – Controller
Pieniazek, Adrian	NRG Texas
Roberts, Grady	ERCOT – Director, Contract Administration and Procurement
Stephenson, Randa	Luminant
Swanson, Leslie	ERCOT – Manager, Treasury (Contractor)
Teixeira, Jay	ERCOT – Manager, Seasonal Planning
Wagner, Marguerite	PSEG Texas
Ulici, Naomi	ERCOT – Learning Specialist
Wolff, Freddy	ERCOT – Manager, Accounting and Financial Reporting
Wullenjohn, Bill	ERCOT – Director, Internal Audit
Yager, Cheryl	ERCOT – Treasurer

Announcement of Proxies

Chairman Clifton Karnei confirmed that a quorum was present and that he held the proxy for Mr. Dreyfus.

Approval of Prior Meeting General Session Minutes

Chairman Karnei asked for a motion to approve the May 18, 2010 General Session F&A Committee meeting minutes.

Miguel Espinosa moved to approve the minutes for the General Session of the Committee meeting held on May 18, 2010. Calvin Crowder seconded the motion. The motion passed unanimously with no abstentions.

Approval of the Debt Financing Proposal

Mr. Karnei noted that the Committee discussed various proposals and options relating to debt financing during Executive Session. He then entertained a motion for approval of Debt Financing Option 1.

Miguel Espinosa moved to approve Debt Financing Option 1 as recommended in Executive Session. Calvin Crowder seconded the motion. The motion passed unanimously with no abstentions.

Review of the Procedures for Handling Financial Reporting Violations

Mike Petterson directed the Committee to materials provided prior to the meeting, and noted highlighted sections of the Committee Charter, which specified the Committee's responsibilities concerning financial statement reporting, accounting, internal controls, and auditing issues. Mr. Karnei noted that according to Charter language the Committee's reporting responsibilities appeared limited to financial-type items, rather than reporting on all types of violations.

Preparation of the 2011 Budget

Mike Petterson noted the informative nature of the 2011 Budget preparation discussion, and reviewed ERCOT's schedule for preparing the budget. He noted the greatest challenges facing the budget preparation were issues relating to the transition from a Zonal market to a Nodal market (i.e., operational and financial challenges). Two key focuses in preparation for the 2011

Budget were efficiency of service and cost control, in addition to looking at options to keep fees at the current level, Mr. Petterson added. Discussion regarding fees followed. Mr. Petterson commented that the estimated need for an additional \$55 million over the 2010 Budget to perform at the same service levels with Nodal was a worst-case scenario, which assumed that all costs in ERCOT at current would roll into base operations. In concluding, he informed the Committee that ERCOT expected to have the assumptions around the 2011 Budget and preliminary numbers ready for Committee presentation in August 2010, aiming for Board approval in November 2010. Mr. Clearly emphasized the need for Committee communication to the Board throughout the planning process, as to allow for the understanding of issues related to figures in the 2011 Budget. Mr. Crowder inquired as to whether the Committee could get a preview of the assumptions at the July 2010 Committee meeting, to which Mr. Petterson responded in the affirmative.

Texas Regional Entity Financial Summary

Misti Hancock presented the Texas Regional Entity ("TRE") Financial Summary to the Committee. She noted July 1, 2010 marks the divestiture date between ERCOT and TRE, upon which time ERCOT would substantially remove all assets and retained earnings related to TRE from ERCOT's financial books. She also informed the Committee upon the divestiture date, ERCOT would begin terminating TRE employees. Moreover, Ernst & Young would be performing a six-month-end financial statement audit as of June 30, 2010, and Ms. Hancock stated that ERCOT expects minimal impact to its financial statements (i.e., less than one (1) percent on each of the three primary balance sheet categories: \$4.8 million in assets; \$4.3 million in liabilities; and approximately \$500,000 in retained earnings). The Committee and Ms. Hancock then discussed the types of assets and liabilities involved. Chad Seely briefed the Committee on the state of contract negotiations with TRE concerning Protocol/Operating Guide services to be provided for the remainder of 2010 (e.g., Protocol/Operating Guide compliance audits, investigation of Protocol/Operating Guide violations, etc.). Mr. Seely informed the Committee that ERCOT would have a contract in place with TRE for these services beginning July 1, 2010 through the end of 2010, during which time the PUC would decide whether TRE would continue to perform such services in 2011.

Parent Guarantees for Financial Institutions

Clayton Greer with Morgan Stanley informed the Committee that ERCOT was operating with a standard form parent guarantee, which some banks could not execute. The Committee, Mr. Greer, and Mr. Seely discussed options for making modifications to the guarantee that could accommodate those banks' concerns. Following a lengthy discussion about the history of the current guarantee, and options for revisions thereto, the Committee recommended that the Credit Working Group perform a preliminary review of the document.

Committee Briefs

Procurement Card (PCard) Update

Mr. Espinosa excused himself from the room during the PCard Update. Mr. Petterson advised the Committee that the PCard's usage had grown, and its efficiency and compliance had strengthened. Mr. Petterson recommended that ERCOT increase the transactional dollar limits from \$1,000 to \$5,000 to increase efficiency because the increase would reduce the number of purchase orders and checks cut per month by about 50%. He further noted that ERCOT's risk was minimal and ERCOT planned to periodically audit or spot-check the Program. The

Committee expressed no concerns with increasing in the limit from \$1,000 per transaction to \$5,000 per transaction.

Future Agenda Items

The following items were identified as future agenda items:

1. Standing Internal Audit agenda items
2. Discussion of IRS Form 990 filing
3. Update on annual Operating Budget
4. Credit Briefing – Potential Future Risk (YE 2009)
5. Update on assumptions in preparation of the 2011 Budget
6. Review of Investment Strategy
7. Committee Briefs
8. Future Agenda Items

Other Business

None.

Adjournment

Mr. Karnei adjourned the meeting at approximately **9:52 a.m.**

Juliana Morehead
Associate Corporate Counsel

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

- **Resource requirement assumptions addressed today**
- **Rate design assumptions will be addressed at a future meeting**

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

2010

2011

2012

2013

2014

2015

2016

Steady-state, Base Operations

Staffing + Hardware and Software Systems + Facilities + Financing + Special Arrangements

Projects

Nodal
implementation

Nodal
stabilization

Organizational transformation

Data center
construction

Data center
relocation

Land
acquisition

Campus construction

Settlement systems
rewrite

Retail systems
modification

IT computer
control center

TCC - console
replacement

Hardware projects to replace or upgrade systems

Software projects to address defects and provide enhancements

Other capital projects

ERCOT resource requirements may be considered as two categories:

1. Steady-state base operational resource requirements
2. Resource requirements relating to project initiatives.

Project resource requirements are expected to cover total project costs and there should be minimal, if any, project resources included in steady-state base operations.

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

- **Assumptions regarding resources required for steady-state base operations can be grouped into five categories:**
 - Staffing
 - Hardware and software systems
 - Facilities
 - Financing
 - Special arrangements

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

- **Staffing: Full-time equivalent levels**
 - Base operations and maintenance FTE levels
 - Determined and justified by capabilities and services
 - Organizational assessment recommendations serve as the starting point
 - Steady-state base operations attained in 2012
 - Project-related FTE levels are in addition to those required for base operations
 - Overall decline from current FTE levels

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

- **Staffing: Compensation**

- Salaries are based upon market conditions to retain and attract high-level employees
- Benefits are evaluated against market comparables and are consistent with programs used by ERCOT in 2010
- Annual merit increases are consistent with the market and are awarded based upon individual performance

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

- **Staffing: Other**

- Performance management programs assure increasing quality and skills of employees
- Recruitment and relocation programs are maintained to attract high achievers
- Severance benefits may be made available when job loss is not performance related
- An employee reward and recognition program is funded

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

- **Hardware and Software Systems**

- Nodal systems architecture, data bases, and processing infrastructure are more complex than current zonal systems
- Hardware and software system costs, previously covered by the Nodal Program, become base operating costs
- Dedicated, technical resources from critical-application vendors have been contracted
 - ABB (MMS)
 - Alstom-Areva (EMS)
 - Nexant (CRR)
 - Siemens (NMMS)
- Nodal architecture remains as deployed

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

- **Facilities**

- Operate and maintain three campuses in 2011
 - System Operations Control Center moves from Met Center to Bastrop in 2011
 - Met Center can be vacated no sooner than mid-2012
 - Operating cost implications include leases, utilities, telecommunications, security, maintenance, property taxes, and insurance
- Consolidate onto two campuses by 2013
 - Consolidation costs included as a project
- Complete a long-term campus strategy in 2011
 - Extend through 2011 the option to buy additional land in Bastrop County
 - Cover acquisition of the Bastrop County land (assumed in 2012) and subsequent building construction costs in projects

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

- **Financing**

- Continue policy of funding 40 percent of project expenditures with current revenue
- Continue practice of matching debt repayment terms to the useful life of the assets acquired or constructed

5. Review Assumptions for Preparation of the 2011 Annual Operating Budget: Mike Petterson

- **Special Arrangements**

- Fund operation of the Independent Market Monitor
- Fund costs of protocol and operating guide compliance audits performed by Texas Reliability Entity, Inc
- Collect and remit to NERC the NERC assessment of the ERCOT region

6. Quarterly Investment Review

Leslie Swanson

- **Summary of investment results attached as separate document**
- **Detailed listing of holdings will be provided as a supplemental distribution at the Committee meeting**

Electric Reliability Council of Texas, Inc.
Summary of Investment Results
Second Quarter 2010
(in 000's)

Investment Funds	Balance at June 30	Average Bal for Qtr	Interest 2nd Qtr	Yield 2nd Qtr Avg	Yield End of 2nd Qtr	% of portfolio at June 30	Detailed Fund Holdings
BlackRock Institutional T-Fund (60) MMF (Note 1)	30,816	32,661	2	0.02%	0.01%	17%	Attachment A
Evergreen Fund 497 Institutional Treasury MMF (Note 1)	38,367	35,094	1	0.01%	0.01%	21%	Attachment B
Federated Fund 068 Treasury Obligations Fund (Note 1)	24,994	24,156	1	0.01%	0.01%	14%	Attachment C
Federated Fund 0125 US Treasury Cash Reserves Fund (Note 1)	23,016	13,949	0	0.00%	0.00%	13%	Attachment D
Invesco Institutional Treasury Portfolio (Note 1)	33,425	32,883	4	0.05%	0.02%	18%	Attachment E
JP Morgan Chase US Treasury Plus MM Fund (Note 1)	31,530	37,717	3	0.03%	0.01%	17%	Attachment F
Sub-Total	182,148	176,460	11			100%	
Other cash net of outstanding checks (Note 2)	1,265						
Total cash and cash equivalents (est)	183,413	176,460	11			100%	

Benchmark data (Note 3)

Four Week T-Bill:	0.17%
Other open relevant Treasury MMFs:	0.01% (Range: 0.00% - 0.02%)

Notes

Note 1: In compliance with the Investment Corporate Standard, this fund invests solely in Treasury or Treasury-backed securities.

Note 2: All other cash, net of outstanding checks, held by ERCOT in bank accounts as of June 30, 2010.

Note 3: Benchmark data obtained as of June 30, 2010 for T-Bills and for comparable funds for which quotes are periodically obtained. Funds not currently open for investment are not included in range. Note that due diligence has not been performed on funds included in the benchmark and included funds may not meet ERCOT investment standards.

Note 4: No individual securities held as of June, 2010.

Statement of Compliance

Upon a review of the investment activity for the 3 month period ended June 30, 2010, I have no knowledge of any ERCOT action that does not comply with that required by the Investment Corporate Standard.

Signature on File

Cheryl Yager, Treasurer

7. Credit Briefing – Potential Credit Risk: Overview

Cheryl Yager

- **Base Case & Current Case**
- **7 and 12 Month Analyses**
- **Summary Results**
- **Summary of Most Common Outcomes – Base Case (7-Month Period)**
- **Extreme Events – Base Case (7-Month Period)**
- **Comparisons – Base Case**
- **What Has Changed – FYE 2009 (12-Month Period)**
- **Current Case Simulations**
- **Comparison of Results Over Multiple Periods (12-Month Period)**
- **Appendix**
 - **Summary of Most Common Outcomes – Base Case (12-Month Period)**
 - **Extreme Events – Base Case (12-Month Period)**

Two cases are represented:

Base Case

- Does not include current collateral held by ERCOT
- Fundamental assumption for this case deems collateral balances to be at least consistent with current protocols until a default occurs
- Unless otherwise indicated, this case is represented in all slides since it represents what ERCOT can enforce per existing Protocols

Current Case

- Uses current levels and forms of collateral for each QSE held by ERCOT at Time₀ at a minimum (Beginning of simulated period)
- Assumes some degree of overcollateralization will be maintained until a default occurs, i.e. the resulting loss distribution is lower

For FYE-2009, Potential Credit Risk results have been prepared for:

- 7-month period, representing from May 1, 2010 to November 30, 2010 (Dec. 1, 2010 is Nodal Go-live); and
- 12-month period (For comparison to previous results of the PCR Model)

While the impact of various model factors changed...

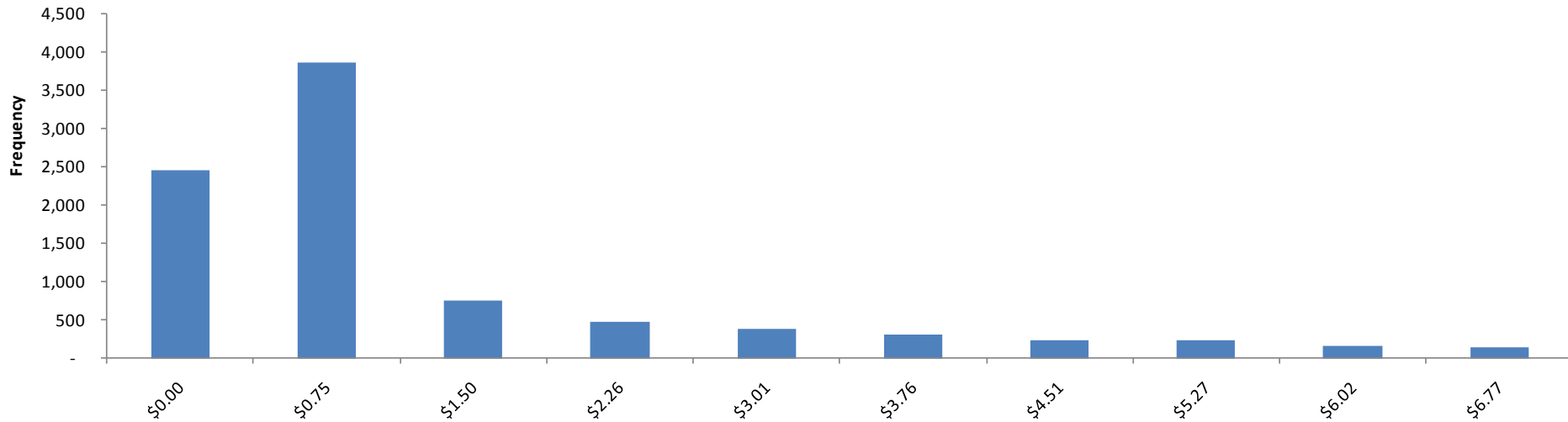
Base case residual credit risk remains comparable to the previous level reported for Q3-2009

- Changes in QSE factors have increased risk
- Effect – risk has increased slightly up to 99% confidence level and decreased for tail events

Current case residual credit risk also remains comparable to the previous level reported for Q3-2009

7. Credit Briefing – Potential Credit Risk: Summary of Most Common Outcomes – Base Case (7-Month Period)

Histogram of losses - Base Case showing 9,000 of 10,000 simulations

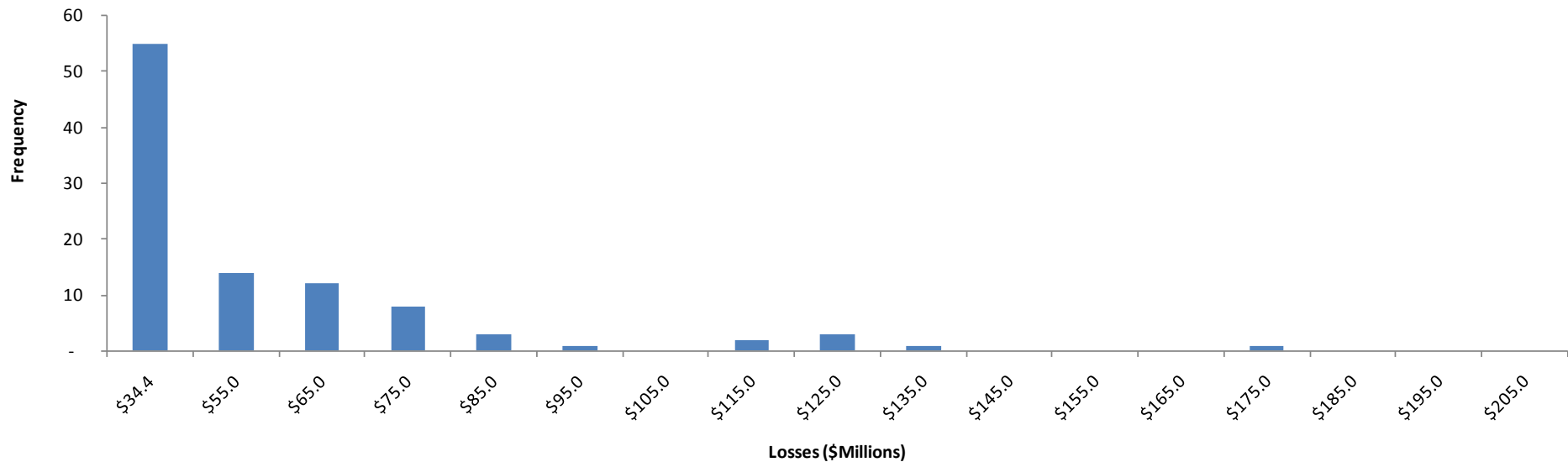


- Histogram above shows the number of simulations with credit losses less than or equal to **\$6.8** million dollars
- Losses of less than **\$750,000** are the most common results
 - Over 24% (2,477) of simulations had no losses, either from no defaults or defaults with adequate collateral
 - Over 75% of simulations resulted in losses of less than or equal to approximately **\$2.3** million
 - Results assume that market conditions and QSE credit ratings in place at the time of the simulation continue to be relatively unchanged over the next **seven** months
- The Expected Loss across all simulations is approximately **\$2.6** million
 - The Expected Loss does not represent “the most common outcome”, but the long-run average across all outcomes
- Typical characteristic of this simulation - **heavily skewed to the right, showing extreme losses to be very rare**

7. Credit Briefing – Potential Credit Risk: Extreme Events – Base Case (7-Month Period)

Base Case – Highest Loss Simulations

Highest Loss Simulations (Tail Risk)

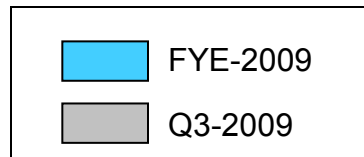
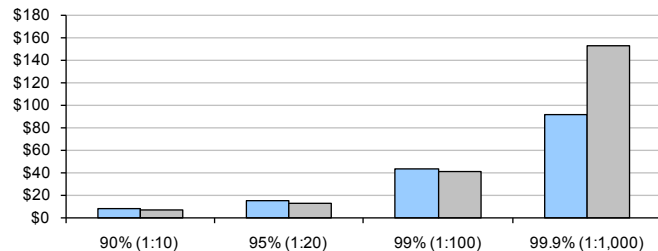


- Histogram above shows the largest 100 loss simulations.
- This graph represents Tail Risk, a.k.a. “Extreme Events”.
- These 100 simulations resulted in losses equal to or in excess of \$34.4 million.
- At 99% confidence, losses are **\$34.4 million**.
- At 99.9% confidence, losses are **\$86.5 million**.

7. Credit Briefing – Potential Credit Risk: Comparisons – Base Case Cheryl Yager

Simulations using FYE-2009 and Q3-2009 Financials

Potential Credit Loss - Base Case
(\$Millions)



Horizon (in days)
Simulations

Total defaults
 Simulations with defaults
 Simulations without defaults
 Default simulations with zero loss
 Total simulations with zero loss

(\$Millions)

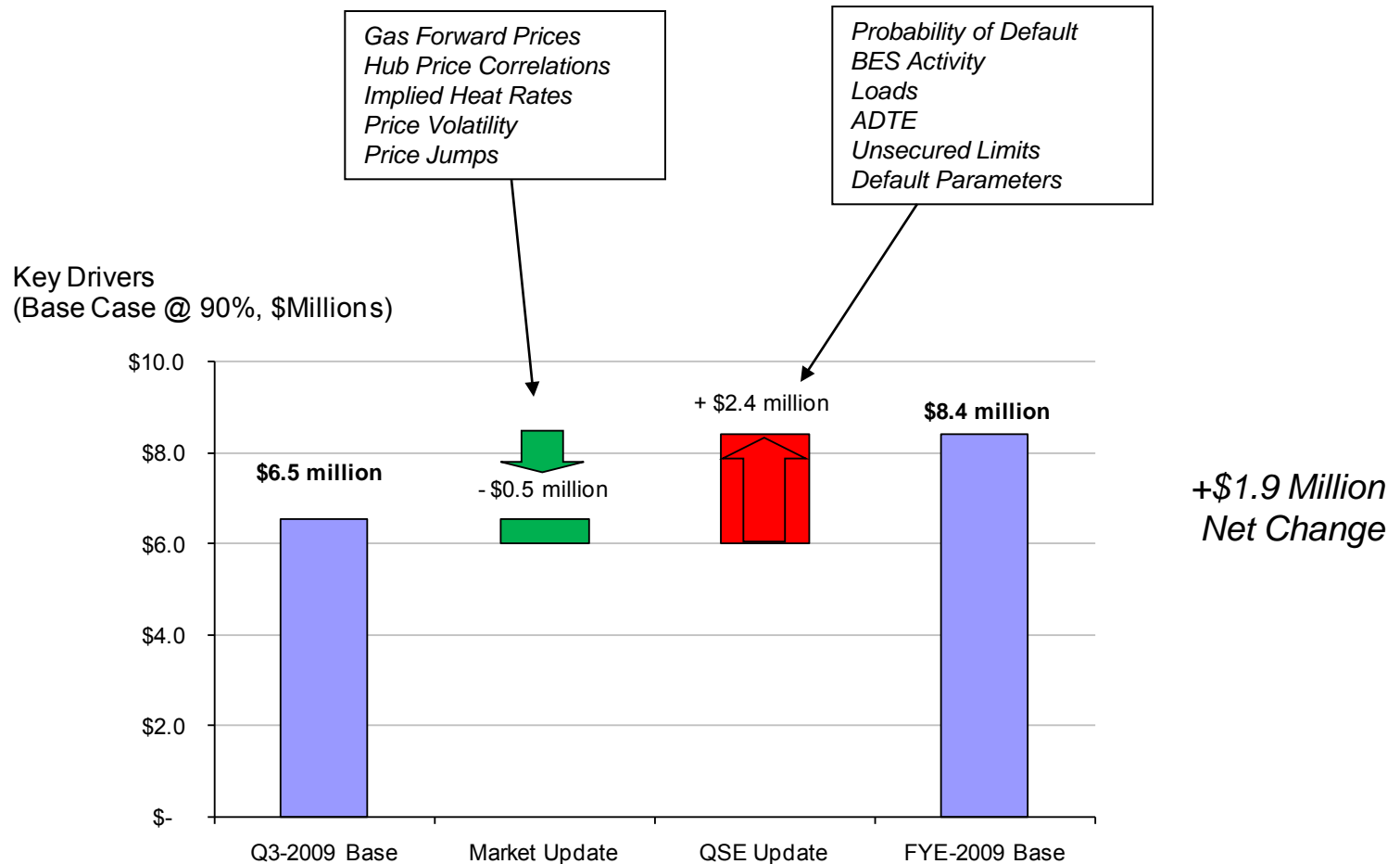
Expected Loss
 Median (1:2)

90% (1:10)
 95% (1:20)
 99% (1:100)
 99.9% (1:1,000)
 Max (1:10,000)

FYE-2009	FYE-2009	Q3-2009
Base Case	Base Case	Base Case
214	365	365
10,000	10,000	10,000
58,849	59,362	44,782
9,741	9,775	9,546
259	225	454
2,218	2,087	3,670
2,477	2,312	4,124
Expected Loss	\$2.6	\$3.2
Median (1:2)	\$0.2	\$0.3
90% (1:10)	\$6.8	\$8.4
95% (1:20)	\$11.7	\$15.4
99% (1:100)	\$34.3	\$43.6
99.9% (1:1,000)	\$86.5	\$92.2
Max (1:10,000)	\$180.9	\$153.3
		\$304.0

7. Credit Briefing – Potential Credit Risk: What Has Changed – FYE 2009 (12-Month Period)

(US\$ Millions, 90% confidence)



7. Credit Briefing – Potential Credit Risk: Current Case Simulations

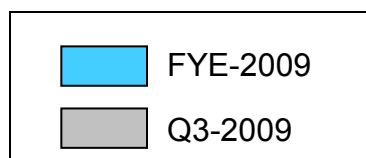
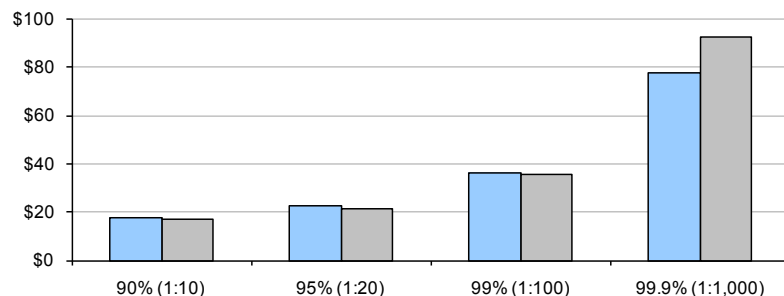
Cheryl Yager

- **Uses current levels and forms of collateral by QSE, at a minimum, held by ERCOT at Time₀**
- **ERCOT uses Group Logic to determine QSE Probability of Default (“PD”)**
 - This approach applies a combination of the QSE’s PD and the Parent’s PD, resulting in a PD between the QSE’s and Parent’s PD based on the strength of the relationship between the QSE and the Parent
 - Implies some level of support from a parent regardless of whether a guarantee is in place or not
 - This approach assumes that a QSE default occurs separately from a parent default, and that a guarantee has value as collateral
- **Credit Working Group (CWG) requested to see a different approach applied to the Current Case (Guarantor PD approach)**
 - Recognize the acceptance of a guarantee as granting unsecured credit rather than as collateral
 - Set QSE’s PD equal to the Parent’s PD when a parent guarantee is in place for a strategic subsidiary (and use Group Logic when no guarantee is in place or when guarantee is for a nonstrategic subsidiary)
 - This approach assumes that a QSE will only default when the guarantor defaults

7. Credit Briefing – Potential Credit Risk: Current Case Simulations – Comparison – Group Logic

Simulations using FYE-2009 and Q3-2009 Financials

Potential Credit Loss - Current Case
(\$Millions)



Horizon (in days)
Simulations

Total defaults
 Simulations with defaults
 Simulations without defaults
 Default simulations with zero loss
 Total simulations with zero loss

(\$Millions)

Expected Loss
 Median (1:2)

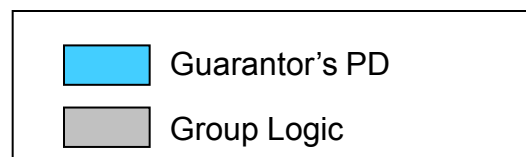
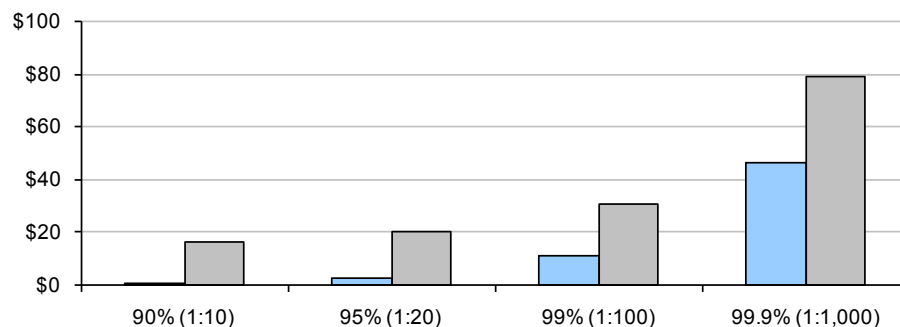
90% (1:10)
 95% (1:20)
 99% (1:100)
 99.9% (1:1,000)
 Max (1:10,000)

FYE-2009	FYE-2009	Q3-2009
Current Case	Current Case	Current Case
214	365	365
10,000	10,000	10,000
58,979	58,845	44,014
9,732	9,721	9,539
268	279	461
2,082	1,938	3,195
2,350	2,217	3,656
Expected Loss	\$4.8	\$5.4
Median (1:2)	\$0.3	\$0.4
90% (1:10)	\$16.2	\$17.7
95% (1:20)	\$20.0	\$22.6
99% (1:100)	\$30.7	\$36.3
99.9% (1:1,000)	\$79.1	\$78.1
Max (1:10,000)	\$212.2	\$133.0
		\$204.4

7. Credit Briefing – Potential Credit Risk: Current Case Simulations – Comparison – Guarantor's PD to Group Logic (7-Month Period)

Simulations using FYE-2009 and Q3-2009 Financials

Potential Credit Loss - Current Case
(\$Millions)



Horizon (in days)
Simulations

Total defaults
Simulations with defaults
Simulations without defaults
Default simulations with zero loss
Total simulations with zero loss

(\$Millions)
Expected Loss
Median (1:2)

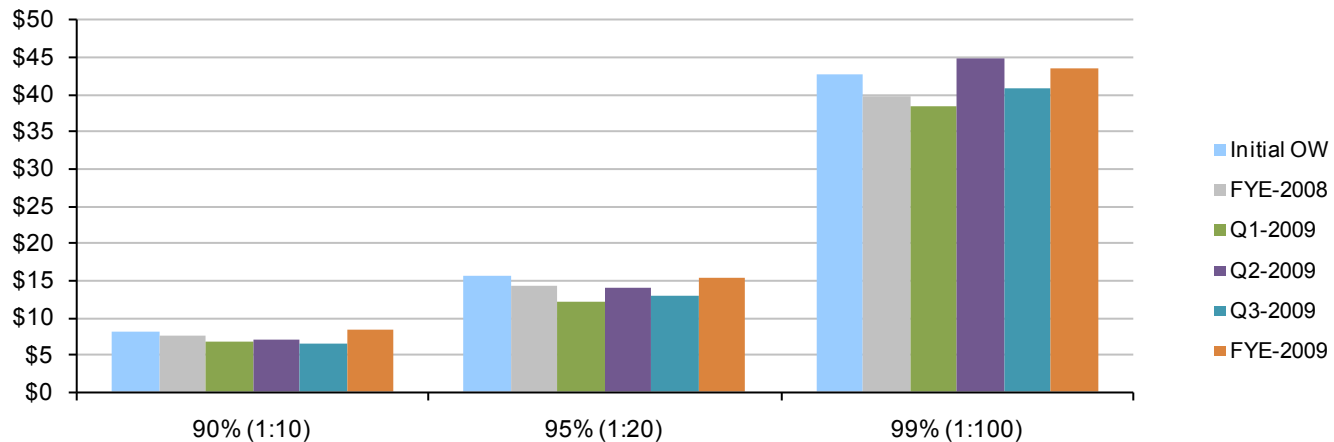
90% (1:10)
95% (1:20)
99% (1:100)
99.9% (1:1,000)
Max (1:10,000)

Guarantor's PD	Group Logic
Current Case	Current Case
214	214
10,000	10,000
33,991	58,979
9,029	9,732
971	268
2,889	2,082
3,860	2,350
\$0.6	\$4.8
\$0.0	\$0.3
\$0.7	\$16.2
\$2.9	\$20.0
\$11.0	\$30.7
\$46.5	\$79.1
\$128.7	\$212.2

7. Credit Briefing – Potential Credit Risk: Comparison of Results Over Multiple Periods *(12-Month Period)*

- **The Potential Credit Risk Model demonstrates consistent levels of risk over multiple periods**
- **Results impacted by offsetting influences**
 - For example, between the initial OW results and the FYE-2008 results, market prices decreased while market participant risk increased

Potential Credit Loss - Base Case
(\$Millions)



7. Credit Briefing – Potential Credit Risk: Questions

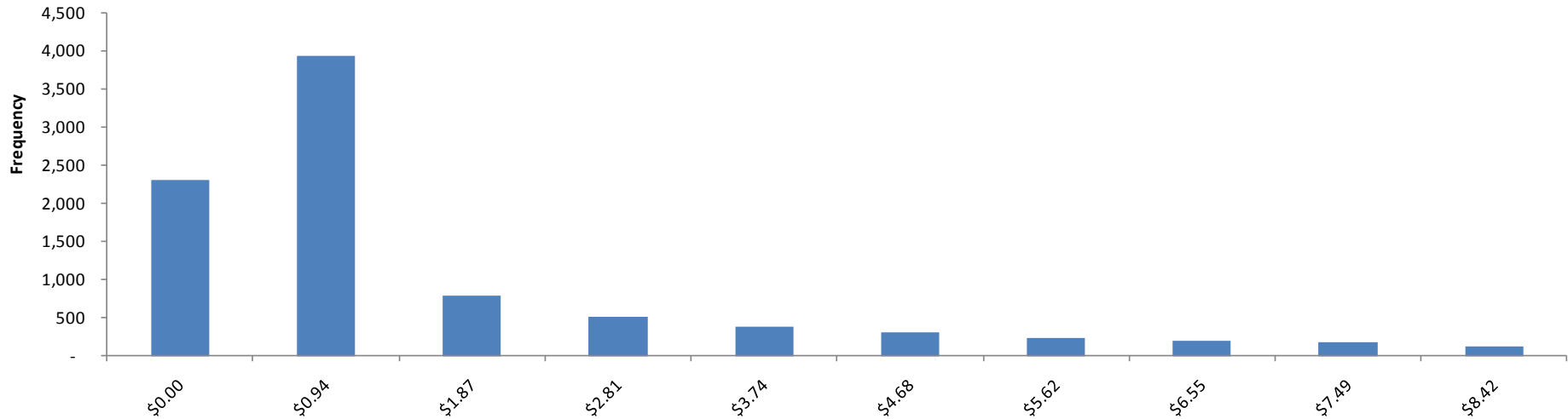
Cheryl Yager

- **Questions**

Appendix

7. Credit Briefing – Potential Credit Risk: Summary of Most Common Outcomes – Base Case (12-Month Period)

Histogram of losses - Base Case showing 9,000 of 10,000 simulations

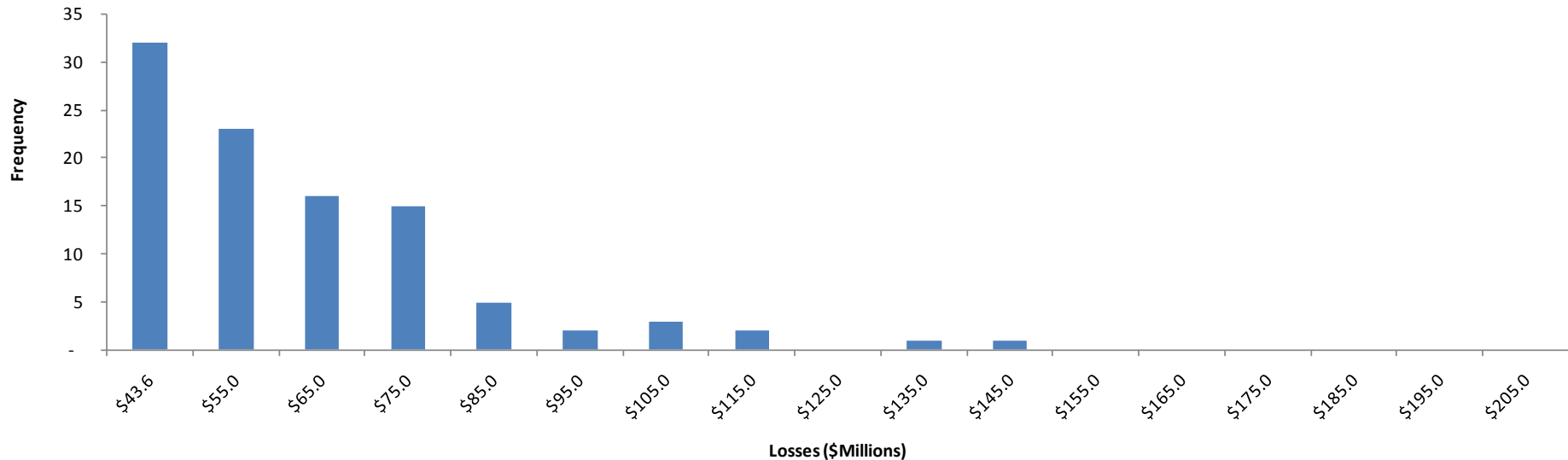


- Histogram above shows the number of simulations with credit losses less than or equal to **\$8.4** million dollars
- Losses of less than **\$940,000** are the most common results
 - Over 23% (2,312) of simulations had no losses, either from no defaults or defaults with adequate collateral
 - Over 75% of simulations resulted in losses of less than or equal to approximately **\$2.8** million
 - Results assume that market conditions and QSE credit ratings in place at the time of the simulation continue to be relatively unchanged over the next year
 - The Expected Loss across all simulations is approximately \$3.2 million
 - The Expected Loss does not represent “the most common outcome”, but the long-run average across all outcomes
- Typical characteristic of this simulation - **heavily skewed to the right, showing extreme losses to be very rare**

7. Credit Briefing – Potential Credit Risk: Extreme Events – Base Case (12-Month Period)

Base Case – Highest Loss Simulations

Highest Loss Simulations (Tail Risk)



- Histogram above shows the largest 100 loss simulations.
- This graph represents Tail Risk, a.k.a. “Extreme Events”.
- These 100 simulations resulted in losses equal to or in excess of \$43.6 million.
- At 99% confidence, losses are **\$43.6 million**.
- At 99.9% confidence, losses are **\$92.2 million**.

8. Nodal Credit Status: Overview

Cheryl Yager

- **Credit Monitoring and Management**
 - Systems and Processes
 - Understanding Credit Exposure (*Section 16*)
- **Day Ahead Market – NPRR 206 and “e factors”**
- **First Priority Security Interest**
 - Background
 - Timeline - Document to F&A in August / September

8. Nodal Credit Status: Credit Monitoring and Management Systems and Processes

- **Credit entered Market Trials in mid-May. Daily testing includes:**
 - Posting Credit Reports for Counter-Parties (CPs) twice daily
 - Preliminary reports in the morning
 - Final reports in the evening (which include the Available Credit Limit for the following morning's DAM and/or CRR Auction)
 - Sending Available Credit Limits (ACLs) to CRR and DAM
 - Sending collateral calls when credit limits are exceeded
 - If a collateral call is sent, the CP may not be able to participate in the DAM the next day
 - Recording “e-collateral” sent by CPs via e-mail
 - Identifying and resolving issues as they arise
 - Executing (and adapting, if needed) operating procedures

8. Nodal Credit Status: Credit Monitoring and Management Understanding Credit Exposure (*Section 16*)

- **Credit exposures seen in Market Trials have been very high making it difficult for CPs to evaluate what their exposure might be post go live**
 - Credit exposures are calculated appropriately given Counter-Party (CP) activity in Market Trials (with a few known exceptions)
 - However, CP activity in Market Trials is not necessarily indicative of what can be expected once the market is live. For example, many CP's credit exposure is significantly impacted by:
 - High levels of volume in Real Time
 - High Real Time prices
 - Extrapolation of these high values
 - Some of the impact is the nature of market trials
 - Some is the actions or non-actions of CPs

8. Nodal Credit Status: Credit Monitoring and Management Understanding Credit Exposure *(Section 16)*

- **To help CPs evaluate what their exposure might be in Nodal within the Market Trials environment, ERCOT**
 - Communicates with the market through weekly calls each Friday
 - Works with individual CPs to answer questions specific to their circumstance

8. Nodal Credit Status: Day Ahead Market – NPRR 206 and “e” Factors

- **NPRR 206 and “e” factors process**

- Board approved NPRR 206 in February 2010 and “e” factors process in April 2010
- Intended to moderate the credit exposure calculation in the Day Ahead Market (DAM) to provide for more liquidity in the DAM
- Actions taken to date
 - MMS changes resulting from NPRR 206 went into production at the end of June (with “e” factors set conservatively at $e1 = 1$, $e2 = 0$, and $e3 = 1$)
- Future activities
 - “e” factors expected to be in Market Trials by August 1
 - A training session on NPRR 206 and “e” factors is scheduled for August 10
 - Web-ex will be available and materials will be posted for those who cannot attend
 - Training will provide background and a forum for answering questions once CPs have had a few days to see the impact of “e” factors in Market Trials

8. Nodal Credit Status: First Priority Security Interest – Background Cheryl Yager

- **The Nodal Protocols allow netting of the “mark to market” or forward value of CRRs with other credit exposure when a 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 Interest

8. Nodal Credit Status: First Priority Security Interest – Background Cheryl Yager

- **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

8. Nodal Credit Status: First Priority Security Interest – Timeline

Cheryl Yager

- **Tentative timeline for First Priority Security Interest document**
 - July 1, 2010 – ERCOT circulated initial draft to CPs
 - July 19, 2010 – Comments back from CPs
 - ***August 2, 2010 – ERCOT circulates second draft to CPs***
 - August 17, 2010 – ERCOT reviews document with F&A
 - September 21, 2010 – Final review and possible approval by F&A and ERCOT Board

Background

8. Nodal Credit Status: Credit Monitoring and Management Understanding Credit Exposure (*Section 16*)

- **Real Time Volume:** If a CP represents load, then ERCOT systems require that all of its load requirements be met. In Nodal, load requirements can be met through
 - a) Energy Trades,
 - b) the Day Ahead Market (DAM),
 - c) Generation Resources that your QSE represents or through the
 - d) Real Time (RT) market

Whatever portion of a CP's requirement in Market Trials is not being met through Energy Trades, the DAM or its own Resources, is *being met in the RT market*.

- To date, CPs have used the Energy Trades function minimally
- Therefore, any activity not met in DAM falls to Real Time. On days when DAM is not run, this can be 100% of load.

8. Nodal Credit Status: Credit Monitoring and Management Understanding Credit Exposure (*Section 16*)

- **Real Time Prices:**

- Another significant factor is that some of the pricing in the RT market is very high (in some cases, over \$500 average per day).
 - This primarily occurs when Security Constrained Economic Dispatch runs out of offer curves and must dispatch proxy curves (which are priced at the system-wide offer cap).
- High RT prices are compounding the impact of significant volume in RT.

8. Nodal Credit Status: Credit Monitoring and Management Understanding Credit Exposure (*Section 16*)

Example

<u>Zonal</u>	<u>Zonal</u>	<u>ERCOT Volume</u>	<u>% of Total Vol</u>	<u>ERCOT Price</u>	<u>ERCOT Exposure per day</u>
Total load					
Bilateral	900				
BES	100	100		50	\$ 5,000
Total	1,000	100	10%		\$ 5,000

<u>Nodal - indicative "steady state"</u>	<u>Nodal</u>	<u>ERCOT volume</u>		<u>ERCOT price</u>	<u>ERCOT Exposure</u>
Total load					
Energy Trades	500				
Generation Resources your QSE represents	100				
Day Ahead Market	300	300		45	\$ 13,500
Real Time Market	100	100		50	5,000
Total	1,000	400	40%		\$ 18,500

<u>Nodal - in MT5</u>	<u>Nodal</u>	<u>ERCOT volume</u>		<u>ERCOT price</u>	<u>ERCOT Exposure</u>
Total load					
Energy Trades					
Generation Resources your QSE represents					
Day Ahead Market	600	600		45	\$ 27,000
Real Time Market	400	400		500	200,000
Total	1,000	1,000	100%		\$ 227,000

9. Committee Briefs

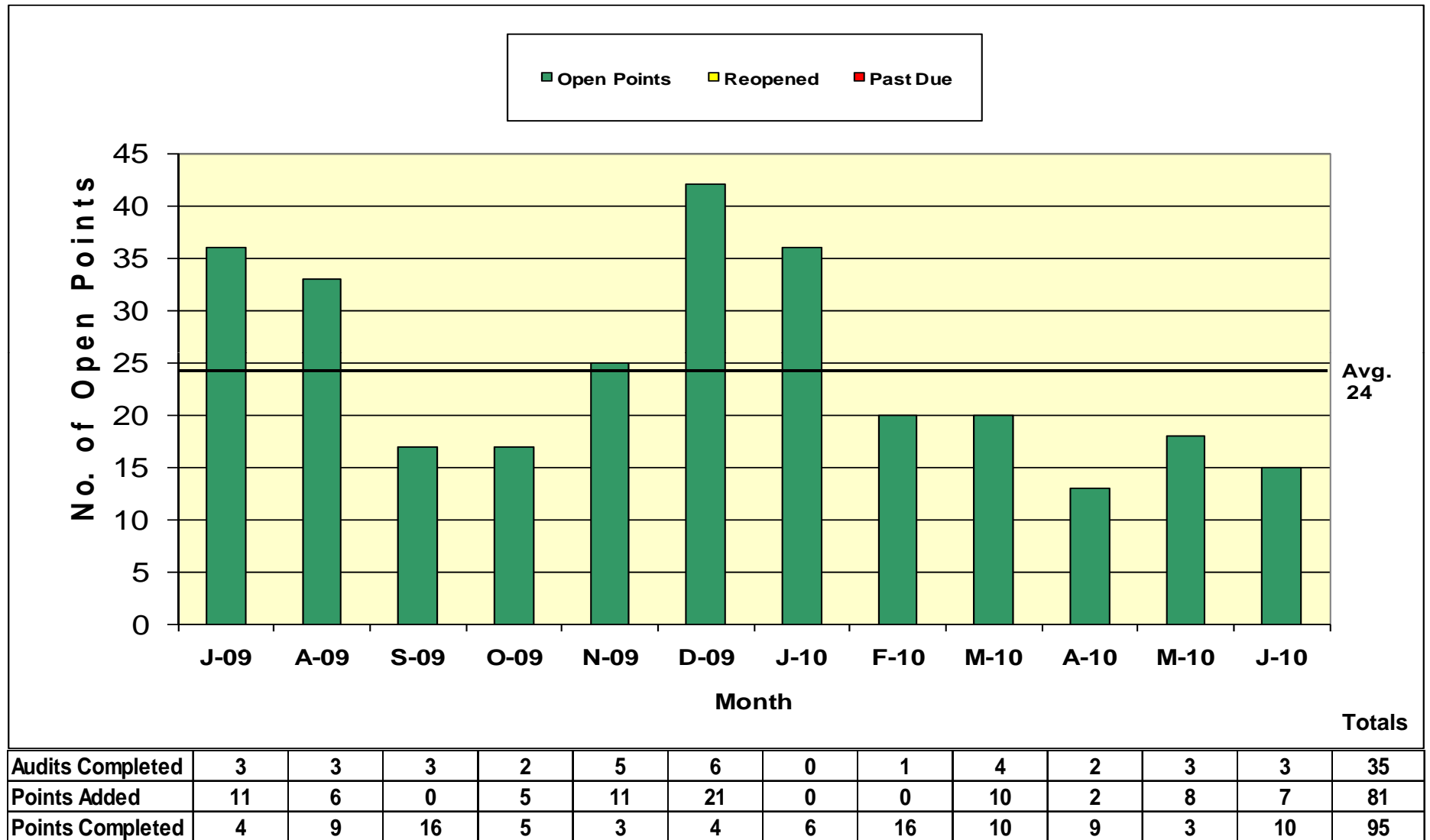
Q&A only

ERCOT Market Credit Status

as of 5/31/2010						as of 6/30/2010					

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

Cheryl Moseley



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

9. Committee Brief: ICMP – Audits

Cheryl Moseley

Audits Completed

(last 3 months)

Internal Audits

- Oracle Software License Compliance (Special Request)
- 2010 Nodal Budget-to-Actual Mgmt. (Special Request – Follow-up)
- Renewable Energy Credits System – IT & Program Admin.
- Procurement Card
- Protocol 1.4 Required Audit – Confidentiality
- Q1 2010 Fraud Auditing
- Protocol 1.4 Required Audit – Independence Verification
- Payroll
- HR Key Controls & Payroll-related Controls

External Audits

- 2009 Financial Audit (Ernst & Young, LLP)

Open Audits

Internal Audits

- Nodal Program Spending (Part 1 of 2)
- Vendor Assessments (Targeted Review)
- Patch Management and Server Hardening
- Cash and Investments
- Q2 Fraud Auditing

External Audits

- 2010 Zonal SAS70 Audit (SAS70 Solutions, Inc.)

Planned Audits

(next 3 months)

Internal Audits

- Pre-Audit Testing for 2011 Nodal SAS70 Audit
- IT Access Management
- Credit Risk Model
- 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

- 2010 Benefit Plan Audit (Auditor – Maxwell, Locke & Ritter)

9. 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

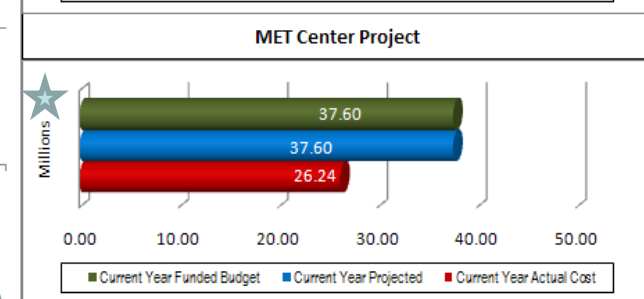
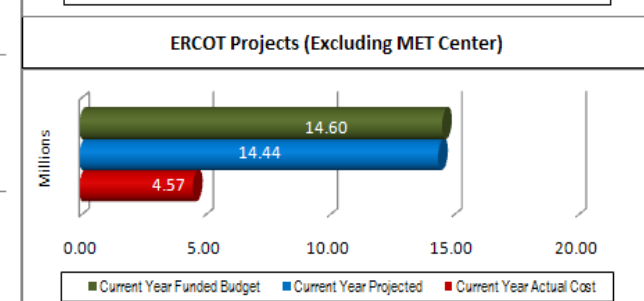
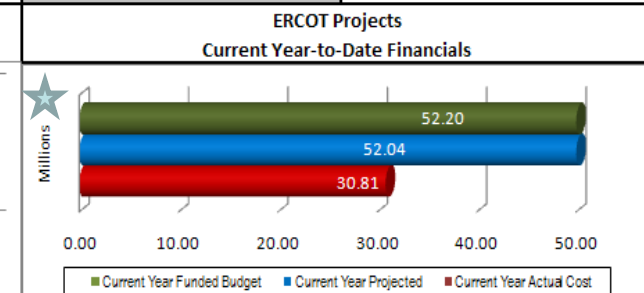
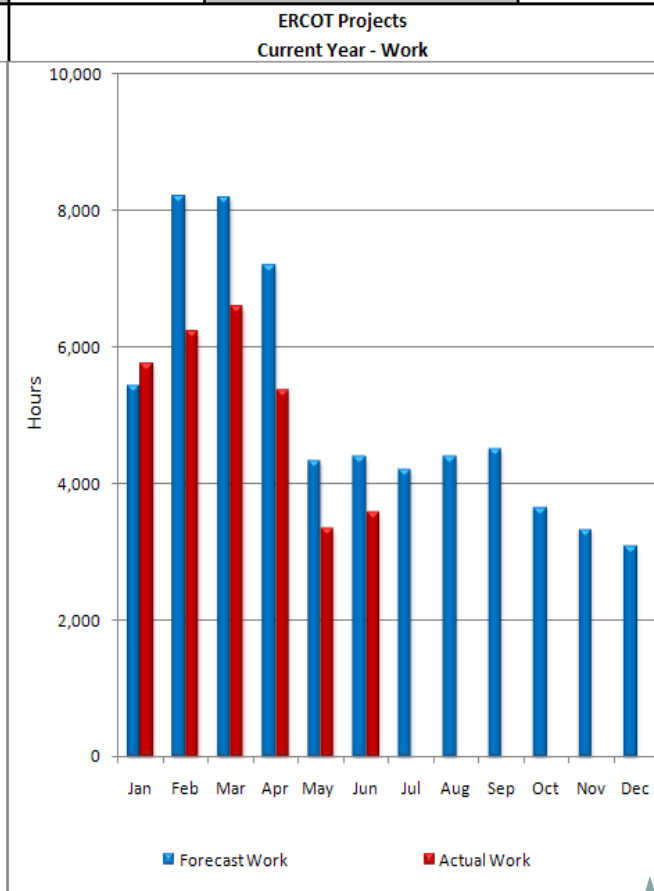
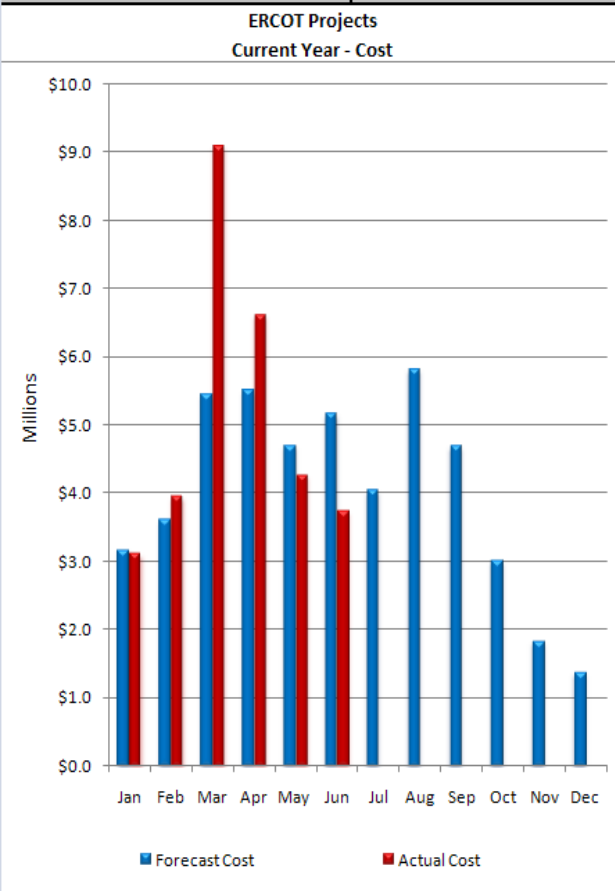
ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
RISK MANAGEMENT EVENT PROFILE MATRIX (as of July 1, 2010)

 Strategic	 Operational Excellence	 Market Facilitation	 Grid Reliability	 Reporting	 Legal and Regulatory Compliance
 Strategy Development <i>Corporate objective setting adequately incorporates informed stakeholder input, market realities and management expertise.</i>	 Performance Monitoring <i>Clearly defined and actively monitored performance metrics linked to mission and goals - Performance status communicated and corrective action taken.</i>	 Customer Choice <i>Market design promotes efficient choice by customers of energy providers with effective mechanisms to change incumbent market participants as desired.</i>	 Grid Operations <i>Information required to operate the grid is efficiently gathered. Appropriate tools are prudently configured to efficiently operate the system.</i>	 Review Practices <i>Prudent measures are taken to insure that company disclosures are properly vetted and not misleading.</i>	 Legal & Legislative <i>Operations are conducted in compliance with all laws and regulations. Impacts of current and proposed legislation are understood and communicated.</i>
 Mission and Goals <i>Corporate objectives and performance standards are understood and followed.</i>	 Business Practices <i>Business planning, processes and management standards are effective and efficient.</i>	 Nodal Implementation Project <i>Nodal Implementation on budget on schedule, and within defined scope.</i>	 Planning <i>Long-range planning methods enable efficient responses to system changes that are necessary to maintain reliability standards.</i>	 Disclosure <i>Reporting and other disclosures to intended parties is timely, accurate and effective.</i>	 Internal Control Compliance <i>Internal Control Compliance processes and management standards are effective, efficient, and provide stakeholders with required assurances of quality.</i>
<i>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.</i>		Full market trials functionality testing continues. 8-hr LFC test completed on schedule. Additional LFC tests have been added to the market trials schedule. Reporting support for DAM/RUC/SASM continues to be upgraded. ERCOT provided initial overview of system cut-over timeline to market participants in early June, with additional details scheduled for release in July.	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 resources to work on these studies has commenced.		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 <i>Positive perceptions by stakeholders lead to less cost and greater flexibility resulting in enhanced enterprise value.</i>	 Workforce <i>Organization design, managerial and technical skills, bench strength and reward systems aligned with corporate goals.</i>	 Counterparty Credit <i>Maintain credit risk exposure for overall market within acceptable limits.</i>	 Bulk System Resources <i>Market Participants construct and make available adequate bulk electric grid resources.</i>	 Communication <i>Internal & external communications are timely and effective.</i>	 Industry Standards <i>Business and operational activities are in compliance with all applicable regulatory, financial and accounting requirements, standards and directives.</i>
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.	We continuing to improve and enhance our performance management processes, talent management identification, succession planning and training initiatives. We have been working with our management team on all of these areas.	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.			Received 2009 NERC audit report for the Operations and Planning (693) portion of the standards. Still waiting for the final 2009 NERC audit report for the Critical Infrastructure Protection (CIP) portion.
 Fiscal Management <i>ISO design requires competent, prudent and cost effective provision of services.</i>	 Technology Infrastructure <i>Information systems, supporting facilities and data are effectively managed and are reliable.</i>	 Administration, Settlement & Billing <i>Market rules fairly applied to all participants. Accounting is timely and accurately reflects electricity production and delivery.</i>	 Operational Responsibility <i>Market participant conduct their operations in a manner which facilitates consistent grid reliability.</i>	 Adequacy and Integrity <i>Robust processes exist to support management assertions embodied within financial reports.</i>	 Regulatory Filings <i>Evidence, testimony and other supporting materials are compelling and successful.</i>
ERCOT is currently forecasting a year-end positive budget variance in excess of \$7.0 million.	Systems remain stable. Sufficient system and computer room capacity exist for Nodal 'go-live'. Austin data center capacity is near maximum and may not be able to accommodate additional unforeseen expansion prior to switchover to Bastrop. Capacity requirements continue to be closely monitored.		There is still a lack of consensus over reactive power and frequency response requirements to existing wind generation resources. However, RTWG is planning to bring a draft of the Texas Renewables Integration Plan (TRIP) to TAC by mid-Summer.		

9. Committee Brief: PMO David Troxtell

ERCOT Enterprise Projects Summary Report

ERCOT		Overall Projects Report					Reporting Period: 6/30/2010	
Projects in Ercot's Portfolio							Portfolio Performance	
Deferred	Concept	On Hold	Initiation	Planning	Execution	Closing	Schedule	Budget
0	1	1	1	6	15	3	Green	Green
		Closed	8	Total Active		26		
		Cancelled	2	Projects Not Started		0		



Includes \$5.9M carry-over funds from 2009 for MET Center.
Page 53 of 57



July 20, 2010

Finance & Audit Committee Meeting

ERCOT
Summary of Investments
June 30, 2010

(\$ in 000's)

<u>Investment Account</u>	<u>Chase</u> <i>Treasury and Repo</i>	<u>Federated 068</u> <i>Treasury and Repo</i>	<u>Federated 0125</u> <i>Treasury only</i>	<u>Evergreen 497</u> <i>Treasury and Repo</i>	<u>Invesco</u> <i>Treasury and Repo</i>	<u>BlackRock</u> <i>Treasury and Repo</i>	<u>Subtotal</u>
Operating	\$ 4,275	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ 4,280
TRE	1,184	1,267	-	-	-	-	\$ 2,451
Market	23,589	109	15	498	2,415	276	\$ 26,902
Deposit/Restricted	2,482	23,613	23,001	37,870	31,010	30,540	\$ 148,516
Total	<u>\$ 31,530</u>	<u>\$ 24,994</u>	<u>\$ 23,016</u>	<u>\$ 38,367</u>	<u>\$ 33,425</u>	<u>\$ 30,816</u>	<u>\$ 182,148</u>
% Investments:	17%	14%	13%	21%	18%	17%	100%
Other cash net of outstanding checks							<u>\$ 1,265</u>
Total cash and cash equivalents							<u>\$ 183,412</u>

Future Agenda Items – August 2010

- **Standing Internal Audit agenda items**
- **Assessment of compliance , the internal control environment and systems of internal controls**
- **Review assumptions and preparation of the 2011 annual operating budget**
- **Standing Nodal Credit Status**
- **Review of investment strategy**
- **Committee briefs**
- **Future agenda items**

10. 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
- Review and approval of annual operating budget
- 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
- 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

11. Other Business

Mike Petterson
