



## ERCOT Finance & Audit Committee Meeting

**Revised**

7620 Metro Center Drive, Austin, Texas

Met Center, Conference Room 206

February 16, 2010; 8:00am – 10:00am\*

Item #	Agenda Item Type	Description/Purpose/Action Required	Presenter	Time
1.		Call to order Executive Session	M. Espinosa	8:00am
2.		2a. Announcement of proxies	M. Espinosa	8:00am
	Decision required	2b. Approval of executive session minutes (Vote) (1/19/10)	M. Espinosa	8:01am
	For discussion	2c. Internal Audit status report	B. Wullenjohn	8:02am
	For discussion	2d. Audit of IT Disaster Recovery processes	R. Morgan	8:05am
	Informative	2e. ISO employee confidentiality agreements and TRE information	B. Wullenjohn	8:20am
	For discussion	2f. Scheduling of the F/U audit of Nodal budget to actual management	B. Wullenjohn/ R. Bowman	8:23am
	For discussion	2g. Update on Internal Audit goals	B. Wullenjohn	8:25am
	Informative	2h. Quality assessment of the Internal Audit department	B. Wullenjohn	8:35am
	Informative	2i. EthicsPoint update	B. Wullenjohn	8:45am
3.	Informative	Financing update	C. Yager	8:50am
4.	Informative	Contracts, personnel, litigation and security	Various	9:05am
		Recess Executive Session		9:10am
		Convene General Session		
5.	Decision required	Approval of general session minutes (Vote) (1/19/10)	M. Espinosa	9:15am
6.	Decision required	6a. Confirmation of CWG Chair and Vice-Chair (Vote)	R. Baker	9:16am
	For discussion	6b. NPPR 206 – background information	C. Yager	9:20am
7.	For discussion	Review ERM standard	C. Yager	9:40am
8.	Informative	Committee Briefs (Q&A only)	All	9:45am
9.	Informative	Future agenda items	R. Bowman	9:50am
		Adjourn ISO meeting	M. Espinosa	9:55am

\* 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, March 23, 2010, at ERCOT, 7620 Metro Center Drive, Austin, Texas 78744, in Room 206.

Decision required
For discussion

## 5. Approval of General Session Minutes

Miguel Espinosa

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### **Approval of General Session Minutes**

- Vote 01/19/10

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

7620 Metro Center Drive (Room 206) – Austin, Texas 78744  
January 19, 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. 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 General Session then went into Executive Session at **8:15 a.m.**, where it remained until it recessed back to General Session at approximately **8:56 a.m.**

**General Session Attendance**

**Committee members:**

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
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:**

Smitherman, Barry	Public Utility Commission of Texas	PUC Chairman	Present
Walker, Mark	NRG Texas	Independent Generator	Present
Whittle, Brandon	DB Energy Trading, LLC	Independent Power Marketer	Present

**ERCOT Staff and Guests:**

Adams, Jack	ERCOT - Manager of Retail Client Services & Market Analysis
Baker, Randy	ERCOT – Director, Credit Risk Management
Berill, Rob	GMEC
Bowman, Roy	ERCOT – Interim Vice President & Chief Financial Officer
Day, Betty	ERCOT – Director of Markets
DiPastena, Phil	ERCOT – Enterprise Risk Manager
Doggett, H.B. “Trip”	ERCOT – Interim President and Chief Executive Officer
Doolin, Estrellita	ERCOT – Assistant General Counsel
Forfia, David	ERCOT – Director, IT Infrastructure
Gillmore, Gina	ERCOT – Senior Financial Analyst
Jefferis, Don	Opportune, Inc.
Jones, Liz	Oncor

Jones, Randy	Calpine
Manning, Chuck	ERCOT – Chief Compliance Officer
Morehead, Juliana	ERCOT – Associate Corporate Counsel
Morris, Sandy	Lower Colorado River Authority
Petterson, Michael	ERCOT - Controller
Stauffer, Tarra	ERCOT – Legal Assistant
Walker, DeAnn	CenterPoint Energy
Wullenjohn, Bill	ERCOT – Director of Internal Audit
Yager, Cheryl	ERCOT – Treasurer

### **Election of Finance & Audit Committee Chairman and Vice Chairman**

**Mr. Gent moved to recommend that Clifton Karnei be re-elected Chairman and Miguel Espinosa be re-elected Vice Chairman of the Finance & Audit Committee. Mr. Dreyfus seconded the motion. The motion passed unanimously with no abstentions.**

### **Confirmation of Financial Qualifications and Committee Membership**

The Committee discussed the requirements for Committee membership. Mr. Karnei stated that he and Mr. Espinosa were designated “financial experts” in the past, and continue to meet the definition of that term. Several Committee members disclosed their finance and/or accounting experience, to ensure compliance with the Committee Charter.

### **Approval of Prior Meeting General Session Minutes**

**Mr. Crowder moved to approve the minutes for the General Session of the Committee meeting held on December 15, 2009. Mr. Gent seconded the motion. The motion passed unanimously with no abstentions.**

### **Quarterly Investment Update**

Cheryl Yager directed the Committee to materials provided prior to the meeting and presented the Committee members with an overview of the quarterly report for the fourth quarter of 2009. Ms. Yager noted that rates were very low during the period. She pointed out one fund that had a high average balance, noting that 1) the fund had held monies in excess of \$50 million prior to the cap going in place in November and that 2) staff had worked through December to get the fund within the \$50 million cap. She noted that she did not expect an issue with the \$50 million cap going forward. Mr. Crowder inquired about the Texas Regional Entity (TRE)’s separation from ERCOT bank accounts. Ms. Yager stated that she believed when the TRE was ready, the TRE would open their own bank accounts, where after ERCOT would transfer TRE funds to the TRE and close the TRE accounts opened by ERCOT, and remove said funds from ERCOT schedules.

### **Credit Briefing**

Randy Baker provided the Committee with a high-level overview of ERCOT’s third quarter potential credit risk exposure simulation results.

He informed the Committee that an issue to be aware of in 2010 is the conversion from Zonal to Nodal, because it would be the last time to run a full year simulation. Mr. Baker then solicited thoughts from the Committee concerning its expectations, as well as any

impacts/questions/concerns it may have between now and NODAL go-live. Ms. Yager commented that ERCOT could run six month or year models to provide the Committee with a comparison to the 2009 results. Mr. Baker and Ms. Yager stated that they believed running the model with both a full year and six-month term would be ideal. Mr. Karnei agreed, and expressed the need to run the models as soon as Q2 due to credit implications with the transition to Nodal.

Mr. Baker spoke about a stress case conducted by ERCOT that took a gas curve on a consistent percentage across the board to see the effects on losses for the entire simulation. He noted that the risk levels were fairly consistent. Mr. Baker assured the Committee that he would be presenting further details to the Board in the afternoon meeting. He then explained that the model was designed to simulate all defaults which could occur within a given time period, (i.e., simulate power prices), and then provide levels of loss. Mr. Baker emphasized the importance of undertaking stress cases to understand how changes in risk elements could potentially affect losses.

### **Committee Briefs**

Materials distributed prior to the Committee meeting focused on the following areas:

1. Market Credit
2. Internal Control Management Program ("ICMP")
3. Risk Management
4. Project Management Organization ("PMO")
5. Investment Update

### **Future Agenda Items**

The following items were identified as future agenda items:

1. Standing Internal Audit agenda item
2. Review of the ERM Standard
3. Elect Credit Work Group Officers
4. P-Card Program presentation
5. IT Disaster Recovery Plan discussion
6. Risk Quarterly Review
7. Committee briefs
8. Future agenda items

### **Adjournment**

Clifton Karnei adjourned the meeting at approximately 9:56 a.m.

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Juliana Morehead  
Associate Corporate Counsel

6a. Confirm Credit Work Group Chair and Vice Chair <Vote>  
Randy Baker

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- **The Credit Work Group Charter requires that** “The Chair and Vice-Chair of the CWG shall be elected annually by the CWG membership and confirmed by vote of the F&A Committee”
  - By e-mail vote prior to its February 2, 2010 meeting, the CWG elected the following as its Chair and Vice-Chair for 2010.  
(brief bios are provided on the following slide)
- Chairman - Arlene Spangler
- Vice Chair - Tamila Nikazm

## 6a. Confirm Credit Work Group Chair and Vice Chair <Vote> Randy Baker

### **Chair: Arleen Spangler, NRG Energy, Inc.**

- Over 20 years of energy credit experience
- Currently is Director, Credit Risk at NRG Energy, Inc. where she manages the enterprise-wide credit function, including wholesale hedging/trading activity, structured credit, development projects and retail operations.
- Formerly a member of Morgan Stanley's Credit Advisory Group; prior to this, a Team Leader and Director at Standard & Poor's Utility and Infrastructure practice, with an analytic role on merchant generators and complex project finance transactions.
- Undergraduate degree in economics from Randolph-Macon Woman's College and an MBA in finance from New York University.

### **Vice Chair: Tamila Nikazm, Austin Energy**

- Manager of risk control section of energy management operations including ERCOT Settlements and Credit.
- Has been working with the City of Austin/ Austin Energy in the field of accounting and finance over past 18 years.
- Tamila is also a CPA and an MBA

## 7. Review ERM Standard

Cheryl Yager

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- **Revised Purpose statement**
  - Aligned with rest of document to focus on roles and responsibilities, not processes
- **Expanded Definitions section**
  - Primarily clarifications of terms used in previous version
- **Risk Management Committee**
  - Additional detail on its responsibilities
    - Define and implement
    - Execute and monitor
  - Annual self evaluation
- **Updated ERM Oversight chart**
  - Active subcommittees
  - Current organizational structure



**Redline version attached as separate document**

## ERCOT CORPORATE STANDARD

Document Name:	Enterprise Risk Management Corporate Standard
Document ID:	CS1.3 <u>.X</u>
Effective Date:	February <u>5, 2007</u> <u>1, 2010</u>
Owner:	Chief <u>Financial</u> <u>Executive</u> Officer
Governs:	ERCOT Personnel
Approved:	<u>Sam Jones, H. B. "Trip" Doggett, ERCOT, Inc. Interim</u> President & CEO

### 1.0 Purpose

- ~~The Purpose of this Corporate Standard is to describe the methods for~~
- ~~identifying, analyzing, and measuring risks in order to develop and implement~~
- ~~risk mitigation strategies based on ERCOT's risk tolerances.~~

Enterprise Risk Management (ERM) is the process by which ERCOT coordinates and integrates its risk management efforts to obtain a comprehensive understanding of material risks to the company to (a) enable the organization to manage its risks effectively, and (b) provide stakeholders with an understanding of the risks facing the organization. The purpose of this corporate standard is to provide overall guidance and assign roles and responsibilities for ERCOT's ERM program.

### 2.0 Definitions

**Inherent Risk** is any type of business risk an entity assumes simply by engaging in the duties and responsibilities of that type of business. Inherent risks exists prior to and regardless of any attempt to mitigate or manage it.

**Internal Controls** are processes affected by an organization's structure, work and authority flows, people and management information systems, designed to help the organization accomplish specific goals or objectives. They are a means by which an organization's resources are directed, monitored, and measured.

**Line Managers** are Directors, Managers, and Supervisors who report up through the chain of command to a Risk Owner.

**Material Risk** is defined as any significant event or circumstance which would impact the achievement of ERCOT's business objectives, including the risk categories listed in Section 3 of this document.

**Residual Risk** is the Risk that remains after management's intended actions to mitigate an Inherent Risk have been effectively implemented. Mitigation plans may include diversification strategies, policies and procedures providing limits, authorizations or other protocols, supervisory staff reviewing and acting on performance measures, or establishing criteria to standardize and accelerate recurring decisions or transaction approvals. Mitigation actions may reduce the likelihood of occurrence of a potential event, the impact of such an event, or both.

**Risk** is the possibility that an event will or will not occur and adversely affect the achievement of objectives. ~~defined as exposure to unfavorable outcomes relative to ERCOT's responsibilities as defined by the Public Utility Regulatory Act (PURA), Public Utility Commission of Texas (PUCT) rules and ERCOT corporate objectives. ERCOT recognizes that each of its organization areas has a risk profile. It is the general philosophy of ERCOT that management is expected to identify such risks and take appropriate steps to mitigate and manage these risks.~~

**Risk Management Culture** is the ~~process~~ system of **identifying, analyzing, values and measuring risks in order to develop and implement** behaviors present throughout an organization that shape risk ~~mitigation strategies consistent with ERCOT's defined risk tolerances~~ decisions. While ~~line~~ one of the "softest" aspects of risk management **is ultimately**, it is important, because it influences the risk consciousness of people within the organization and is the basis of all other components of risk management, providing discipline and structure. It also can help ensure that "doing the right thing" wins out over "doing whatever it takes."

**Risk Owners** are executive-level business process owners that are directly accountable **and responsible** for the comprehensive management of risks arising from activities in their respective areas, **the Chief Executive Officer (CEO) has established a Risk Management Committee (RMC) to provide oversight in the identification and management of risk for the overall enterprise**, including necessary communication of risks taken.

### 3.0 Standards

**Risk Categories – ERCOT has categorized its inherent risk into the following categories****manages the following types of risk:**

- 1) Strategic - The risk arising from business decisions or implementation of those decisions, including how management

analyzes factors that impact the responsibilities, organization mission, and objectives of ERCOT.

- 2) Operational Excellence – The risk arising from external events, errors, and ineffective utilization of ERCOT's resources.
- 3) Market Facilitation – The risk arising from ERCOT's ability to administer and process market transactions in a reliable and efficient manner.
- 4) Grid Reliability – The risk arising from ERCOT's ability to plan and operate the bulk electric system in a reliable and efficient manner.
- 5) Reporting – The risk arising from the reliability of ERCOT's disclosures and communications.
- 6) Compliance – The risk arising from ERCOT's requirement to comply with laws, regulations, standards, and contracts.

#### **4.0 Roles /-Accountabilities for Enterprise Risk Management**

##### **Board of Directors**

The Board of Directors (BoD) is responsible for oversight of ERCOT management, including the design and operation of ERCOT's risk management program.

##### **Chief Executive Officer**

The Chief Executive Officer (CEO) is responsible for:

- 1) Recognizing the ~~risk~~Risks to which ERCOT is exposed and ensuring that the requisite ~~risk—management—culture~~Risk Management Culture, policies, practices, and resources are in place.
- 2) Ensuring that ERCOT's activities are carried out within the parameters of the risk management framework.
- 3) Provisioning and allocating resources to mitigate risk in accordance with ERCOT's risk tolerance. [CG4040]
- 4) Ensuring that the BoD, the PUCT, and other relevant authorities are informed of ~~risks taken~~Residual Risks held in pursuing ERCOT's goals and objectives.

~~Line managers within divisions are accountable for the comprehensive management of risks arising from activities in their respective areas, including necessary communication of risks taken.~~

The Manager, Enterprise Risk Management (ERM) is responsible for supporting the review of all enterprise risks associated with ERCOT, Inc. [CG4010]

## **Risk Management Committee**

### **Risk Owners**

Risk Owners are members of the Risk Management Committee.

Line Managers are responsible for identifying and reporting changes to the status of previously identified risks, as well as emerging or suspected risks, through both formal and informal processes. [CG4060] Formal processes include Management Exception Requests, Security Exception Requests, budget and business planning updates, Risk Management Committee (RMC) subcommittees, the Risk Assessment Review Form, and direct communication with their Area Officer. Informal processes include, but are not limited to, ad hoc one-on-one discussions with the Enterprise Risk Manager, direct communication with the Risk Owner, and EthicsPoint reports. [CG4030]

Line Managers are also responsible for recommending mitigation alternatives and, if so directed by the Risk Owner, for implementing mitigation measures. [CG4030]

### **Risk Management Committee**

ERCOT has established the RMC Risk Management Committee (RMC) to oversee ERCOT's management of corporate risks.— through a comprehensive approach designed to anticipate, identify, prioritize, and manage Material Risks through an integrated ERM program. [CG4050]

To ensure that Material Risks across the entire organization are considered, the Committee consists of the executive officers of the company and any other key staff members as determined by the CEO. [CG4070] Members may designate a member of their staff to participate in Committee meetings in their absence from time to time. The Manager of ERM serves as the secretary of the Committee and the facilitator of ongoing activities as directed by the Committee. [CG4010]

The Committee meets as frequently as it deems necessary to carry out its duties and responsibilities, but it meets at least quarterly.

The Committee maintains minutes of its meetings and, at least quarterly, provides a risk report to the Finance and Audit Committee of the BoD summarizing the Committee's activities, findings, conclusions, and recommendations. [CG4080]

While recognizing that risks are managed within divisional areas of responsibility, the RMC seeks to aggregate risks so that they are effectively measured and discussed at the enterprise level. The CEO designates the members of the RMC. [CG4070] Accordingly, the primary responsibility of the RMC is to ensure

that sound policies, procedures, and practices are in place and that Material Risks are effectively managed for the enterprise.

The ~~RMC is responsible for~~Committee:

- ~~1) Identifying~~**Defines and implements risk management practices**  
by
  - a. Providing ongoing guidance and support for the refinement of the overall risk management framework ensuring appropriate practices are incorporated;
- ~~1) Ensuring that management understands and accepts its responsibility for identifying, assessing, and monitoring corporate risks [CG4030] [CG4040]~~
- ~~2) Recommending aggregate risk tolerances and risk allocations for Board of Director approval [CG4050] [CG4060]~~
  - b. Approval of Risk Management Procedures and Controls, managing risk-analytic methods,<sup>1</sup> and
  - c. Ensuring that risks are properly identified and prioritized. [CG4040]
- ~~3)2)~~**Executes and monitors risk management**  
productspractices by
  - a. Reviewing general ongoing risk assessments by Line Managers taking into consideration impacts to other business conditions, departments in the organization;
  - b. Monitoring ERCOT's risk exposures, portfolio and broad strategies, recommending changes to resource allocations between business units when necessary in response to significant changes in the risk profile faced by the enterprise;
  - c. Assigning Risk Owners;
  - ~~4)d.~~d. Reviewing and performance reports monitoring the effectiveness of risk mitigation progress;
- ~~5) Reporting compliance and summary risk exposures to the BoD and/or Board Committees, the PUCT, and other relevant authorities on a regular basis [CG4080] [CG4081]~~
  - e. Reporting to the Finance and Audit Committee of the BoD (a) the magnitude of all material business risks; (b) the processes, procedures, and controls in place to manage Material Risks; and (c) the overall effectiveness of the risk management process<sup>1</sup>; and
  - f. Monitoring the effectiveness of ERCOT's risk program.

The RMC may create subcommittees to provide greater attention to specific risk issues in various ERCOT activities, such as:

<sup>1</sup> Not all risk reporting to the BoD is channeled through the Finance and Audit Committee. Some enterprise risks, for example, those involving NERC Compliance and Nodal Implementation, are also reported directly to the BoD by the Risk Owner who is typically a member of the Executive Team.

- 1) Finance
- 2) Compliance & Disclosure ~~(C&D)~~
- 3) Security
- ~~3)4)~~ NERC Reliability -Compliance
- 4) ~~Market~~
- 5) ~~Information Technology (IT)~~
- 6) ~~Security~~

### ***Enterprise Risk Management***

The Manager, Enterprise Risk Management (ERM) is responsible for supporting the review of all enterprise risks associated with ERCOT. [CG4010]

The ERM function reports to the Treasurer and acts as an agent to the RMC to independently assess and report risk exposures. The ERM function has the following responsibilities:

- 1) Support the efforts of the RMC and risk subcommittees
- 2) Conduct periodic, entity-wide risk awareness training [CG4015]
- 3) Assist in the development of ~~internal controls~~ Internal Controls
- 4) Develop and implement methods to identify, monitor, and report enterprise risk
- 5) Other duties as directed by the RMC from time to time

A graphical depiction of ERCOT's risk oversight structure is depicted in Figure 1.

## **5.0 Reporting**

The RMC provides reports to the following:

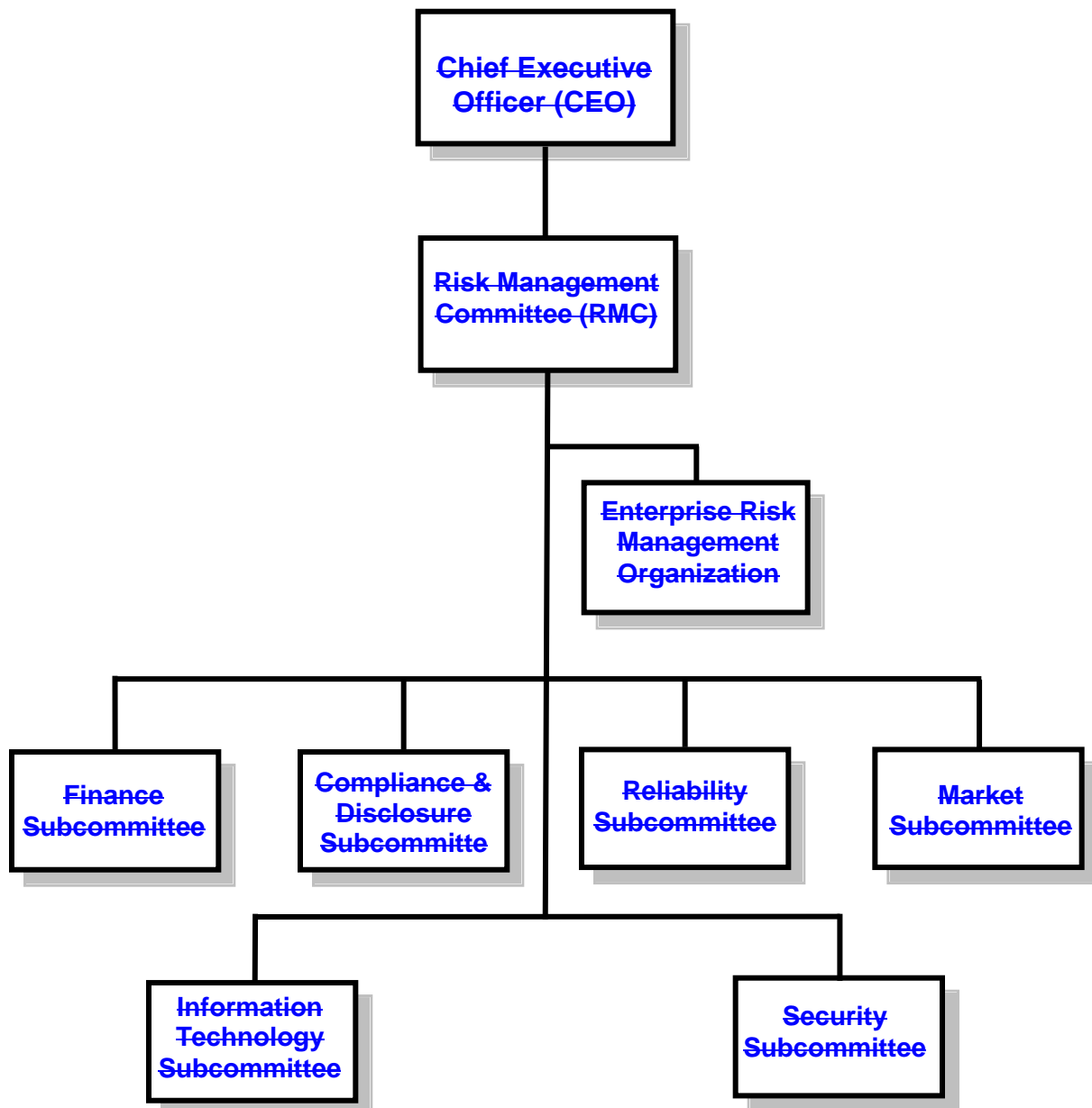
- 1) CEO
- 2) BoD
- 3) ~~Board~~ BoD Committees
- 4) ~~PUGT~~
- ~~5)4)~~ Other relevant authorities

The ERM function provides reports on ERCOT's compliance with its risk standards and its risks managed in accordance with the standards to:

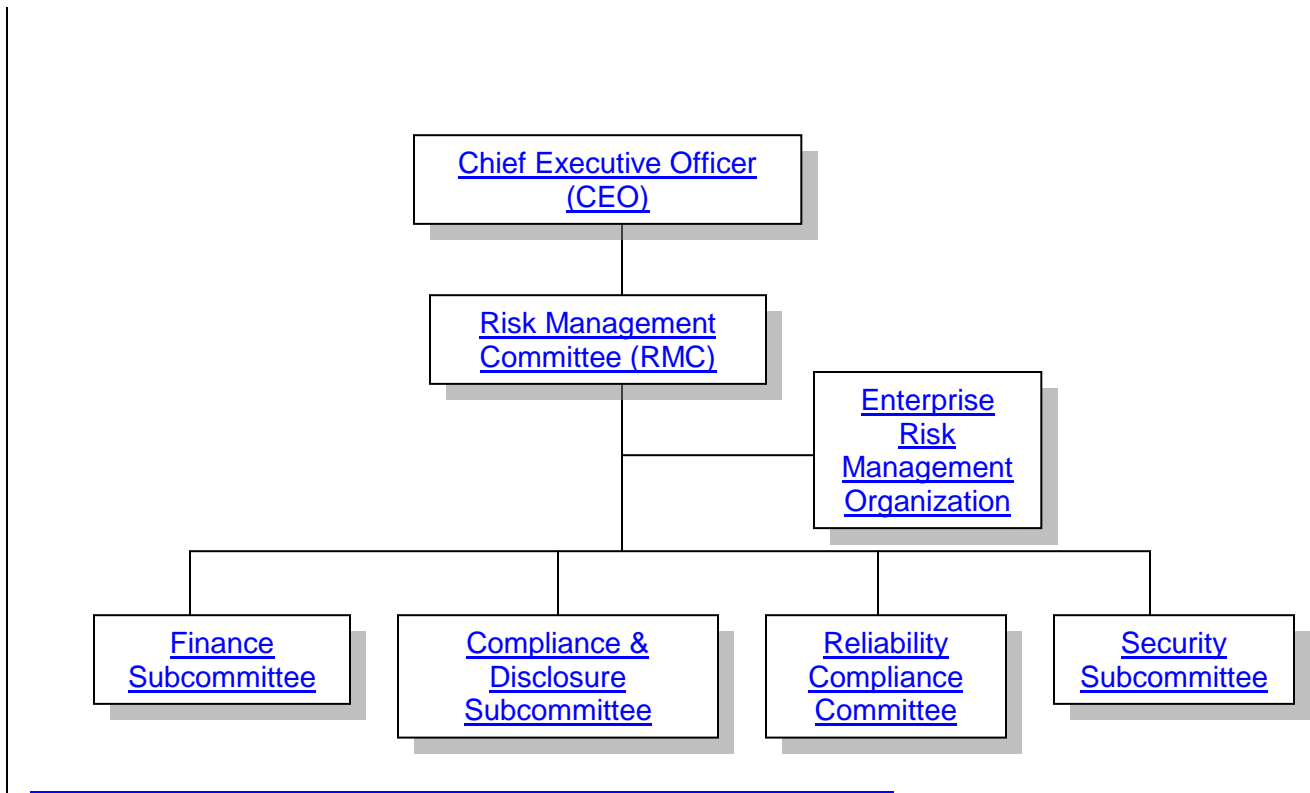
- 1) BoD and ~~//~~or BoD Committees [CG4080]
- 2) RMC  
[CG4070]

## **6.0 Annual Evaluation**

The Risk Management Committee evaluates its performance on an annual basis. The evaluation is conducted in such manner as the Committee deems appropriate and in accordance with best practices. The evaluation compares the performance of the Committee with the requirements of this corporate standard. The evaluation also includes a review together with recommended improvements of the Committee's Charter.







**Figure 1: ERCOT Risk Management Oversight Structure**

**Clean version attached as separate document**

## ERCOT CORPORATE STANDARD

Document Name:	Enterprise Risk Management Corporate Standard
Document ID:	CS1.3 .x
Effective Date:	February 1, 2010
Owner:	Chief Executive Officer
Governs:	ERCOT Personnel
Approved:	H. B. "Trip" Doggett, ERCOT, Inc. Interim President & CEO

### 1.0 Purpose

Enterprise Risk Management (ERM) is the process by which ERCOT coordinates and integrates its risk management efforts to obtain a comprehensive understanding of material risks to the company to (a) enable the organization to manage its risks effectively, and (b) provide stakeholders with an understanding of the risks facing the organization. The purpose of this corporate standard is to provide overall guidance and assign roles and responsibilities for ERCOT's ERM program.

### 2.0 Definitions

**Inherent Risk** is any type of business risk an entity assumes simply by engaging in the duties and responsibilities of that type of business. Inherent risks exists prior to and regardless of any attempt to mitigate or manage it.

**Internal Controls** are processes affected by an organization's structure, work and authority flows, people and [management information systems](#), designed to help the organization accomplish specific goals or objectives. They are a means by which an organization's resources are directed, monitored, and measured.

**Line Managers** are Directors, Managers, and Supervisors who report up through the chain of command to a Risk Owner.

**Material Risk** is defined as any significant event or circumstance which would impact the achievement of ERCOT's business objectives, including the risk categories listed in Section 3 of this document.

**Residual Risk** is the Risk that remains after management's intended actions to mitigate an Inherent Risk have been effectively implemented. Mitigation plans may include diversification strategies, policies and procedures providing limits,

authorizations or other protocols, supervisory staff reviewing and acting on performance measures, or establishing criteria to standardize and accelerate recurring decisions or transaction approvals. Mitigation actions may reduce the likelihood of occurrence of a potential event, the impact of such an event, or both.

**Risk** is the possibility that an event will or will not occur and adversely affect the achievement of objectives.

**Risk Management Culture** is the system of values and behaviors present throughout an organization that shape risk decisions. While one of the “softest” aspects of risk management, it is important, because it influences the risk consciousness of people within the organization and is the basis of all other components of risk management, providing discipline and structure. It also can help ensure that “doing the right thing” wins out over “doing whatever it takes.”

**Risk Owners** are executive-level business process owners that are directly accountable for the comprehensive management of risks arising from activities in their respective areas, including necessary communication of risks taken.

### **3.0 Standards**

***Risk Categories – ERCOT manages the following types of risk:***

- 1) Strategic - The risk arising from business decisions or implementation of those decisions, including how management analyzes factors that impact the responsibilities, organization mission, and objectives of ERCOT.
- 2) Operational Excellence – The risk arising from external events, errors, and ineffective utilization of ERCOT’s resources.
- 3) Market Facilitation – The risk arising from ERCOT’s ability to administer and process market transactions in a reliable and efficient manner.
- 4) Grid Reliability – The risk arising from ERCOT’s ability to plan and operate the bulk electric system in a reliable and efficient manner.
- 5) Reporting – The risk arising from the reliability of ERCOT’s disclosures and communications.
- 6) Compliance – The risk arising from ERCOT’s requirement to comply with laws, regulations, standards, and contracts.

### **4.0 Roles /Accountabilities for Enterprise Risk Management**

#### ***Board of Directors***

The Board of Directors (BoD) is responsible for oversight of ERCOT management, including the design and operation of ERCOT’s risk management program.

### **Chief Executive Officer**

The Chief Executive Officer (CEO) is responsible for:

- 1) Recognizing the Risks to which ERCOT is exposed and ensuring that the requisite Risk Management Culture, policies, practices, and resources are in place.
- 2) Ensuring that ERCOT's activities are carried out within the parameters of the risk management framework.
- 3) Provisioning and allocating resources to mitigate risk in accordance with ERCOT's risk tolerance. [\[CG4040\]](#)
- 4) Ensuring that the BoD, the PUCT, and other relevant authorities are informed of Residual Risks held in pursuing ERCOT's goals and objectives.

### **Risk Owners**

Risk Owners are members of the Risk Management Committee.

Line Managers are responsible for identifying and reporting changes to the status of previously identified risks, as well as emerging or suspected risks, through both formal and informal processes. [\[CG4060\]](#) Formal processes include Management Exception Requests, Security Exception Requests, budget and business planning updates, Risk Management Committee (RMC) subcommittees, the Risk Assessment Review Form, and direct communication with their Area Officer. Informal processes include, but are not limited to, ad hoc one-on-one discussions with the Enterprise Risk Manager, direct communication with the Risk Owner, and EthicsPoint reports. [\[CG4030\]](#)

Line Managers are also responsible for recommending mitigation alternatives and, if so directed by the Risk Owner, for implementing mitigation measures. [\[CG4030\]](#)

### **Risk Management Committee**

ERCOT has established the Risk Management Committee (RMC) to oversee ERCOT's management of corporate risks through a comprehensive approach designed to anticipate, identify, prioritize, and manage Material Risks through an integrated ERM program. [\[CG4050\]](#)

To ensure that Material Risks across the entire organization are considered, the Committee consists of the executive officers of the company and any other key staff members as determined by the CEO. [\[CG4070\]](#) Members may designate a member of their staff to participate in Committee meetings in their absence from time to time. The Manager of ERM serves as the secretary of the Committee and the facilitator of ongoing activities as directed by the Committee. [\[CG4010\]](#)

The Committee meets as frequently as it deems necessary to carry out its duties and responsibilities, but it meets at least quarterly.

The Committee maintains minutes of its meetings and, at least quarterly, provides a risk report to the Finance and Audit Committee of the BoD summarizing the Committee's activities, findings, conclusions, and recommendations. [CG4080]

While recognizing that risks are managed within divisional areas of responsibility, the RMC seeks to aggregate risks so that they are effectively measured and discussed at the enterprise level. Accordingly, the primary responsibility of the RMC is to ensure that sound policies, procedures, and practices are in place and that Material Risks are effectively managed for the enterprise.

The Committee:

- 1) **Defines and implements risk management practices by**
  - a. Providing ongoing guidance and support for the refinement of the overall risk management framework ensuring appropriate practices are incorporated;
  - b. Ensuring that management understands and accepts its responsibility for identifying, assessing, and managing risk; and
  - c. Ensuring that risks are properly identified and prioritized. [CG4040]
- 2) **Executes and monitors risk management practices by**
  - a. Reviewing ongoing risk assessments by Line Managers taking into consideration impacts to other business departments in the organization;
  - b. Monitoring ERCOT's risk portfolio and recommending changes to resource allocations between business units when necessary in response to significant changes in the risk profile faced by the enterprise;
  - c. Assigning Risk Owners;
  - d. Reviewing and monitoring the effectiveness of risk mitigation progress;
  - e. Reporting to the Finance and Audit Committee of the BoD (a) the magnitude of all material business risks; (b) the processes, procedures, and controls in place to manage Material Risks; and (c) the overall effectiveness of the risk management process<sup>1</sup>; and
  - f. Monitoring the effectiveness of ERCOT's risk program.

The RMC may create subcommittees to provide greater attention to specific risk issues in various ERCOT activities, such as:

- 1) Finance
- 2) Compliance & Disclosure

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<sup>1</sup> Not all risk reporting to the BoD is channeled through the Finance and Audit Committee. Some enterprise risks, for example, those involving NERC Compliance and Nodal Implementation, are *also* reported directly to the BoD by the Risk Owner who is typically a member of the Executive Team.

- 3) Security
- 4) NERC Reliability Compliance

### ***Enterprise Risk Management***

The Manager, Enterprise Risk Management (ERM) is responsible for supporting the review of all enterprise risks associated with ERCOT. [\[CG4010\]](#)

The ERM function reports to the Treasurer and acts as an agent to the RMC to independently assess and report risk exposures. The ERM function has the following responsibilities:

- 1) Support the efforts of the RMC and risk subcommittees
- 2) Conduct periodic, entity-wide risk awareness training [\[CG4015\]](#)
- 3) Assist in the development of Internal Controls
- 4) Develop and implement methods to identify, monitor, and report enterprise risk
- 5) Other duties as directed by the RMC from time to time

A graphical depiction of ERCOT's risk oversight structure is depicted in Figure 1.

## ***5.0 Reporting***

The RMC provides reports to the following:

- 1) CEO
- 2) BoD
- 3) BoD Committees
- 4) Other relevant authorities

The ERM function provides reports on ERCOT's compliance with its risk standards and its risks managed in accordance with the standards to:

- 1) BoD and/or BoD Committees [\[CG4080\]](#)
- 2) RMC [\[CG4070\]](#)

## ***6.0 Annual Evaluation***

The Risk Management Committee evaluates its performance on an annual basis. The evaluation is conducted in such manner as the Committee deems appropriate and in accordance with best practices. The evaluation compares the performance of the Committee with the requirements of this corporate standard. The evaluation also includes a review together with recommended improvements of the Committee's Charter.



**Figure 1: ERCOT Risk Management Oversight Structure**



## 8. Committee Briefs

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**Q&A only**

## ERCOT Market Credit Stats

as of 12/31/2009						as of 1/31/2010					
	# 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	
<b>Exposure in the ERCOT Market (owed to ERCOT)</b>											
<u><i>QSEs that meet ERCOT Creditworthiness Standards</i></u>											
Ratings over BBB-	10	23,383,899	8%	171,336,431	U		9	21,372,023	8%	144,508,221	U
<u><i>QSEs that do not meet ERCOT Creditworthiness Standards</i></u>											
Ratings below BBB- or not rated											
Cash & Letters of Credit	55	183,257,798	59%	266,546,619	S		52	139,169,848	54%	252,383,918	S
Guarantee Agreements	17	102,726,268	33%	380,549,571	S		17	99,201,751	38%	372,762,172	S
<b>Total Exposure</b>	<b>82</b>	<b>309,367,965</b>	<b>100%</b>				<b>78</b>	<b>259,743,622</b>	<b>100%</b>		
<b>Other QSEs in the ERCOT Market (ERCOT owes)</b>											
<u><i>QSEs that meet ERCOT Creditworthiness Standards</i></u>											
Ratings over BBB-	6	(1,191,380)	-2%	43,171,790	U		7	(6,201,398)	-9%	70,000,000	U
<u><i>QSEs that do not meet ERCOT Creditworthiness Standards</i></u>											
Ratings below BBB- or not rated											
Cash & Letters of Credit	64	(53,164,644)	-70%	70,507,307	S		68	(43,691,543)	-61%	81,855,070	S
Guarantee Agreements	12	(21,044,403)	-28%	162,411,700	S		13	(22,366,709)	-31%	182,199,100	S
<b>Total</b>	<b>82</b>	<b>(75,400,427)</b>	<b>-100%</b>				<b>88</b>	<b>(72,259,650)</b>	<b>-100%</b>		
<b>Total</b>	<b>164</b>						<b>166</b>				

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

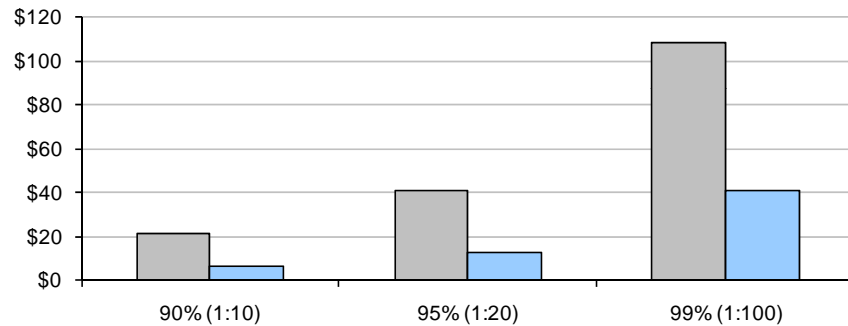
S: For QSEs that do not meet ERCOT's Creditworthiness Standards, amount of Security posted.

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.

## 8. Committee Brief: Credit – Potential Future Exposure: Stress Case – 4x Escalation in Natural Gas Prices – Randy Baker

### Simulations using Q3-2009 Financials

Potential Credit Loss - Base Case  
(\$Millions)



Q3-2009 Stress Case (\$22.262 avg. NG strip)  
 Q3-2009 Base Case (\$5.566 avg. NG strip)

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)

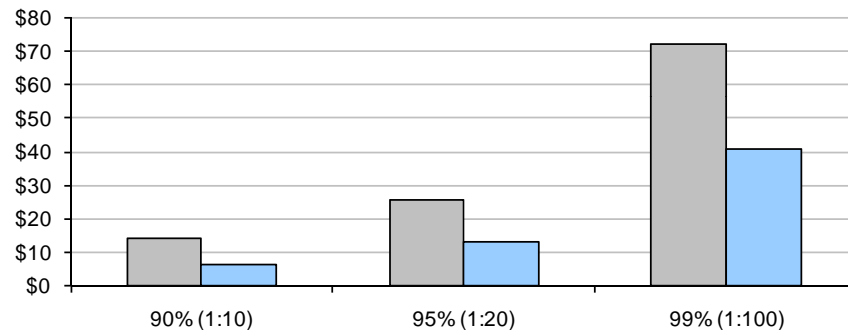
90% (1:10)  
 95% (1:20)  
 99% (1:100)  
 99.9% (1:1,000)  
 Max (1:10,000)

Q3-2009 Stress Case	Q3-2009 Base Case
365	365
10,000	10,000
44,805	44,782
9,545	9,546
455	454
3,820	3,670
4,275	4,124
Expected Loss	Expected Loss
\$8.1	\$2.8
Median (1:2)	Median (1:2)
\$0.1	\$0.0
90% (1:10)	90% (1:10)
\$21.5	\$6.5
95% (1:20)	95% (1:20)
\$40.5	\$12.9
99% (1:100)	99% (1:100)
\$108.1	\$40.8
99.9% (1:1,000)	99.9% (1:1,000)
\$272.3	\$152.8
Max (1:10,000)	Max (1:10,000)
\$456.7	\$304.0

## 8. Committee Brief: Credit – Potential Future Exposure: Stress Case – \$14 Flat Natural Gas Price Strip – Randy Baker

### Simulations using Q3-2009 Financials

Potential Credit Loss - Base Case  
(\$Millions)



Q3-2009 Stress Case (\$14.00 avg. NG strip)  
 Q3-2009 Base Case (\$5.566 avg. NG strip)

Horizon (in days)  
Simulations

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

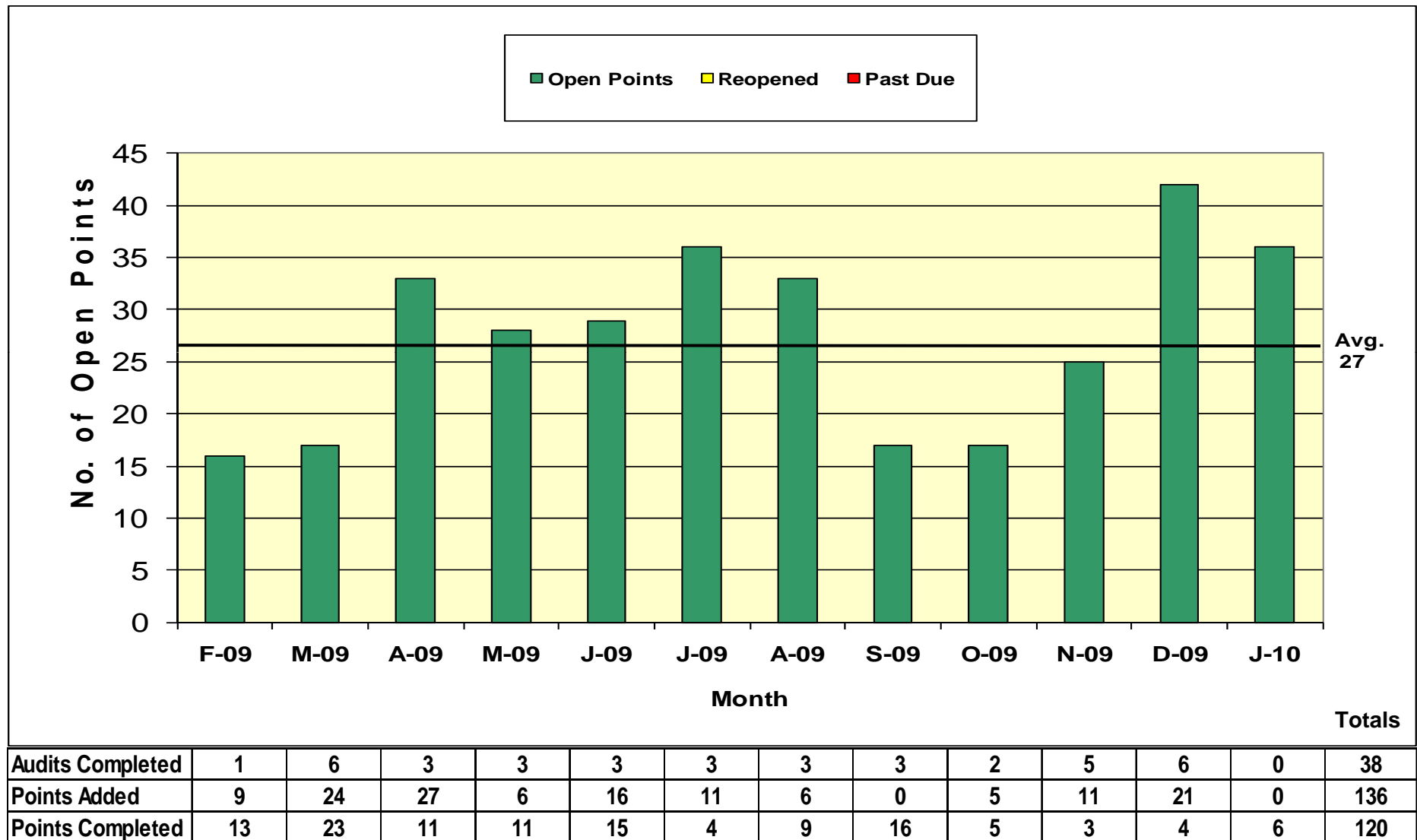
(\$Millions)

Expected Loss  
 Median (1:2)

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

	Q3-2009 <b>Stress Case</b>	Q3-2009 Base Case
Horizon (in days)	365	365
Simulations	10,000	10,000
Total defaults	44,291	44,782
Simulations with defaults	9,535	9,546
Simulations without defaults	465	454
Default simulations with zero loss	3,793	3,670
Total simulations with zero loss	4,258	4,124
Expected Loss	\$5.4	\$2.8
Median (1:2)	\$0.1	\$0.0
90% (1:10)	\$14.4	\$6.5
95% (1:20)	\$25.7	\$12.9
99% (1:100)	\$72.4	\$40.8
99.9% (1:1,000)	\$172.6	\$152.8
Max (1:10,000)	\$364.7	\$304.0

## 8. Committee Brief: ICMP - Status of Open Audit Point Cheryl Moseley



All audit points except 2 are expected to be complete by 7/31/10.

## 8. Committee Brief: ICMP - Audits

Cheryl Moseley

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### Audits Completed

(last 3 months)

#### Internal Audits

- Human Resource Metrics
- Internal Control Testing
- Q3 2009 Fraud Auditing
- Protocol 1.4 Required Audit – Ethics Compliance
- Employee Ethics Compliance
- IT Disaster Recovery (Special Request)
- Nodal Contract Management (Special Request)
- Incident/Problem Management REMEDY System
- 2009 Nodal Budget-to-Actual Mgmt. (Special Request – Follow-up)

#### External Audits

- 2009 SAS70 Audit (Pricewaterhouse Coopers)

### Open Audits

#### Internal Audits

- Taylor Data Center Expansion (Special Request)
- New Data Center & Control Center (Special Request)
- FY2009 Fraud Auditing Program
- System Operators' Compliance with Operating Procedures (Limited Scope)
- Business Continuity Plan

#### External Audits

- 2009 Financial Audit (Ernst & Young, LLP)

### Planned Audits

(next 3 months)

#### Internal Audits

- Nodal Program Spending
- 2010 Nodal Budget-to-Actual Mgmt. (Special Request – Follow-up)
- Oracle Software License Compliance (Special Request)
- Q1 2010 Fraud Auditing Program
- Protocol 1.4 Required Audit – Independence Verification
- Protocol 1.4 Required Audit – Confidentiality Compliance

#### External Audits

- 2010 SAS70 Audit (SAS70 Solutions, Inc.)

## 8. Committee Brief: ICMP - Security Assessments

Cheryl Moseley

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### **Consultation/Analysis Reports Completed**

(last 3 months)

#### **External Assessments**

- Assessment of Nodal NMMS

### **Open Consultation/ Analysis Reviews**

#### **External Assessments**

- Assessment of Nodal Systems
































### **Planned Consultation/ Analysis Reviews**

(next 3 months)

#### **External Assessments**

- 1 Security Assessment planned

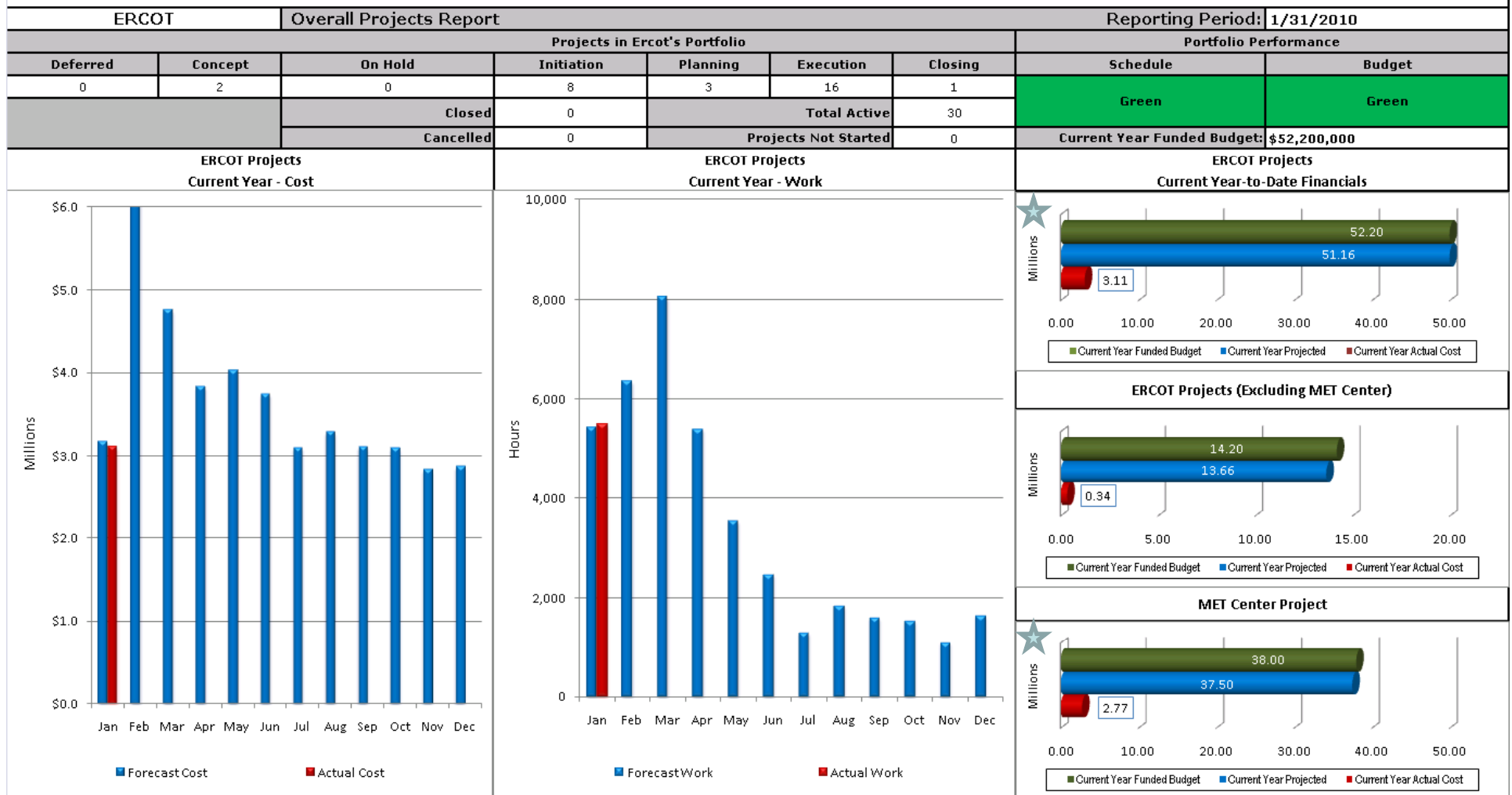
**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**RISK MANAGEMENT EVENT PROFILE MATRIX (as of February 1, 2010)**

 <b>Strategic</b>	 <b>Operational Excellence</b>	 <b>Market Facilitation</b>	 <b>Grid Reliability</b>	 <b>Reporting</b>	 <b>Legal and Regulatory Compliance</b>
 <b>Strategy Development</b> Corporate objective setting adequately incorporates informed stakeholder input, market realities and management expertise.	 <b>Performance Monitoring</b> Clearly defined and actively monitored performance metrics linked to mission and goals. Performance status communicated and corrective action taken.	 <b>Customer Choice</b> Market design promotes efficient choice by customers of energy providers with effective mechanisms to change incumbent market participants as desired.	 <b>Grid Operations</b> Information required to operate the grid is efficiently gathered. Appropriate tools are prudently configured to efficiently operate the system.	 <b>Review Practices</b> Prudent measures are taken to insure that company disclosures are properly vetted and not misleading.	 <b>Legal &amp; Legislative</b> Operations are conducted in compliance with all laws and regulations. Impacts of current and proposed legislation are understood and communicated.
 <b>Mission and Goals</b> Corporate objectives and performance standards are understood and followed.  To help ERCOT evaluate its needs post-Nodal go-live, ERCOT has hired a consultant (Market Reform) to perform an organizational assessment. Work on the study began February 1 and is expected to be completed by end of April.	 <b>Business Practices</b> Business planning, processes and management standards are effective and efficient.	 <b>Nodal Implementation Project</b> Nodal Implementation on budget on schedule, and within defined scope.  Market trials for real time markets began on Feb 1. The first monthly CRR auction (for March) is on schedule to begin on February 12. We continue to leverage overtime, prioritize testing and perform issue analysis testing in a parallel environment to reverse the 2 week slippage to the Phase 5 testing schedule.	 <b>Planning</b> Long-range planning methods enable efficient responses to system changes that are necessary to maintain reliability standards.  Demand for planning studies exceeds ERCOT's ability to perform them. A list of studies desired by ERCOT and Stakeholders has been prepared & reviewed, with a plan in place to conduct them. However, requests for additional studies from various stakeholders continue. ERCOT has received two awards totaling \$3.5 million to produce long-term resource and transmission planning studies in 2011.	 <b>Disclosure</b> Reporting and other disclosures to intended parties is timely, accurate and effective.	 <b>Internal Control Compliance</b> Internal Control Compliance processes and management standards are effective, efficient, and provide stakeholders with required assurances of quality.  ERCOT is developing processes to institutionalize the ongoing training on current policies and procedures for all ERCOT staff and contract workers.
 <b>Reputation</b> Positive perceptions by stakeholders lead to less cost and greater flexibility resulting in enhanced enterprise value.  ERCOT is addressing reputation issues by 1) refocusing communication efforts (e.g. expanding the CEO Report to the BOD to include more details on ERCOT successes and disappointments), 2) continuing to complete Nodal on time and on budget, 3) preparing a well thought out budget for 2011, and 4) increasing accountability.	 <b>Workforce</b> Organization design, managerial and technical skills, bench strength and reward systems aligned with corporate goals.  The rolling 12-month voluntary turnover fell to 2.6%. ERCOT readiness continues to make progress on the skills and training required for Nodal success. Strong demand for subject matter experts and technical positions continues. As of the end of December ERCOT was seeking to fill 15 full-time positions, and 11 summer intern positions.	 <b>Counterparty Credit</b> Maintain credit risk exposure for overall market within acceptable limits.  Credit risk reflected by the PFE model has been fairly consistent for the current market over the past year and stakeholders have had the opportunity to review these results. 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.	 <b>Bulk System Resources</b> Market Participants construct and make available adequate bulk electric grid resources.  December Update of the Capacity, Demand and Reserve report forecasts reserve margins in the "out years" (2014 and 2015) to fall below the 12.5% target.	 <b>Communication</b> Internal & external communications are timely and effective.	 <b>Industry Standards</b> Business and operational activities are in compliance with all applicable regulatory, financial and accounting requirements, standards and directives.  ERCOT has yet to receive the confidential draft for the second part of the 2009 NERC audit. ERCOT received notice of TRE Protocol / Operating Guide audit in late December covering Jun-07 through Feb-10 time period. The Protocol Audit is scheduled on February 23-25, 2010, covering 54 requirements.
 <b>Fiscal Management</b> ISO design requires competent, prudent and cost effective provision of services.  2010 electric loads are trending above budget for the first month of the year. Management continues to closely monitor costs and revenues to ensure they are in alignment.	 <b>Technology Infrastructure</b>  Information systems, supporting facilities and data are effectively managed and are reliable.	 <b>Administration, Settlement &amp; Billing</b> Market rules fairly applied to all participants. Accounting is timely and accurately reflects electricity production and delivery.	 <b>Operational Responsibility</b> Market participant conduct their operations in a manner which facilitates consistent grid reliability.  There is still a lack of consensus over reactive power and frequency response requirements to existing wind generation resources.	 <b>Adequacy and Integrity</b> Robust processes exist to support management assertions embodied within financial reports.	 <b>Regulatory Filings</b> Evidence, testimony and other supporting materials are compelling and successful.



## 8. Committee Brief: PMO David Troxtell

### ERCOT Enterprise Projects Summary Report



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



February 16, 2010

Finance & Audit Committee Meeting

**ERCOT**  
**Summary of Investments**  
**January 31, 2010**

(in 000's)

<u>Investment Account</u>	<u>Chase</u> <i>Treasury and Repo</i>	<u>Federated</u> <u>068</u> <i>Treasury and Repo</i>	<u>Federated</u> <u>0125</u> <i>Treasury only</i>	<u>Evergreen</u> <u>497</u> <i>Treasury and Repo</i>	<u>Invesco</u> <i>Treasury and Repo</i>	<u>BlackRock</u>	<u>Subtotal</u>
Operating	\$ 7,986	\$ 5	\$ -	\$ -	\$ -	\$ -	<b>7,991</b>
TRE	2,498	1,267	-	-	-	-	<b>3,766</b>
Market	10,798	1,215	15	15	15	5	<b>12,063</b>
Deposit/Restricted	1,376	14,737	12,000	6,001	47,005	47,006	<b>128,126</b>
<b>Total Investments</b>	<u>\$ 22,658</u>	<u>\$ 17,225</u>	<u>\$ 12,015</u>	<u>\$ 6,016</u>	<u>\$ 47,020</u>	<u>\$ 47,011</u>	<u>\$ 151,945</u>
% Investments:	14.9%	11.3%	7.9%	4.0%	30.9%	30.9%	100.0%
Other Cash Net of Outstanding Checks							<u>\$ (2,716)</u>
Total Cash and Cash Equivalents							<u><u>\$ 149,229</u></u>

### **Future Agenda Items – March 2010**

- **Standing Internal Audit agenda items**
- **Committee briefs**
- **Future agenda items**

## 9. Future Agenda Items: F&A 2010 Yearly Schedule

### Roy Bowman

#### 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 ERCOT Annual Report
- 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

#### Quarter 3

- Appoint the independent auditors for upcoming year
- Approval of independent auditor fees for upcoming year
- Review of committee charter
- Approve the Guidelines for Engagements of External auditors for Other Services (pre-approval policy)
- 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
- Review updated year-end forecast

#### 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 policies
- 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 updated year-end forecast
- 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