



ERCOT Finance & Audit Committee Meeting
7620 Metro Center Drive, Austin, Texas
Met Center, Conference Room 168
May 20, 2008; 8:15am – 9:50am*

Item #	Agenda Item Type	Description/Purpose/Action Required	Presenter	Time
1.		Call to order Executive Session	C. Karnei	8:15am
2.	Decision required	2a. Approval of executive session minutes (Vote) (04/15/08)	C. Karnei	8:15am
	Decision required	2b. Approval of Internal Audit department charter (Vote)	B. Wullenjohn	8:17am
	Informative	2c. Internal Audit status report	B. Wullenjohn	8:20am
	Informative	2d. Internal Audit 2008 Goals Update	B. Wullenjohn	8:25am
	Informative	2e. EthicsPoint update	B. Wullenjohn	8:30am
	Informative	2f. Review of ERCOT security projects	J. Brenton	8:35am
	Informative	2g. Review insurance coverage(s)	C. Yager	8:50am
		Recess Executive Session		9:00am
		Convene General Session		
3.	Decision required	Approval of general session meeting minutes (Vote) (04/03/08) (04/15/08)	C. Karnei	9:00am
4.	Decision required	Final review of proposed 2009 budget, proposed fees and financial performance measures (Vote)	M. Petterson	9:02am
5.	Decision required	Application of the 2007 actual vs budget revenue requirement variance (Vote)	M. Petterson	9:15am
6.	For discussion	Financial audit – Review/acceptance of final changes	M. Petterson	9:20am
7.	For discussion	Review procedures for handling reporting violations	M. Petterson	9:25am
8.	Informative	Update on Credit Work Group activities	A. List / C. Yager	9:30am
9.	Informative	Committee Briefs (Q&A only)	All	9:40am
10.	Informative	Future agenda items	S. Byone	9:45am
		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, June 17, 2008, at ERCOT, 7620 Metro Center Drive, Austin, Texas 78744, in Room 168.

NOTE: Texas Regional Entity Finance & Audit Committee scheduled to commence at 7:30am, May 20, 2008.

Decision required
For discussion

3. Approval of General Session Minutes Clifton Karnei

- **Approval of General Session Minutes**
 - Vote 04/03/08
 - Vote 04/15/08

DRAFT ERCOT ISO FINANCE & AUDIT COMMITTEE
SPECIAL MEETING MINUTES
Met Center – Austin, Texas

Pursuant to notice duly given, the Finance & Audit Committee of the Electric Reliability Council of Texas, Inc. convened on **April 3, 2008**. **Clifton Karnei** confirmed that a quorum was present and called the meeting to order at approximately **1:30 p.m.**

Special Meeting Attendance

Committee members:

Cox, Brad	Tenaska Power Services	Independent Power Marketer	Present
Espinosa, Miguel (Vice Chair)	Unaffiliated Board Member	Unaffiliated Board Member	Present
Fehrenbach, Nick	City of Dallas	Consumer	Present (via phone)
Gent, Michehl	Unaffiliated Board Member	Unaffiliated Board Member	Present (via phone)
Jenkins, Charles	Oncor Electric Delivery	Investor Owned Utility	Not Present
Karnei, Clifton (Chair)	Brazos Electric Cooperative	Cooperative	Present (via phone)
Thomas, Robert	Green Mountain Energy	Ind. Retail Electric Provider	Present
Wilkerson, Dan	Bryan Texas Utilities	Municipal	Present

Other Board Members and Segment Alternates:

Armentrout, Mark	Unaffiliated Board Member	Unaffiliated Board Member	Present
Crowder, Calvin	American Electric Power Service Corporation	Investor Owned Utility	Present
Kahn, Bob	ERCOT	ERCOT CEO	Present
Smitherman, Barry	PUCT	PUCT Chair	Present
Walker, Mark	NRG Texas	Independent Generator	Present

ERCOT staff and guests present:

Anderson, Troy	ERCOT
Bojorquez, Bill	ERCOT
Brenton, Jim (via phone)	ERCOT
Brewer, Todd	TRE
Brewster, Chris	City of Eastland
Byone, Steve	ERCOT
Capezzuti, Nancy	ERCOT
Doolin, Estrellita	ERCOT
Giuliani, Ray	ERCOT
Gable, Mike	ERCOT
Grendel, Steve	ERCOT
Grimm, Larry	TRE
Hancock, Misti	ERCOT
Hinsley, Ron	ERCOT
Lester, Suzanne	ERCOT
Magness, Bill	Casey, Gentz & Magness LLP
Petterson, Mike	ERCOT

Saathoff, Kent	ERCOT
Smallwood, Aaron	ERCOT
Troxell, David	ERCOT
Vincent, Susan	TRE
Wagner, Margarite	Reliant
Yager, Cheryl	ERCOT

Presentation of Proposed 2009 Budget

Steve Byone explained that the purpose of the Special Meeting was to present the proposed 2009 budget and to obtain feedback from Board members and the public. He emphasized that ERCOT management did not take the fee increase request lightly and encouraged attendees to participate in the working session.

Bob Kahn echoed Mr. Byone’s introductory comments and noted that the four drivers of the fee increase were related to (1) Nodal implementation and on-going support, (2) Met Center relocation project, (3) new NERC/FERC requirements, and (4) financing needs.

Mike Petterson facilitated a detailed review of the proposed budget and discussion among attendees. Board members and public attendees asked several questions to which ERCOT management team responded.

At the conclusion of the discussion, Mr. Byone confirmed the feedback received during the meeting would be incorporated into future budget drafts and that the proposed 2009 budget would be included on the agenda for Board approval at the meeting scheduled for May.

Adjournment

Clifton Karnei adjourned the meeting at 2:20 p.m.

Estrellita J. Doolin, Secretary

DRAFT ERCOT ISO FINANCE & AUDIT COMMITTEE
General Session MEETING MINUTES
Met Center – Austin, Texas

Pursuant to notice duly given, the Finance & Audit Committee of the Electric Reliability Council of Texas, Inc. convened on **April 15, 2008**. **Miguel Espinosa** confirmed that a quorum was present and called the meeting to order at approximately **7:30 a.m.** The Committee met in Executive Session from **7:30 a.m.** to **8:15 a.m.**

General Session Attendance

Committee members:

Cox, Brad	Tenaska Power Services	Independent Power Marketer	Present
Espinosa, Miguel (Vice Chair)	Unaffiliated Board Member	Unaffiliated Board Member	Present
Fehrenbach, Nick	City of Dallas	Consumer	Present
Jenkins, Charles	Oncor	Investor Owned Utility	Present
Karnei, Clifton (Chair)	Brazos Electric Cooperative	Cooperative	Present (via phone)
Thomas, Robert	Green Mountain Energy	Ind. Retail Electric Provider	Present
Wilkerson, Dan	Bryan Texas Utilities	Municipal	Present

Other Board Members and Segment Alternates:

Bartley, Steve	CPS Energy	Municipal	Present
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ERCOT staff and guests present:

Anderson, Troy	ERCOT
Barry, Sean	PwC
Bassett, Ryan	PwC
Brenton, Jim	ERCOT
Byone, Steve	ERCOT
Doolin, Estrellita	ERCOT
Gillmore, Gina	ERCOT
Grable, Mike	ERCOT
Greer, Clayton	J. Aron & Company
Hancock, Misti	ERCOT
Kolodziej, Eddie	Custom Energy Solutions
Lester, Suzanne	ERCOT
Moseley, Cheryl	ERCOT
Pettersen, Mike	ERCOT
Ross, Valerie	ERCOT
Spacek, Misty	ERCOT
Symington, Bob	ERCOT
TroxteLL, David	ERCOT
Vincent, Susan	Texas RE
Wullenjohn, Bill	ERCOT
Yager, Cheryl	ERCOT

Approval of Previous Minutes

Nick Fehrenbach moved to approve the minutes for the General Session of the Finance & Audit Committee meeting held March 18, 2008; **Steve Bartley** seconded the motion. The motion passed unanimously.

2009 Budget, Proposed Fees and Financial Performance Measures

Steve Byone referred to the 2009 budget and supporting details and assumptions (distributed to Board members prior to the meeting) and responded to questions. He noted several key factors driving the preliminary 2009 budget increase and agreed to further summarize some of the supporting details and include the summary with the materials for the May Board meeting.

Clifton Karnei moved to recommend that the Board approve the proposed 2009 budget presented by staff; **Dan Wilkerson** seconded the motion. The motion passed unanimously.

Annual Financial Audit Update

Sean Barry and Ryan Bassett of PricewaterhouseCoopers (PwC) briefed the Committee on the status of the 2007 annual financial statement audit. They explained that the final steps in the audit were not complete, but that they expected the audit to be unqualified or “clean” and complete in the next several days. They also noted that they did not expect the financial statements to change materially. After a robust discussion of the options (accept the financial statements as presented by PwC or postpone acceptance until a future date and work with lenders to seek waivers of debt covenants relating to the timing of the availability of audited financial statements). **Nick Fehrenbach** moved to recommend the Board accept the 2007 audited financials and PwC Report on Audit of Financial Statements for the Years Ended December 31, 2007 and 2006 provided that the final version of the Report is not materially changed from the near-final version reviewed by the Finance & Audit Committee on April 15, 2008, where a material change would be: (1) any change in the net income; (2) a change of more than \$1 million in any other aspect, as approved by the Chair and Vice-Chair of the Finance & Audit Committee, of the financial statements; or (3) any qualification of the audit opinion. **Miguel Espinosa** seconded the motion. The motion passed unanimously.

Credit Work Group Update

Cheryl Yager reviewed a timeline for the CWG and TAC review of a proposed Market Credit Risk Standard. She noted that following the timeline would allow a draft of the proposed Standard to be available for the Committee to review at its June meeting.

Treasury Update

Cheryl Yager referred to the Summary of Investment Results (for the first quarter 2008) and noted that staff was considering moving cash held as collateral to a different fund. She indicated that she would check with the CWG as to whether they would prefer to use a prime fund or continue to use a governmental fund for cash collateral. She informed the Committee that the swap agreement previously authorized by the Committee had been executed. She also reviewed facts around an external attempt to defraud ERCOT and the controls in place that protect ERCOT cash assets.

Committee Briefs

Staff provided written reports with information for the following areas:

1. ERCOT Market Credit Status

2. Internal Control Management Program (ICMP)
3. Enterprise Risk Management (ERM)
4. Project Management Organization (PMO)

Future Agenda Items

Steve Byone noted the following future agenda items:

1. Annual report
2. Procedures for handling reporting violations
3. Insurance coverage(s)
4. Revised Nodal market implementation surcharge
5. 2009 budget, proposed fees and financial measures
6. Credit Work Group activities
7. ERCOT Security projects

Adjournment

Miguel Espinosa adjourned the meeting at 9:25 a.m.

Estrellita J. Doolin, Secretary

4. Final Review of Proposed 2009 Budget, Fees & Financial Performance Measures (Vote) – Mike Petterson

- **Board decision template and budget presentation materials are available in conjunction with Board agenda item #10a**
- **Finance & Audit Committee charter provides that after review of ERCOT staff's recommended budget, the Committee shall recommend to the Board:**
 1. Staffing level
 2. Proposed budget
 3. Proposed fees
 4. Proposed financial performance measures
 - Committee discussion and vote regarding recommendation to the Board

5. Application of the 2007 Actual vs. Budget Revenue Requirement Variance (Vote) – Mike Petterson

	<u>Amount</u> <u>(\$000s)</u>
<u>Actual revenue requirement</u>	
<i>Operating expense</i>	
Total operating expenses	\$ 149,656
Less:	
Depreciation	33,898
Amortization of regulatory asset	<u>32,034</u>
Adjusted total operating expenses	<u>83,724</u>
<i>Debt Service</i>	
Senior notes principal payment	13,637
Term loan principal payment	12,500
Interest expense	<u>5,474</u>
Debt service	31,611
<i>Revenue-funded projects</i>	
Project expenditures	42,900
Targeted revenue funding	<u>40%</u>
Revenue-funded projects	<u>17,160</u>
<i>Total actual revenue requirement</i>	<u>132,495</u>
<u>Actual revenue and interest income</u>	
<i>System Administration Fee</i>	130,155
<i>Other income</i>	3,737
<i>Interest income</i>	<u>1,138</u>
<i>Total actual revenue and interest income</i>	<u>135,030</u>
<u>Favorable 2007 Financial Variance</u>	<u>\$ 2,535</u>

- **Decision template regarding utilization of favorable 2007 financial variance can be found under Board agenda item 10b.**

5. Application of the 2007 Budget vs. Actual Revenue Requirement Variance (Vote) - Mike Petterson

OPTIONS	PROS / CONS	IMPLICATIONS / APPROVALS
Fund 2008 expenditures incurred in connection with the Met Center relocation initiative	Relatively easy to implement. Enables ERCOT to satisfy Finance and Audit Committee preference to revenue-fund 40% of 2008 project expenditures. Lowest cost to the market.	Finance and Audit Committee approval. Board authorization required for early pay down of long-term debt. <u>ERCOT STAFF RECOMMENDATION</u>
Reduce long-term debt or reduce debt-funding of 2008 projects.	Relatively easy to implement. Historical practice at ERCOT Lowest cost to the market.	Finance and Audit Committee approval. Board authorization required for early pay down of long-term debt.
Increase 2008 project funding to above \$47.6 million	Moderately difficult to implement. Disruption to on-going fee filing proceeding. Higher cost to the market as a result of borrowing costs.	Finance and Audit Committee approval. Reprioritization of the Project Priority List by market participants and Board Committees, Board of Directors, and PUCT.
Issue a refund to QSEs	Difficult to implement. Difficult to devise an acceptable, equitable method of refunding money to the market. Long implementation time Potential windfall to QSEs with no discernable flow-through benefit to consumers. Higher cost to the market as a result of borrowing costs.	Finance and Audit Committee approval. Board approval. Regulatory approval needed for all changes – increases and decreases to ERCOT fees.
Temporarily reduce the ERCOT System Administration Fee	Difficult to implement. Long implementation time. Disruption to on-going fee filing proceeding. Higher cost to the market as a result of borrowing costs.	Finance and Audit Committee approval. Board approval. Regulatory approval needed for all changes – increases and decreases to ERCOT fees.

6. Financial Audit – Review/Acceptance of Final Changes

Mike Petterson

- At the April 15, 2008 Board meeting, it was resolved that the Board accepted the ERCOT audited financial statement report, provided that the final version of the report is not materially changed from the near-final version reviewed by the Finance & Audit Committee on the same day
- On April 24, 2008, the Chair and Vice-Chair of the Finance & Audit Committee met to review the final version of the audit report and concluded that the report was not materially changed from the near-final version reviewed on April 15, 2008.
- Consistent with Board resolution, following conclusion of the Chair and Vice Chair of the Finance & Audit Committee, the final version of the audit report is deemed accepted by the ERCOT Board.

7. Review Procedures for Handling Reporting Violations

Mike Petterson

- Employees may report their concerns via a number of sources, including:
 - **Manager or Director**
 - **Human Resources**
 - **Legal**
 - **Internal Audit**
 - **EthicsPoint** (anonymous)
 - **PUCT**
 - **Board Members**
- Employees receive training to ensure they are aware of these options
- Reiterated during annual Ethics Reaffirmation process

- **CWG has reviewed the draft Market Credit Risk Standard and model inputs. The group believes the following :**
 - It is premature to establish a Standard around credit risk at this time
 - Before a Standard around credit risk is established:
 - Model results should be reviewed by ERCOT staff at least weekly and reported to CWG at least monthly for a minimum of 12 months before a Standard is established (including at least 6 months in the Nodal market)
 - CWG members should vet model parameters with their internal subject matter experts

- **Additional points taken from written comments from CWG members:**
 - Model to incorporate guarantees as an extension of credit and not as a type of collateral
 - ERCOT's actions in the event limits are breached
 - Credit scoring portion of the model is still under consideration by CWG
 - Model inputs have not been adequately configured or tested and they compromise the legitimacy of default risk factors

Q&A only

- **1991 - ERCOT granted tax-exempt status under section 501(c)(6) of the Internal Revenue Code**
- **2006 – ERCOT applied for tax-exempt status under section 501(c)(4) of the Internal Revenue Code**
 - More appropriate classification given ERCOT’s responsibilities
 - Exempt from Texas sales and use tax with potential for retroactive application
- **2008 – ERCOT granted tax-exempt status under section 501(c)(4) of the Internal Revenue Code**
 - Effective date of April 4, 2000
 - Taking steps to effectuate the change in tax-exempt status

ERCOT Market Credit Status

as of 3/31/2008

as of 4/30/2008

Exposure in the ERCOT Market (owed to ERCOT)

QSEs that meet ERCOT Creditworthiness Standards

Ratings over BBB-

# of QSEs*	Estimated Aggregate Liability (\$)	% of EAL	Total Unsec Credit Limit / Security Posted	
10	34,230,373	8%	104,483,796	U
<u>QSEs that do not meet ERCOT Creditworthiness Standards</u>				
Ratings below BBB- or not rated				
Cash & Letters of Credit	48	200,441,762	44%	305,967,817 S
Guarantee Agreements	18	216,816,048	48%	553,446,393 S
Total Exposure	76	451,488,183	100%	

# of QSEs*	Estimated Aggregate Liability (\$)	% of EAL	Total Unsec Credit Limit / Security Posted	
10	66,060,616	12%	97,031,390	U
<u>QSEs that do not meet ERCOT Creditworthiness Standards</u>				
Ratings below BBB- or not rated				
Cash & Letters of Credit	49	193,516,430	36%	324,774,304 S
Guarantee Agreements	16	284,140,779	52%	488,446,393 S
Total Exposure	75	543,717,825	100%	

Other QSEs in the ERCOT Market (ERCOT owes)

QSEs that meet ERCOT Creditworthiness Standards

Ratings over BBB-

QSEs that do not meet ERCOT Creditworthiness Standards

Ratings below BBB- or not rated

Cash & Letters of Credit

Guarantee Agreements

6	(3,056,496)	-4%	32,953,810	U
<u>QSEs that do not meet ERCOT Creditworthiness Standards</u>				
Ratings below BBB- or not rated				
Cash & Letters of Credit	57	(55,384,519)	-78%	86,771,894 S
Guarantee Agreements	7	(12,402,082)	-18%	139,500,000 S
Total	70	(70,843,097)	-100%	

7	(5,663,891)	-8%	52,453,810	U
<u>QSEs that do not meet ERCOT Creditworthiness Standards</u>				
Ratings below BBB- or not rated				
Cash & Letters of Credit	56	(46,158,040)	-65%	91,620,584 S
Guarantee Agreements	8	(19,621,628)	-28%	214,500,000 S
Total	71	(71,443,559)	-100%	

Total

146

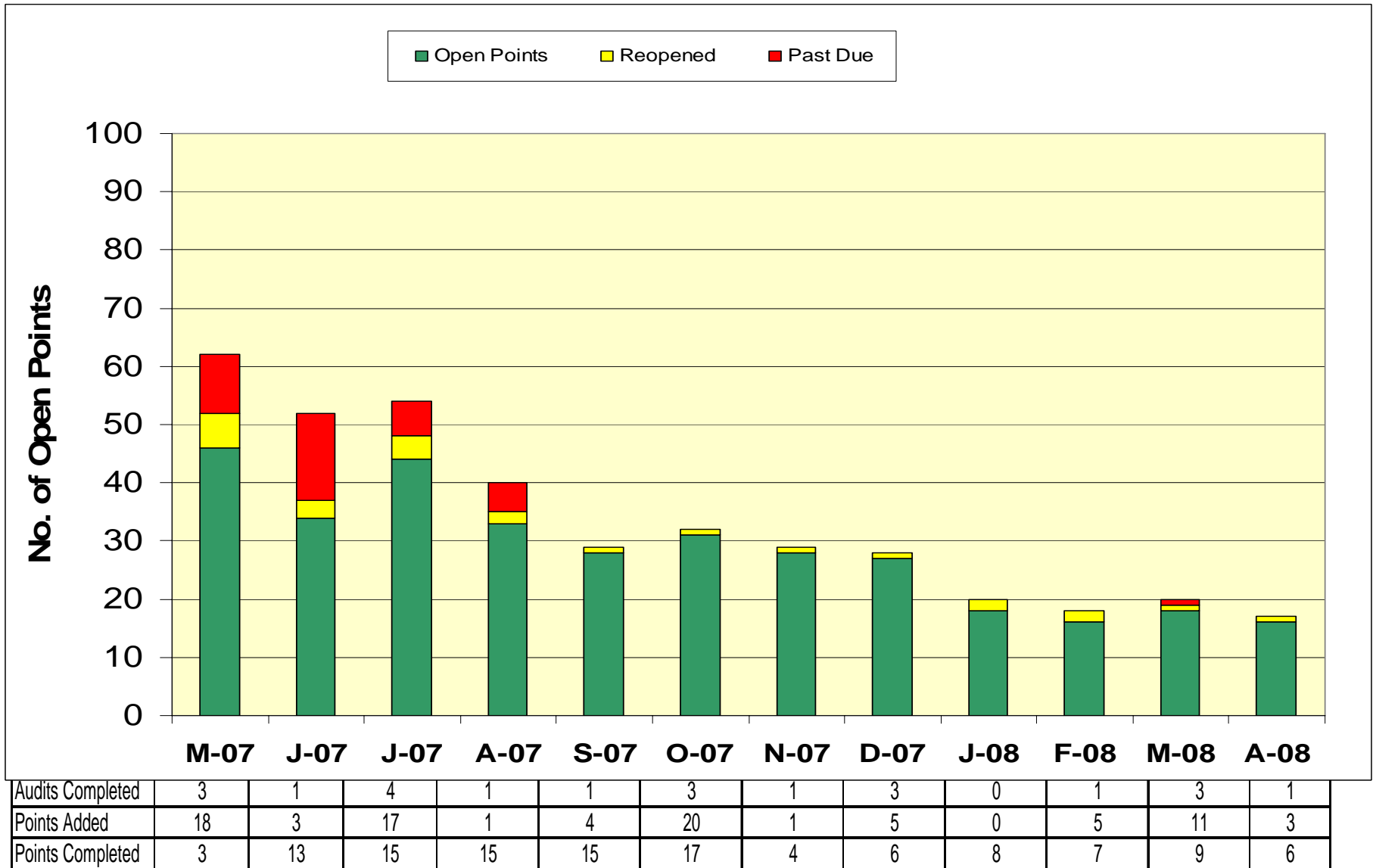
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U: Unsecured since these QSEs meet the creditworthiness standards

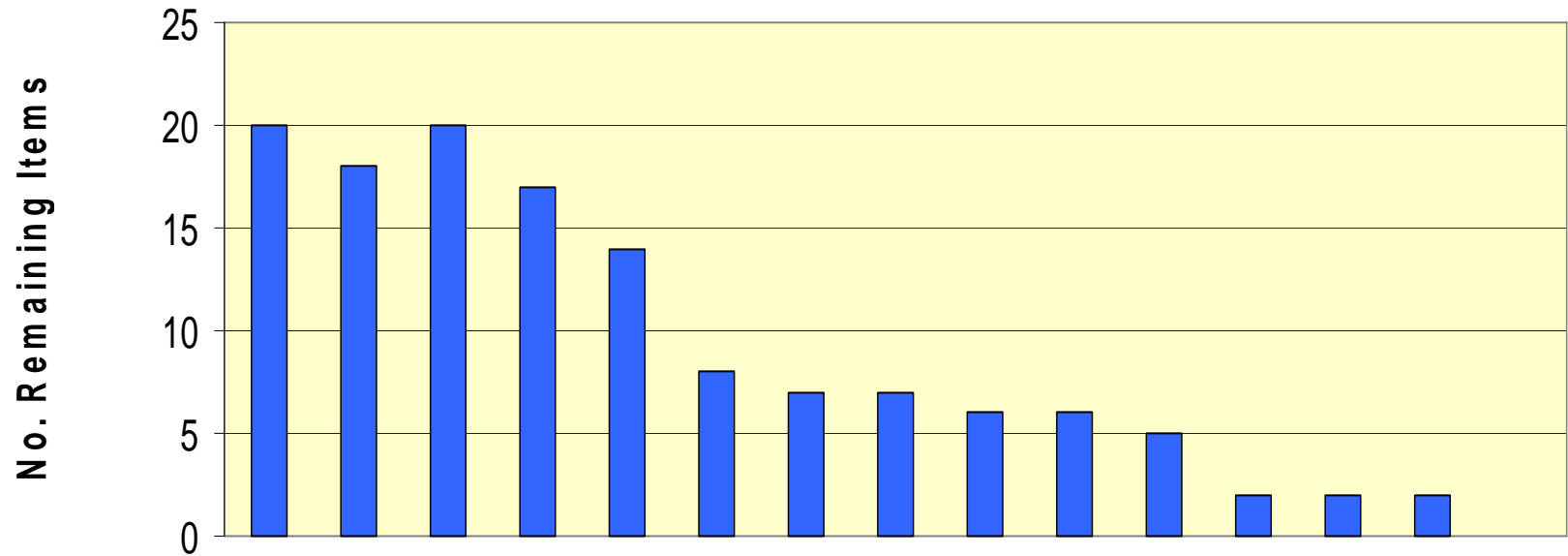
S: Secured i.e. required to post collateral since these QSEs do not meet the creditworthiness standards

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

Cheryl Moseley



Projected Audit Point Progress



	J-08	F-08	M-08	A-08	M-08	J-08	J-08	A-08	S-08	O-08	N-08	D-08	J-09	F-09	M-09
Audit Points	20	18	20	17	14	8	7	7	6	6	5	2	2	2	0

Audits Completed

(last 3 months)

Internal Audits

- 2007 Fraud Auditing Program Review
- Nodal Contractor Time Reporting
- MarkeTrak
- Year-end Accrual Validations (Special Request)
- Contractor Ethics
- Business Continuity Plan
-

External Audits

- Texas Nodal Program Controls – Review #5 (IBM - Managed by IAD)
- QA Review of Internal Audit (Institute of Internal Auditors)
- 2007 Financial Audit (Pricewaterhouse Coopers)

Open Audits

Internal Audits

- Audit Required by Protocol 1.4 (Confidentiality Compliance)
- Nodal Project SOWs
- Nodal Compliance w/Procurement Guidelines
- Texas Nodal Program Controls – Review #7 (IAD performing fieldwork under direction of IBM)

External Audits

- Texas Nodal Program Controls – Review #6 (Nodal Readiness Evaluation) (IBM - Managed by IAD)
- Texas Nodal Program Controls – Review #7 (Nodal Readiness Evaluation) (IBM - Managed by IAD)

Planned Audits

(next 3 months)

Internal Audits

- Nodal Spending
- Pre-Audit Testing for the Nodal 2009 SAS70 Audit
- Fixed Assets (Review of Plan to Control Personal Computers)
- NERC Critical Infrastructure Protection Standards – Pre-Audit Testing (Special Request)

External Audits

- Benefit Plan Audit (Maxwell, Locke & Ritter)

**Consultation/
Analysis Reports
Completed**
(last 3 months)

External Assessments

**Open Consultation/
Analysis Reviews**

External Assessments

**Planned Consultation/
Analysis Reviews**
(next 3 months)

External Assessments

1 security assessment
planned – start in 2 weeks
1 security assessment
planned for Nodal

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
RISK MANAGEMENT EVENT PROFILE MATRIX (as of May 1st, 2008)**

Strategic Risks	Operational Excellence	Market Facilitation	Grid Reliability	Reporting Risk	Legal and Regulatory Compliance Risks
Strategy Development Corporate objective setting adequately incorporates informed stakeholder input, market realities and management expertise.	Performance Monitoring Clearly defined and actively monitored performance metrics linked to mission and goals - Performance status communicated and corrective action taken.	Customer Choice Market design promotes efficient choice by customers of energy providers with effective mechanisms to change incumbent market participants as desired.	Grid Operations Information required to operate the grid is efficiently gathered. Appropriate tools are prudently configured to efficiently operate the system.	Review Practices Prudent measures are taken to insure that company disclosures are properly vetted and not misleading.	Legal & Legislative Operations are conducted in compliance with all laws and regulations. Impacts of current and proposed legislation are understood and communicated.
Mission and Goals Corporate objectives and performance standards are understood and followed.	Business Practices Business planning, processes and management standards are effective and efficient.	Nodal Implementation Project Nodal Implementation on budget on schedule, and within defined scope.	Planning Long-range planning methods enable efficient responses to system changes that are necessary to maintain reliability standards.	Disclosure Reporting and other disclosures to intended parties is timely, accurate and effective.	Internal Control Compliance Internal Control Compliance, processes and management standards are effective and efficient.
New Strategic Plan needs to be integrated into the latest business planning cycle.	Emergency Management Corporate Standard approved by Executive Review Team. Revisions to Business Continuity, Emergency Response and Pandemic Preparedness plans complete and approved. High level Business Continuity training completed. High level Business Continuity and Emergency Response Drill completed. Disaster Recovery Plans for Energy and Market Management systems are complete, approved and system tested. DR plans and testing (table top only) completed for commercial/corporate applications except Exchange and Citrix which have a plan but have not been tested. Focus will now include Nodal systems.	Scope and schedule remain unchanged (green and amber respectively). Budget risk is green pending final order from the Public Utility Commission of Texas approving ERCOT's request to change the budget to \$319.5 million. Delays in the delivery of Common Information Model (CIM) is the most significant issue facing the program. All efforts are being made to bring this aspect of the program back in line. A significant software drop for the market management system was received by April 22 and is the last of the major software deliveries, with the exception of the CIM importer. All significant infrastructure changes have been made. ERCOT remains on schedule to reach the December 1 go-live date for Nodal.	Due to high number of vacancies in engineering positions, the ongoing requirements of the CREZ Transmission Optimization (CTO) Study and the continued higher than normal volume of generation interconnection requests in the five-year horizon, the Long Term System Assessment (L TSA) work has not started. We expect to start the L TSA study following the conclusion of the support for the CREZ case at the PUCT.	Reporting and other disclosures to intended parties is timely, accurate and effective.	The Internal Control department (ICMP) has developed an initial plan for business process training for certain areas. ICMP is working with the business process owners and HR to set up company-wide training for delivery in 2008.
Reputation Positive perceptions by stakeholders lead to less cost and greater flexibility resulting in enhanced enterprise value.	Workforce Organization design, managerial and technical skills, bench strength and reward systems aligned with corporate goals.	Counterparty Credit Maintain credit risk exposure for overall market within acceptable limits.	Bulk System Resources Market Participants construct and make available adequate bulk electric grid resources.	Communication Internal & external communications are timely and effective.	Industry Standards Business practices provide stakeholders with required assurances of quality.
Increased publicity associated with the implementation of the Nodal market and anticipated new fee filings for the nodal surcharge and System Administration fee have the potential to negatively impact ERCOT's reputation.	ERCOT continues to face a tight demand for the skill sets of many of our employees. New requisitions increased as managers prepare for the 168 hour test. We hired 18 new employees in March and should have a very strong hiring month in April. We experienced low turnover in the past two months; however, we continue to expect turnover to be a concern this year as market participants prepare for nodal implementation. We have identified a number of contractors who will no longer be needed in their current nodal implementation role, who have expressed interest in becoming employees at ERCOT. ERCOT is currently meeting the objective for training, staffing and nodal preparedness.	At the BOD's request, the Credit Work Group is working on a market credit risk appetite statement standard based on the credit loss model presented to the Board in February. A draft standard has been circulated and is being reviewed with stakeholders. A proposal is expected to be submitted to F&A in June, as requested.	ERCOT is developing new transmission interconnection solutions for new proposed power plants included in the new CDR update. Two new generation interconnection agreements have been signed since the December 2007 CDR update and will bring reserves above 12.5% through 2010.	Internal & external communications are timely and effective.	Initiation of ERO/TRE reliability standard Compliance Monitoring and Regional Entity Compliance Program in June introduces additional audit and penalty risks which ERCOT is still assessing. Although current decentralized compliance activities are adequate, ERCOT is in the process of centralizing the compliance function to provide more focus on these issues.
Fiscal Management ISO design requires competent, prudent and cost effective provision of services.	Technology Infrastructure Information systems, supporting facilities and data are effectively managed and are reliable.	Administration, Settlement & Billing Market rules fairly applied to all participants. Accounting is timely and accurately reflects electricity production and delivery.	Operational Responsibility Market participant conduct their operations in a manner which facilitates consistent grid reliability.	Adequacy and Integrity Robust processes exist to support management assertions embodied within financial reports.	Regulatory Filings Evidence, testimony and other supporting materials are compelling and successful.
	Infrastructure environment has been stable since the move to the new IBM (AIX) equipment. Performance has been at or above expectations in most areas. Reliability has been outstanding. Data Center constraints still exist and will be tight until Taylor Data Center expansion and replacement of Met Data Center is complete. Storage requirements continue to grow at a very high rate. An outside review has been ordered to look into storage demands and to ensure ERCOT is doing all possible to control the growth and efficiently manage the environment.	We currently manage disaster recovery events on a case-by-case basis and will continue to do so to meet stakeholder expectations for accurate and timely processing. A detailed disaster recovery plan with processes and procedures is anticipated upon completion of the Business Continuity project under Steve Grendel.	Response of generators and LaaRs to grid operation events has been improving. Enhanced enforcement of NERC standards and ERCOT Protocols and Operating Guides will exist through the ERO / TRE and IMM which will provide additional incentive for improved performance. Increased wind generation will present additional operational challenges that a study indicated can be met. A wind workshop highlighted several operational issues that ERCOT Staff and Market Participant groups will address in the coming months.		Nodal Implementation and System Admin Fee rate case applications will be filed with PUCT in 2008.

Legend: Elevated Risk Level

Reduced Risk Level

(New Risk Categories / Descriptions Indicated in Green)

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
EVENT PROFILE MATRIX DEFINITIONS**

Strategic Risks	Operational Risks			Reporting Risks	Legal and Regulatory Compliance Risks
	Operational Excellence	Market Facilitation	Grid Reliability		
<p>Strategy Development</p> <p><i>Corporate objective setting adequately incorporates informed stakeholder input, market realities and management expertise.</i></p> <p>Calibrated to Business Climate Risk-Based Resource Allocation Execution Risk Identified & Managed On-Going Event Monitoring Adaptive to Change</p>	<p>Performance Monitoring</p> <p><i>Clearly defined and actively monitored performance metrics linked to mission and goals - Performance status communicated and corrective action taken.</i></p> <p>Capital Project Program Management Effective Use of Dashboards Metrics Linked to Mission and Goals Effective Status Reporting Clear Standards and Expectations Quantifiable Key Performance Indicators</p>	<p>Customer Choice</p> <p><i>Market design promotes efficient choice by customers of energy providers with effective mechanisms to change incumbent market participants as desired.</i></p> <p>Effective Response to Change Requests Timely Communication to Participants</p>	<p>Grid Operations</p> <p><i>Information required to operate the grid is efficiently gathered. Appropriate tools are prudently configured to efficiently operate the system.</i></p> <p>Operator Readiness Communications with MP Data Availability & Accuracy Robust Models and Tools are Utilized Operating Assumptions & Judgment Scheduling Process (Congestion Mgt) Adherence to Standards & Rules</p>	<p>Review Practices</p> <p><i>Prudent measures are taken to insure that company disclosures are properly vetted and not misleading.</i></p> <p>Hierarchy of Internal Reviews Auditor Review Board of Directors Review Notification and Escalation of Emerging Items Management Signoff</p>	<p>Legal & Legislative</p> <p><i>Operations are conducted in compliance with all laws and regulations. Impacts of current and proposed legislation are understood and communicated.</i></p> <p>Contract Administration Comply w/ Applicable Laws, Rules, Regs, Standards Appropriate Legal Review Liability Related to Conduct Fines or Penalties Astute Politically Advocacy Effectiveness Knowledgeable of Legislative Agenda Proposed Rulemaking Practices</p>
<p>Mission and Goals</p> <p><i>Corporate objectives and performance standards are understood and followed.</i></p> <p>Clear Governance and Oversight Comprehensive Policies/Procedures Clarity of Fiduciary Responsibility Stakeholder Management Practices Clear Mission and Synchronized Cross Divisional Prioritization Ethical Practices Portfolio View of Risks (ERM)</p>	<p>Business Practices</p> <p><i>Business planning, processes and management standards are effective and efficient.</i></p> <p>Internal Controls are Effectively Designed & Implemented Business Practices are Cost Effective Responsive to Change Execution Consistency Documentation and Record Keeping Business Continuity & Disaster Recovery Physical Security Standards Safety Practices Adequate Physical Facilities (non-IT)</p>	<p>Nodal Implementation Project</p> <p><i>Nodal Implementation on budget on schedule, and within defined scope.</i></p> <p>Project Timeframe on Schedule Project Progressing within Budget Identified staffing positions filled with appropriate resources Scope of project fully identified Project interdependencies identified</p>	<p>Planning</p> <p><i>Long-range planning methods enable efficient responses to system changes that are necessary to maintain reliability standards.</i></p> <p>Stakeholder Support Planning Assumptions and Processes Data Availability & Accuracy Sufficiency of Models, Forecast and Tools Adherence to Standards & Rules</p>	<p>Disclosure</p> <p><i>Reporting and other disclosures to intended parties is timely, accurate and effective.</i></p> <p>Prepared in Accordance with Relevant Standards Effective Management Reporting Reports are Transparent and Useful</p>	<p>Internal Control Compliance</p> <p><i>Internal Control Compliance, processes and management standards are effective and efficient.</i></p> <p>Internal Control Management Internal Audit Analysis and Findings External Audit Reviews</p>
<p>Reputation</p> <p><i>Positive perceptions by stakeholders lead to less cost and greater flexibility resulting in enhanced enterprise value.</i></p> <p>Publicity Management Political Position High Public Confidence and Trust Management/Employee Creditability Employee Values and Corporate Culture Good Neighbor Practices</p>	<p>Workforce</p> <p><i>Organization design, managerial and technical skills, bench strength and reward systems aligned with corporate goals.</i></p> <p>Priorities Linked to Mission/Objectives Compensation Programs Aligned w/ Objectives and Priorities Employee Training and Development Workforce Planning Adequacy and Competency of Staff Organizational Structure Performance Management</p>	<p>Counterparty Credit</p> <p><i>Maintain credit risk exposure for overall market within acceptable limits.</i></p> <p>MP Credit Worthiness Standards Measurement of exposure QSE Certification/De-certification Process Risk to Market from Sustained/Large Uplifts Proactive identification of risk factors</p>	<p>Bulk System Resources</p> <p><i>Market Participants construct and make available adequate bulk electric grid resources.</i></p> <p>Generation Resource Adequacy & Availability Transmission Resource Adequacy & Availability Reactive Resource Adequacy & Availability Timeliness of Additions / Modifications Fuel Diversity and Availability</p>	<p>Communication</p> <p><i>Internal and external communications are timely and effective.</i></p> <p>Methods are Appropriate for Audience Message Achieves Desired Purpose Effective Delivery Mechanisms Timeliness and Accuracy Message Consistency over time and audiences Responsiveness to Data Request Employee Opinions and Feedback Open Meetings</p>	<p>Industry Standards</p> <p><i>Business practices provide stakeholders with required assurances of quality.</i></p> <p>SAS 70 Audits NERC Reliability Standards ERCOT Operating Guidelines & Protocols</p>
<p>Fiscal Management</p> <p><i>ISO design requires competent, prudent and cost effective provision of services.</i></p> <p>Cash and Liquidity Management Efficient and Defensible Cost Structure Effective Use of Leverage Insurance and Liability Management Fraud Prevention and Detection Robust Financial Projections Effective Budget Analysis</p>	<p>Technology Infrastructure</p> <p><i>Information systems, supporting facilities and data are effectively managed and are reliable.</i></p> <p>Accessibility of Systems Systems Development/Testing Practices Systems Maintenance Practices System Redundancy System Reliability and Performance Efficient Technology Architecture Adequate Physical Facilities (for IT) Data Cleansing and Retention Cyber Security (Data and Systems)</p>	<p>Admin, Settlement & Billing</p> <p><i>Market rules fairly applied to all participants. Accounting is timely and accurately reflects electricity production and delivery.</i></p> <p>Data Management Dispute Resolution Transparent and Defensible Rules Transaction Processing Efficiency Efficient Customer Switching Effective Market Monitoring Error Rates Within Tolerance Billing Dates Consistently Achieved</p>	<p>Operational Responsibility</p> <p><i>Market participant conduct their operations in a manner which facilitates consistent grid reliability.</i></p> <p>Preparation for Weather Events Prudent Maintenance Practices Sufficient Operating Resources Standard Compliance Norms</p>	<p>Adequacy and Integrity</p> <p><i>Robust processes exist to support management assertions embodied within financial reports.</i></p> <p>Completeness Verification methods Valuation and Estimation methods Costs & revenues booked in proper period</p>	<p>Regulatory Filings</p> <p><i>Evidence, testimony and other supporting materials are compelling and successful.</i></p> <p>Advocacy Effectiveness Responsive to Requests Compliance w/ Current Rules Relationship w/ Commission Positions are Supported by Facts</p>

Color Code Methodology for Ranking Residual Risk

- Green** Assessed levels of residual risk on a forward-looking basis for all identified potential occurrences are **fully within management tolerance levels** when all mitigating activities are considered.
- Green-Yellow** Certain identified residual risks are **outside management tolerance** at the present time given current mitigating activities. The total levels of residual risk present a **minimal threat** to jeopardize the goals and objectives of ERCOT and mitigation plans must be in the process of being implemented in order to lower excessive residual risks to tolerable levels within a short period of time not to exceed **two quarters**.
- Yellow** Certain identified residual risks are **outside management tolerance** at the present time given current mitigating activities. There may be more numerous identified risks than lower ratings or the potential consequences may be greater if any single or group of events occurs. The total levels of residual risk are **more than minimal** but still **not likely to jeopardize the goals and objectives** of ERCOT. Mitigation plans must be in the process of being implemented in order to lower any excessive residual risks to tolerable levels within a reasonable period of time not to exceed **four quarters**.
- Yellow-Red** The residual risk of a given category after accounting for all mitigating activities is **significantly outside management tolerance** levels. Identified risks have a reasonable probability of occurring, which **would jeopardize the goals and objectives** of ERCOT. Proposed mitigation activities are either **inadequate** or would not reduce residual risk within an acceptable timeframe; however **expected loss is not imminent** and time is expected to be adequate to address identified residual risks prior to any likely occurrence.
- Red** The residual risk of a given category after accounting for all mitigating activities is **significantly outside of management tolerance** levels. Identified risks have a **substantial probability of occurrence** which **would jeopardize the goals and objectives** of ERCOT. Proposed mitigation activities are either **inadequate** or would **not reduce** residual risk within an acceptable timeframe and there is a substantial probability that an identified residual **risk will occur** prior to the implementation of a mitigation strategy sufficient to lower the overall risk to a degree consistent with acceptable management tolerance levels.

9. Committee Brief – PMO David Troxtell

April 2008 Year to Date Project Activity by Division

	Phase	Not Started	Initiation	Planning	Execution	Closing	Closed	Totals Excluding Non-Active	Cancelled	On Hold	Deferred	Totals by CART	Go-Live* (To Date)	Projected Go-Live (by Y.E.)
CART	Corporate Operations	12	1	7	10	8	2	40	8	0	4	52	3	16
	IT Operations	4	1	0	8	3	2	18	0	0	0	18	5	16
	Market/Retail Operations	1	0	5	7	0	4	17	1	1	13	32	2	12
	System Operations	0	0	1	2	0	2	5	0	0	0	5	1	3
	Totals by Phase	17	2	13	27	11	10	80	9	1	17	107	11	47
	Total Non-Active								27					

* Note: Some projects in Closing and Closed Status went live in 2007

* Note: No Go-live Projects

9. Committee Brief – PMO

David Troxtell



















Year to Date Project Priority List (PPL) Status

PPL Iterations	Origination	Project Phases								Deferred Projects	Subtotal	Grand Total
		Not Started	Initiation	Planning	Execution	Closing	Closed	On Hold	Cancelled			
Original 2008 (October) PPL											64	
	PUCT										0	
	Market			0	2					1	3	
	ERCOT	17	1	8	8	2	2		7	16	61	
Unexpected Carry Over From 2007											30	
	PUCT										0	
	Market				1		1				2	
	ERCOT		1	2	11	5	7	1	1		28	
New Projects Added (Since PPL Approval in October 2007)											13	
	PUCT										0	
	Market			1							1	
	ERCOT			2	5	4			1		12	
2008 PPL Totals to Date											107	
	PUCT	0	0	0	0	0	0	0	0	0	0	
	Market	0	0	1	3	0	1	0	0	1	6	
	ERCOT	17	2	12	24	11	9	1	9	16	101	
Totals by Project Phase		17	2	13	27	11	10	1	9	17	107	

9. Committee Brief – PMO David Troxtell

Projects Over \$1 Million

April 2008 Year to Date

(CART) Project Number and Description	Total Budget	Total Committed	Metrics	
(Duration) Phase (Sponsor)	Scheduled Completion		Schedule	Budget
(IO) PR-70049_01: SAN Hardening	\$880K	\$871K		
(2007) Closed (R. Hinsley)	Go-Live Dec. 2007			
(CO) PR-60099_01: TCC2 Build-Out Phase One <i>Total committed is reduced due to removal of invoices that were incorrectly charged against the project.</i>	\$2.64M	\$2.19M		
(2007) Currently in Closing (B. Kahn)	Go-Live Oct. 2007			
(IO) PR-60055_01: Enterprise Service Management	\$1.61M	\$1.52M		
(2006-2007) Currently in Execution (R. Hinsley)	Go-Live Mar. 2008			
(CO) PR-60075_01: Identity Access Management	\$2.46M	\$1.86M		
(2006-2007) Currently in Execution (B. Kahn)	Expected Completion 1 st Qtr 2009			
(CO) PR-80001_01: (3 sub-projects) MET Center Facility Analysis Deployment Phase 2 PR-80001_01, PR-80001_02 & PR-80001_03 are in Planning	\$70M	\$0K		
(2008) Currently in Planning (B. Kahn)	Expected Completion 4 th Qtr 2011			
(IO) PR-80022: Additional SAN Capacity for Projects	\$1.75M	\$1.67M		
(2008) Currently in Execution (R. Hinsley)	Expected Completion 3 rd Qtr 2008			
(MO/RO) PR-70007_01: MarkeTrak Enhancements	\$1.62M	\$717K		
(2007-2008) Currently in Execution (R. Giuliani)	Expected Completion 1 st Qtr 2009			
(IO) PR-70054_01: Blade Refresh	\$2.50M	\$2.03M		
(2007-2008) Currently in Execution (R. Hinsley)	Expected Completion 4 th Qtr 2008			
(IO) PR-70055_01: SAN Capacity (part one)	\$1.75M	\$795K		
(2007-2008) Currently in Execution (R. Hinsley)	Expected Completion 2 nd Qtr 2008			

9. Committee Brief – PMO David Troxtell

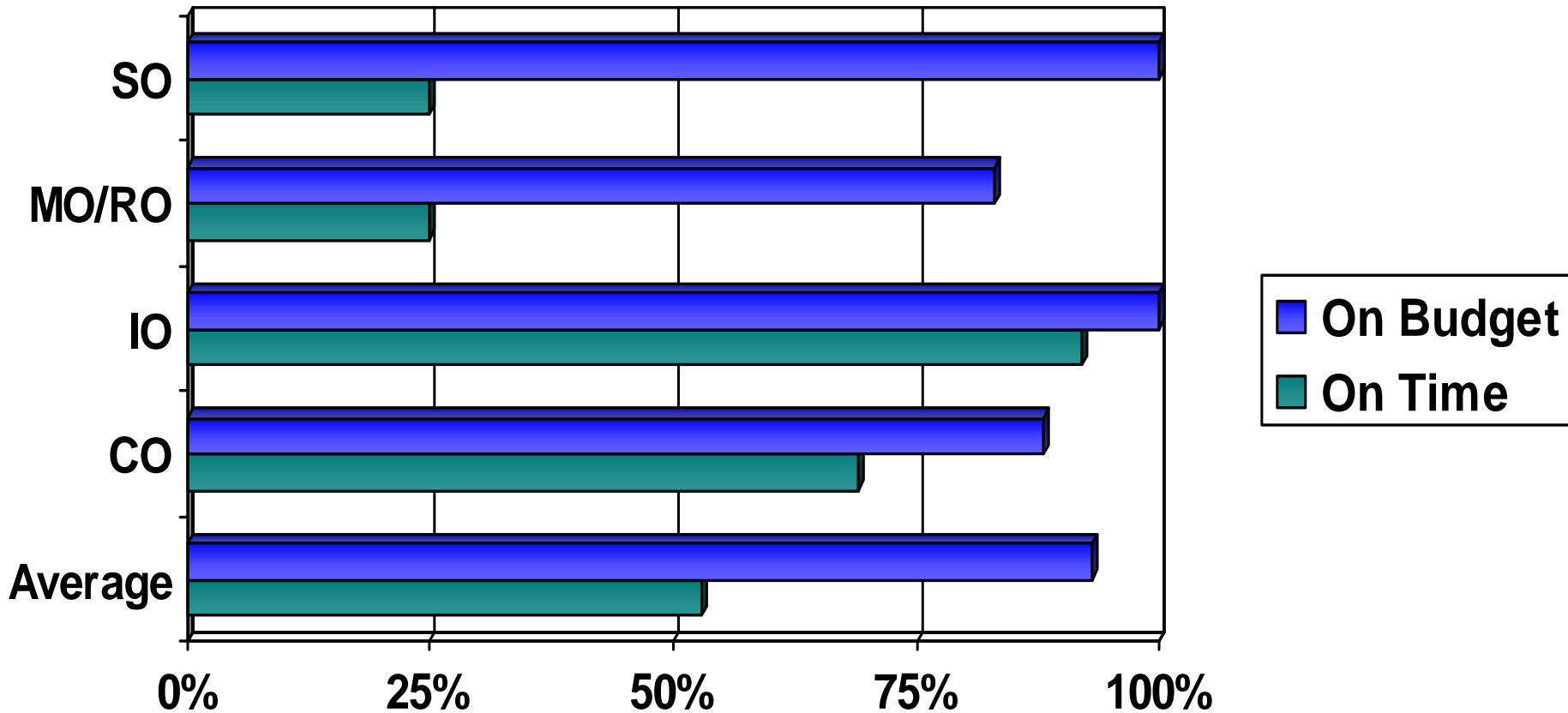
Baseline Budget vs. Actuals for Projects Closed in Lawson for 2008

Completed Projects	Description	Implemented	Baseline Budget	Actuals	\$ Variance Fav/(Unfav)	% Variance Fav/(Unfav)	Explanation
60082_01	Dynamic Rating Data to TSP	2007	\$ 108,700	\$ 50,786	\$ 57,914	53%	60082_01 was an unusual project. It took much longer than planned to complete, but it also required much less work than expected. The project turned out to be more of a configuration item than a software development project.
70006_01	SCR 748	2007	\$ 118,400	\$ 57,612	\$ 60,788	51%	Scope change to split to deliver the remaining work in 70006_02.
70026_01	Virtual Tape Backup	2007	\$ 1,350,000	\$ 768,534	\$ 581,466	43%	The \$581,466 variance for the 70026 project was due to price negotiations of hardware. All pricing was negotiated for lower costs than originally expected.
70005_01	MO SAS 70 Proc Optimization	2008	\$ 286,000	\$ 229,827	\$ 56,173	20%	Tasks over estimated by 10% and 10% contingency.
70012_01	Secure Remote Access	2008	\$ 403,000	\$ 337,169	\$ 65,831	16%	Slight reduction in scope based on problems experienced during rollout with drive mapping, memory utilization on intranet controllers, and issues with VMWare.
70035_01	REC 2007	2008	\$ 185,000	\$ 159,280	\$ 25,720	14%	EROCT internal development was able to do the project in a shorter period of time, the work was of high quality with very few software bugs and the contract PM spent less time due to the shorter development time and less testing.
50123_03	Document Management - Ph III	2007	\$ 150,000	\$ 141,913	\$ 8,087	5%	
50137_02	Maestro Replacement - Ph II	2007	\$ 10,000	\$ 11,207	\$ (1,207)	-12%	Over 1207 accounts for additional expenses not originally budgeted for.
		Count = 8	\$ 2,611,100	\$ 1,756,328	\$ 854,772	33%	

NOTE:

1. Baseline budget does not include change controls that were approved without granting a new baseline budget.
2. List and totals include projects delivered and reported in previous years Project Management reports but closed in Lawson in 2008.
3. Favorable is when a project is delivered under budget. (UnFav)orable is when a project is delivered over budget.

2008 Completed and Active Projects Performance



Note: Includes projects started in previous years.

ERCOT Enterprise Projects Summary Report

ERCOT Overall Projects Report

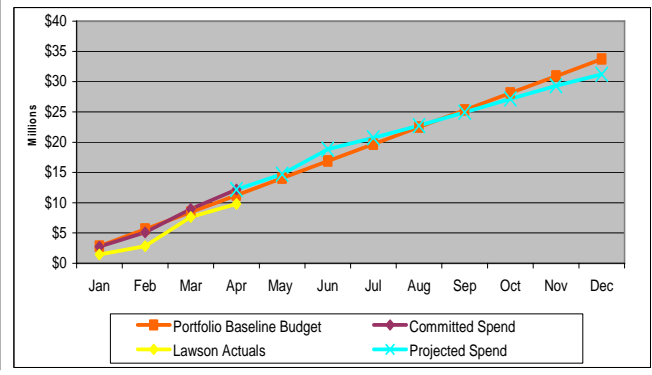
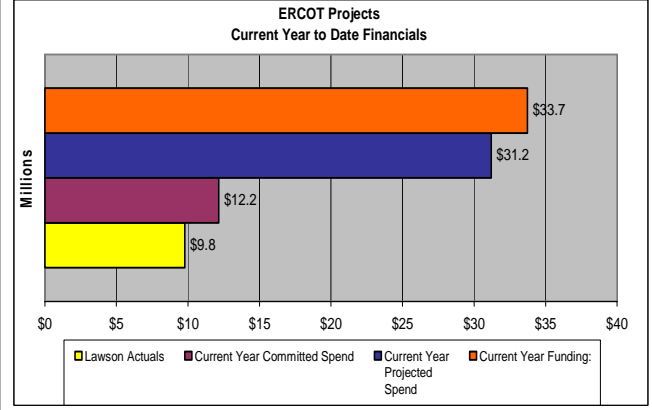
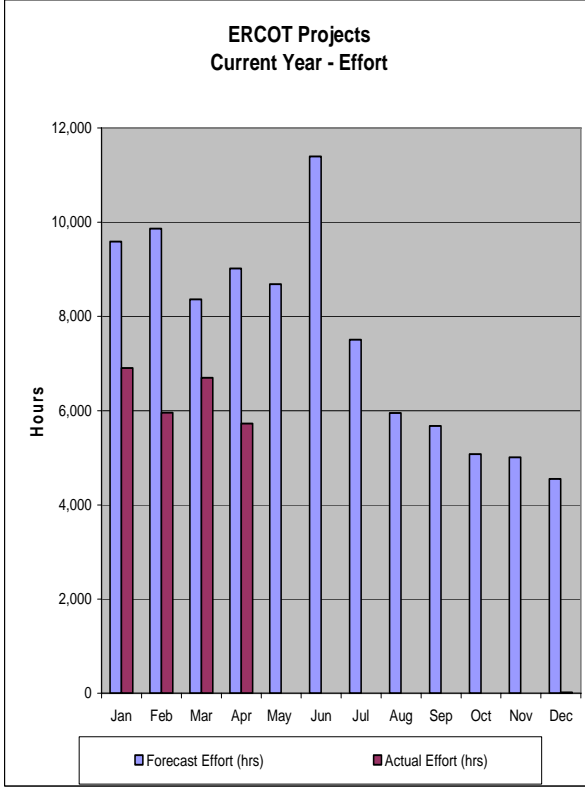
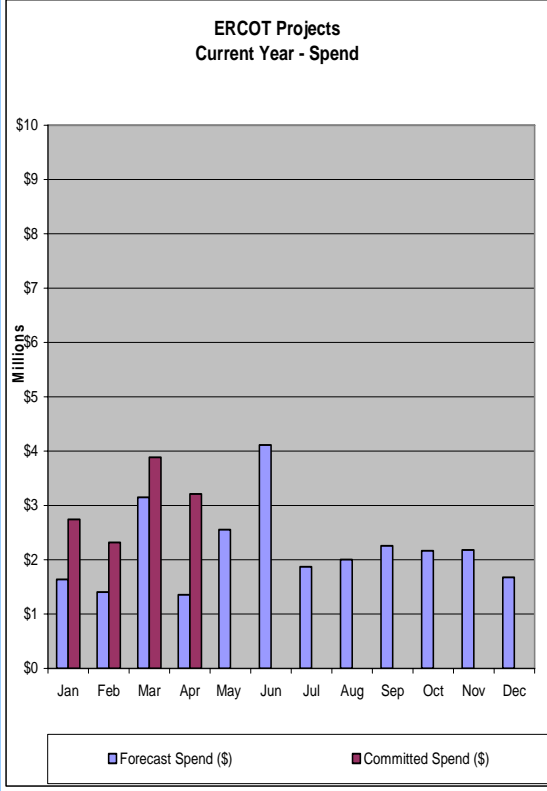
Reporting Period:

5/5/2008

Summary

ERCOT Projects Leadership		Projects in ERCOT's Portfolio					Portfolio Performance		
Executives		On Hold	Initiation	Planning	Execution	Closing	Schedule	Budget	Milestones
Kent Saathoff	Ray Giuliani	1	2	13	28	11	Y	G	Y
Ron Hinsley	Steve Byone	Closed		10	Total Active				
		Cancelled	9	Projects Not Started:		17	Current Year Funding:		\$33,732,880

Portfolio Performance Summary



Notes

Note:
Project/Status Count/Budget Variance:
CO:(4 Deferred); MORO:(13 Deferred); SO-DPO:(1 NODAL in Execution).



Future Agenda Items – June 2008

- **Debt financing for additional Nodal and Zonal costs**
- **2009 Audit planning**
- **Review the company's dealings with any financial institutions that are also market participants**
- **Committee briefs**
- **Future agenda items**

F&A Yearly Schedule

Quarter 1

- √ •Elect officers and confirm financial qualifications
- √ •Review of external auditor quality control procedures and independence
- √ •Review scope of annual financial audit
- √ •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

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

Appendix – CWG Comments

Comments on Market Credit Risk Standard

AEP believes it is premature to provide comments on a risk appetite at this time for a number of reasons. The model is evolving and the results and assumptions need to be further vetted in the Credit Working Group. There should be a trial period including a period of time the model is used with the new nodal market before it is cast in stone and credit risk mitigation measures are formulated from it. We would advise the results be reported to the CWG on a regular basis and that the model be run more frequently than once a month.

AEP would caution that it is going to be very difficult for the CWG to formulate a risk appetite statement given that CWG members have widely different views on the matter based on their participation in the market. It's a risk vs reward philosophy.

Laura C. Seeberg
Sr. Analyst - Credit Risk Management
American Electric Power Service Corporation

At this point in time, SUEZ does not believe it is prudent to place a cap on the amount of credit risk acceptable to the ERCOT members. The Potential Credit Risk Model is still being developed and explored and needs more time to be tried and tested. SUEZ believes ERCOT should take atleast the next twelve months (including six full months of Nodal) to test the model (atleast weekly) and report the results to the Credit Working Group as well as to Finance & Audit Committee.

The Potential Credit Risk Model needs to incorporate guaranties as extensions of credit and not as a type of collateral as recommended by the members. Any model must be tried and tested over time and given the upcoming introduction of new products and players into the marketplace it does not seem prudent to implement any type of cap at this current point in time. The results of the model should be explored and vetted over a period of time in order to properly resolve any issues with the model itself and/or incorporate upcoming market (Nodal) changes. SUEZ believes it is prudent at this point in time to prepare the members of the Credit Working Group for the transition to Nodal and believes the next meetings need to focus on this topic.

Please let me know if you have any questions.

Kind regards,

Jane Wilhite
SUEZ Energy North America, Inc.

Currently we do not know what the risk is in the ERCOT market. We, Direct Energy, do not feel comfortable moving forward with the Market Credit Risk Standard at this time because we do not have enough information to determine what is reasonable. We would like to see some information reported to the CWG (and other committees as necessary) for a period of time (6-9 months) before we attempt to come up with any measure.

Feel free to contact me with questions regarding this issue.

Thanks,

Ruth Hudson
Direct Energy

No comments on Appendix A other than the belief that it is premature to insert any numbers into the blanks at this point until the analysis tool has had a testing period to develop numbers and see if it provides rational numbers. This period will also allow us to watch the movement of the number based on changing inputs to see if the engine itself may need modification.

Sections that are unmarked are not an indication of acceptance of the numbers included. In most cases, the concepts have no historical track record to review, so any number included would be just as good as any other at this point (Volume Parameters for instance). When we discussed this in committee, it seemed that there were additional weights or formulaic assumptions. Is this the complete list of all variables used in the model?

Thanks for the opportunity to comment.

Clayton Greer
J. Aron

(See also attached redline edits)

Tenaska would need to see the PCR results for at least a couple months before we could recommend a market limit that we are comfortable with.

Thanks,

Robert Alsbrooks
Tenaska

NRG believes it is premature to provide comments on a risk appetite at this time for a number of reasons. First, the PFE model is still being developed and explored and needs more time to be tried and tested. Second, the model needs to be tried and tested over time and given the upcoming introduction of new products and players into the marketplace it does not seem practical to implement a cap at this time. The results of the model should be explored and vetted over a period of time in order to properly resolve any issues with the model itself and/or incorporate upcoming market (Nodal) changes. This is the process that all Participants would follow internally as we look to implement a new model.

Therefore, NRG believes it is prudent at this point in time to prepare the members of the Credit Working Group for the transition to Nodal and believes the next meetings need to focus on this topic.

Please let me know if you have any questions.

Regards,

Nithya Venkatesan
NRG

General Concerns regarding the Standard

Reliant does not think it is appropriate to craft a Standard without a better understanding of the Standard's purpose, as well as ERCOT's intentions should the Standard be breached. For example, the Purpose statement indicates that the standard provides a framework for maintaining financial integrity; however, it is unclear how this would occur. Similarly, section 3 is unsuitably vague as to whether any actions or plans would be required in the event of a breach or what those actions and/or plans would be.

Reliant appreciates ERCOT staff providing Appendix B to document the workings of the model; however, given that Appendix B has just been published, Reliant believes it would be premature to craft a market standard that is based on the output of a model that is still under consideration. Reliant encourages all stakeholders to have the appropriate individuals within their companies review Appendix B in detail so as to determine if the model's methodologies reflect best practices in the energy industry.

Once the model's theoretical framework has been reviewed and/or refined by stakeholders, a period of testing is warranted to review model results for current and stress scenarios to determine if the results are plausible prior to determining a standard that is based on model results.

Reliant believes that the model's approach to a nodal marketplace has not been adequately reviewed at this time. The CWG will need a better understanding of the nodal credit implications and how they are handled within the model before it can opine. Reliant believes it would be inappropriate to craft a Standard based on the model when the model will not yet have been tested for plausible results using a nodal framework.

The credit scoring portion of the model is still under consideration, and the CWG has not endorsed this model which is the basis for determining the default occurrences for the market. CWG will need to see additional test cases and review how changes in the ratios and/or weightings may improve the model. Reliant asks that Staff reconsider whether a consensus Standard can be crafted given the variety of companies and risk appetites reflected in the stakeholder group. Reliant would also ask that Staff look to other RTOs and ISOs to determine best practice in this area.

Specific Model Issues (Appendix B) Identified to Date

Reliant suggests that where the rating for an unrated subsidiary with a rated parent is considered that ERCOT specify the subjective factors utilized to determine the “strength of the relationship.”

Reliant would prefer to see the CWG proposed changes to the credit scoring model ratios and weightings outlined here given the CWG spent a significant amount of time during the March 7 meeting discussing and negotiating these changes and a consensus was reached.

Please provide additional detail for the default correlation timings. Currently, the draft indicates that “correlations observed across industries” are utilized; however no data is provided to support the correlations in the model.

A significant factor in the model, volume drawn from the balancing energy market, is a subjective input. Reliant appreciates that there is not a great deal of historical activity to utilize; however, we request that ERCOT look to previous defaults of Small Retailers and provide the BES volumetric data in those instances for comparison purposes.

The model does not use market events (jump events) to influence the probability of default; rather once a default occurs; it is aligned with a jump event based on a correlation. Reliant suggests that the actual probability of default should be influenced by a market driven event rather than just valuing the resulting exposure based on the event.

Reliant questions the use of only the QSE’s “primary hub” for exposure calculation purposes; congestion can cause dramatic disparity in prices which in turn could dramatically overstate or understate exposure.

Reliant believes that price uncertainty is not fully addressed in the model via its utilization of jump events. A more comprehensive approach would be to simulate forward prices using market volatilities rather than relying only upon jump events to capture the price uncertainty in the market.

Please provide the methodology and/or calculations to support the jump size increases as a result of increases in the price cap amount.

The model does not appear to provide a parameter to address escalated volumes that would result from a jump event. A jump event is generally driven by a severe weather event which would impact overall load; however, the model uses historical volumes and only provides for a simulation of how much the volume drawn may change, not how much the QSE’s overall volume would change.

Comments from Luminant
Tim Coffing

Problems with using the Potential Credit Risk Model (the model developed by Oliver Wyman) to determine ERCOT's collateral requirements:

- The model was not intended for predicting counterparty exposure at an entity level, it was designed to provide an indication of overall market risk. Thus, the assumptions associated with collateral worthiness do not enable ERCOT staff to measure the loss associated with a default with a high degree of confidence. The perception of confidence obtained by utilizing statistical measures for which there exists inadequate data provides a false indication of one's ability to ascertain the probability of default of any particular entity in the market and loss of default associated with an event of market failure.
- Those who have participated in development of the model have made great progress; however, a second phase that requires development, testing, training, and planning is required before the model can be used to measure ERCOT's collateral worthiness.
-

Development: Further advancements associated with identifying the unique risk mitigation characteristics of each entity must be determined. For example:

1. The model was built to calibrate each market participant's credit score based upon seven financial ratios and the judgment of ERCOT staff to measure qualitative characteristics associated with an entity's ability to perform. This practice has undermined the accuracy of measurement in order to accommodate the lowest common denominator - an entity that provides a minimal amount of transparency to ERCOT when reporting financial statements.
2. Due to a lack of observations of default in ERCOT and a limited number of market participants that comprise the QSE population, the model can not be adequately calibrated to the market. Thus, the model's ability to forecast market behavior is limited despite the perception of statistical assurances that are associated with the model's output. The inputs into the model have not been adequately configured or tested, and they compromise the legitimacy of default risk indicators. For example, the correlations associated with default events have been hypothesized without relying on a statistically significant number of historical observations,; thus compromising the integrity of information associated with predicting probabilities of defaults for a single and/or multiple entities.

3. As a result of simplification, the model's design does not appropriately classify an entity or judge how that entity would behave in a low/high price fuel/power environment. The model has diminished the scope of entity characteristics that have been intentionally configured to mitigate liquidity risk, to minimize portfolio risk, and to ensure going concern. The complexity of each market participant has been crudely classified into three categories - generator, small retailer, and all other. Thus, the model does not adequately differentiate between how units will be deployed in response to market price signals, which entities have rights to the outputs of generation, how a short term price event will impact the long term value of an entity, and how risk mitigation strategies will be deployed to minimize an entity's market exposure in response to signals that occur prior to the development of a market event.

Training: The depth and breath of credit knowledge accessible to ERCOT staff should be in question. The further utilization of unofficial reports and questionable means to measure credit risk will further burden an ERCOT staff that is already stretched thin. Although ERCOT Staff has had a desire to further qualify credit risk, time and resource constraints have historically limited Credit Staff at ERCOT from auditing the market participants, anticipating market defaults, and thoroughly analyzing Stockholder's financials. Will a staff that has historically been reliant on external financial indicators, like credit rating agencies, be able to maintain, utilize, and react to a financial scoring model that has limitations that are recognized by Oliver Wyman, ERCOT's Staff, and ERCOT's stakeholders?

Testing: ERCOT staff has had less than six months to test the model, and within that time, a limited amount of information has been shared with market participants. The calculation methodologies are not transparent to the market and do not enable Stakeholders to test data inputs, reproduce outputs, nor shadow the model's calculations. Without additional clarifications Stakeholders will not be able to effectively reduce their exposure to the ramifications that may result to ERCOT taking discretionary measures to mitigate credit exposure.

Planning: While thoroughly developing the credit model and testing the model for its ability to determine collateral worthiness, the following questions need to be answered. What will trigger ERCOT to increase collateral requirements? What will trigger ERCOT to decrease collateral requirements after an increase in market risk is no longer observable? What will be the cost associated with an increase in collateral requirements? What are the means for ERCOT to reduce default exposure as identified in market rules? What actions can ERCOT promote/deploy that will reduce market exposure? How will success or failure be measured/reported when ERCOT responds, or fails to respond, to a market event? To what extent do market participant's need to comply with ERCOT's discretion, and what are the consequences of not complying? Does ERCOT

have an adequate amount of tools, staff, and experience to adjust model parameters associated with the correlation of prices across congestion zones, the frequency of price jumps, the magnitude of price jumps, the volatility of price, the seasonality of price, the correlation of electricity to natural gas, nodal developments, etc.? How often will model inputs be reviewed and refreshed? Can competition and participation in ERCOT be negatively impacted by defining a credit risk statement too broadly/narrowly? Can ERCOT's actions imposed on the market in response to the perception of an increase in credit risk stimulate the probability of default and increase the magnitude of default? Does the scope of the model's observations ignore the potential for a market event that has not been defined, and thus will a reliance on the model create a false confidence and oversight? Is the defined action plan appropriate?

At this time Stakeholders and Staff do not have the appropriate information to enable a Market Credit Risk Objective to be defined in terms of financial figures and confidence intervals. Before such a statement could be defined the deficiencies in current credit mitigation policy need to be defined, the cost/reward of altering ERCOT's Credit Policy needs to be communicated and voted upon.

These comments are provided on behalf of TEAM and its members. The TEAM REP members are: Accent Energy, Cirro Energy, Commerce Energy, Inc., Green Mountain Energy Company, Hudson Energy Services, Just Energy Texas, StarTex Power, Stream Energy, Tara Energy, Inc. These comments address the draft document entitled “ERCOT Corporate Standard”.

The document entitled “ERCOT Corporate Standard” appears to go beyond the directive given by the F&A Committee to the Credit Working Group to develop a policy statement as a risk appetite statement. The draft document attempts to provide a process for addressing perceived credit risk that is premature at this point. Consensus has not yet been reached among the Credit Working Group (much less the market participants) regarding the various inputs for the credit risk model and its results.

This initiative must be thoroughly examined, proven to be empirically correct, and be adequately understood and tested by all stakeholders who are affected by this proposal and process. Because such a model has not been used in an ISO model before, before adopting such a standard and the associated process, the market should gain experience with the model against the market performance for a representative period of time.

In addition, the risk associated with the market will change with nodal implementation. It would not be prudent to divert resources for development of a credit risk evaluation process at this juncture in the nodal market implementation.

The process for credit analysis and management outlined in the draft document presents numerous larger operational and market issues that would require additional time to provide meaningful and effective input. TEAM and its members will continue to participate in the credit working group and other market participant groups at ERCOT to review the various issues presented here.

Catherine J. Webking
The Webking Law Firm, PC

Calpine applauds the efforts of ERCOT Staff to materially enhance its credit risk management framework and infrastructure as a result of the work performed by Oliver Wyman. Calpine believes the results of the OW engagement represent a paradigm shift in the way ERCOT stakeholders and staff will be able to assess credit risk and capital adequacy of ERCOT, as well as providing for the development of a robust framework and associated reporting and tools to manage these key risks.

The results of OW are also timely and coincide well with the implementation of the new credit risk application by ERCOT, as well the results, we believe, will provide ERCOT Staff with significant assistance in implementing their enterprise risk management (ERM) initiative.

Calpine does make the following observations and recommendations at this time.

The results of the OW engagement are expansive, covering many different aspects of credit risk management and capital adequacy. The breadth of coverage, including recommendations and risk modeling, in many areas, represent a significant shift from the current state of risk management. Specifically, many of the concepts introduced especially in the areas of capital adequacy and credit risk modeling, such as Potential Future Exposure, the use of confidence intervals, etc., are new to both Staff and some stakeholders, including, perhaps, the Finance and Audit Committee of the BOD. Given this potential paradigm shift in the way credit risk is managed, and capital adequacy determined, it is prudent for the stakeholders as well as Staff to have a good understanding of how the results of the OW can be used as tools to the furtherment of managing risk within a yet to be established ERCOT capital adequacy framework.

1. Calpine would strongly suggest that prior to defining and/or establishing any corporate standard with respect to Credit Risk,
 - a. That Staff continue to work with the stakeholders through the CWG and TAC, to continue the education process and leverage of the many stakeholders that have implemented advanced credit risk management techniques that ERCOT hopes to deploy. This approach will allow Staff, Stakeholders and the BOD to have sufficient time to review and gain a stronger understanding of the concepts, modeling, and scenario analysis recommended. This is especially so with respect to the proposed models for the PFE, which could be perceived to be going into a “black box” which has not been validated.

- b. ERCOT's BOD retains an external party with expertise in advising BOD's in the area of Risk Management and Risk Management Policy. This external resource should be engaged on an ongoing basis to provide the BOD with continual training and advice on establishment of Corporate Risk Policy, best practices, surrounding the capital adequacy of ERCOT.
- c. The external resource should also work with Staff, and assist both Staff and the BOD in assessing the infrastructure needs, resource requirements, the control framework, as well as the reporting requirements for both Staff as well as the BOD. Again, the use of this resource should be ongoing, until at a minimum, the control environment is functioning effectively for the BOD to protect ERCOT, and subsequent to that date, periodic assessments of the effectiveness of the control environment should be undertaken.
- d. Upon the establishment of a framework for implementing a credit risk best practices environment, leverage off this work and extend the framework into a full capital adequacy framework, including capturing market and operative risk (as well as credit risk). This approach will allow Staff to ensure they have the requisite resources both physical and systems to provide timely and relevant reporting to stakeholders, including the BOD on the risks facing ERCOT, as well as recommendations on how best to manage these risks, within a defined and approved framework.

Additionally, this approach will allow Staff working collaboratively with stakeholders, sufficient time to test models and proposed scenario analysis (back casting, calibration, etc) to ensure that the results are validated, prior to deployment.

Morgan Davies
Calpine

Appendix B

Assumptions Potential Credit Risk Model

Default Parameters

Probability of Default (PD) – The probability of default will be determined for each Counter-Party (CP) as follows:

If the CP is	Then, the CP will receive a mid-point PD that maps from:
Non-rated with financials	For both Base and Current Case
	A rating determined by the Credit Scoring Model using the methodology outlined on page 2 of this appendix
Non-rated without financials	A rating of CCC+
Publicly rated	<u>A-The lowest</u> rating assigned by Fitch, S&P or Moody's

Special case for un-rated subsidiary with rated parent	Base Case
	A rating that considers both <ul style="list-style-type: none"> ○ The stand alone rating of the CP <ul style="list-style-type: none"> ○ CCC+ if no financials are provided or ○ Rating determined by the Credit Scoring Model ○ The parent's public rating
	The rating assigned will be between the stand alone rating of the CP and that of the parent based on the strength of the relationship between the two entities
	Current Case
	Where Cash or a Letter of Credit is provided, a rating will be assigned as in the Base Case
	Where a Guarantee is provided, the CP's rating will be <ul style="list-style-type: none"> ○ Its Guarantor's rating to the extent that its exposure is covered by the Guarantee ○ Assigned as in the Base Case for exposure that is not covered by the Guarantee
	[ERCOT is working on how to determine the split of exposure]

Credit Scoring Model assumptions – the credit scoring model will use the following quantitative and qualitative factors at the relative weights shown in assigning a rating to an unrated CP.

Quantitative Factors – 70% weight		Qualitative Factors - 30% weight	
Proposed Factor	Weight	Proposed Factor	Weight
Working Capital/Sales	30%	Ability to access funding in difficult market environment	25%
Current Ratio	10%	Margin call and late payment history	20%
Equity/Assets	20%	Experience of company leadership	15%
EBITDA/Interest Expense	10%	Recent growth	15%
EBITDA/Sales	10%	Risk management policies and practices	10%
Net Income/Assets	10%	Quality and timeliness of reporting of financial information	10%
Total Assets	10%	Length of time as QSE	5%

Qualitative factors may have 1) a positive effect, 2) a negative effect or 3) no effect on the overall score. Where the qualitative factors have no impact, the score will be based 100% on the quantitative factors.

NOTE: Changes to both quantitative and qualitative factors proposed by CWG are pending based on receipt of year end financial statements, so that the impact on the changes proposed to quantitative factors can be evaluated.

Default Correlation Groups— CPs will be grouped into business groups based on the following definitions.

Default Correlation Type	Business	Definition
1	Generation	>70% of combined load and generation volume is generation ¹
2	Small load	<10,000 MWh/day of load (and <30% of combined load and generation volume is generation) ¹
3	Large load	>10,000 MWh/day of load (and <30% of combined load and generation volume is generation) ¹
4	Trading	Minimal load or generation
5	Public power	Munis and coops
6	Mixed	Relatively balanced mix of load and generation

¹ Based on average activity for a recent month.

Default Timing Correlation – This factor represents the likelihood that CPs will default within the same timeframe, driven by the same underlying factors. These correlations are assigned based on the default correlation groups defined above.

	Generation	Small load	Large load	Trading	Public power	Mixed
Default Type	1	2	3	4	5	6
1 Generation	205%					
2 Small load	0%	130%				
3 Large load	0%	205%	25%			
4 Trading	0%	0%	0%	105%		
5 Public power	101%	51%	101%	0%	202%	
6 Mixed	510%	25%	25%	15%	101%	205%

NOTE: A default timing correlation factor was included in the model given that all activity is within one industry and one geographic location (e.g. energy companies operating within the Texas market through ERCOT). Including this factor allows us to model the risk of having defaults occur within the same timeframe. This parameter only impacts the timing of defaults (e.g. whether defaults already selected for a run will occur together), not who will default. In the Base and Current Case, the correlations are relatively low and were based on correlations observed across industries. These numbers are too high. I don't believe we have data supporting the collapse of multiple entities simultaneously. The default events we have seen appear to be in instances where an entity is undercapitalized and engaging in risky business practices. I don't know that this is something we can say multiple parties are engaging in simultaneously.

Defaults - Market Driven or Non-Market Driven – For a defaulting CP in a given simulation, this factor determines the probability of a default being closely associated with a market event (e.g., price jumps).

- If the QSE’s default is identified as being related to a market event, the day of default will occur on a day when prices are above a specified percentile.
- If the QSE’s default is identified as having no relation to a market event, the day of default will be randomly chosen over the time horizon of the analysis.

Type	Description	Probability of defaulting near a “high price day”	“High price day” is defined as those in the upper
1	SR / LR	50%	90%
2	Gen, Trader, PP, Mixed	20%	90%

NOTE: This factor allows consideration of whether a default is triggered by a market event or not. Another way to look at it is, once a CP is selected to default based on its PD, this factor allows us to consider the likelihood that a trigger event is high prices in the ERCOT market.

Considerations

- Market structure factors such as 1) higher price caps – moving toward \$3,000, 2) the scarcity pricing management approach adopted and 3) the nature of an energy-only market generally indicates a higher likelihood of defaults occurring near a price event.
- Historically, most Small Retailer defaults have occurred during periods where prices were over \$100 (generally considered a price spike).
- To date, there has not been a default of a Large Retailer.

Based on the above considerations, retailers were assigned a 50/50 % chance of a default being triggered by a market driven event.

Given their generation capacity, generators, public power and mixed groups were assigned a lower probability (20%) chance of a default being triggered by a market driven event.

Price Parameters

The following price parameters will be used to estimate prices for the time horizon in each simulation run.

- Prices will be determined for each hub and/or zone and will be an average daily price.
- Prices in the CP's primary hub (hub with the most volume) will be used in the exposure calculation.
- Price estimates will reflect the following correlation of normal daily price movements among locations.

Correlation of normal daily price movements

	North	South	West	Houston
North	100%	87%	<u>92??%</u>	91%
South	87%	100%	<u>86??%</u>	90%
West	<u>92??%</u>	<u>86??%</u>	100%	<u>86??%</u>
Houston	91%	90%	<u>86??%</u>	100%

Wind farm activity is distorting this correlation.

Prices will be estimated as the sum of 1) a base price component and 2) a price jump component.

- 1) The base price component will be determined from forward gas prices at a current point in time, converted to energy prices based on local spark spreads
- 2) The price jump component will be based on the following jump parameters:

Jump parameters

Category	Price Jump Assumptions
Frequency of jump days	7 %
Percent likelihood of a 1-, 3- or 6-day jump series	75%, 20%, 5% respectively
Frequency of jumps common to multiple zones	80%
Average jump size (above base price)	80 \$/MWh
99 th % highest expected jump	375 \$/MWh

NOTE: The price parameters established above are based on historical ERCOT price data. Prices above an average daily price of \$100 were considered jumps. The \$100 cutoff was used across all zones.

Adjustments were made to raw data as follows:

- 1) Frequency of jump days was increased slightly from a historical rate of 4.6% - 5.6% to 7% to reflect the scarcity pricing approach recently adopted.
- 2) Percentage likelihood of 1,3 or 6-day jumps was shifted from 79%, 17%, 4%, respectively to 75%, 20%, and 5% - again, to reflect the scarcity pricing approach recently adopted.
- 3) The average jump size was increased from the historical level of \$64-69/ MWh to \$80/ MWh given that the price cap during much of the historical period was \$1,000 and is now \$2,250.
- 4) The 99th% highest expected jump was increased from the historical range of \$123 – 147/ MWh to \$375 / MWh given that the price cap during much of the historical period was \$1,000 and is now \$2,250.

Exposure Parameters

Exposure at default is driven by 1) when a default is triggered, 2) the exposure timeframe (e.g. number of days of exposure), 3) the volume of energy drawn from ERCOT at default, and 4) the price of the energy obtained through ERCOT. The pricing parameters are defined in the preceding section and will not be addressed here.

Trigger event – As discussed in the Default Parameters, the trigger event can be market-driven or not market-driven.

- 1) When a trigger event is market-driven, the default is placed near a price jump event (1-, 3-, 6-day jump events exist)
 - a. The jump event chosen will be the longest in the price series (e.g., the model will first look for a 6-day series, but if not present the model will look for a 3-day series, etc.)
- 2) When a trigger event is not market-driven, the default is placed randomly within the time horizon of the analysis

Exposure timeframe - The number of days of exposure include 1) unpaid days prior to a trigger event and 2) days from (and including) the trigger event until exposure ceases.

- 1) **Unpaid days prior to a trigger** – Exposure will be included (at historical volumes and estimated prices) for the number of days indicated based on the day of the week the trigger event occurs

M	T	W	Th	F	Sa	Su
24	25	26	20	21	22	23

- 2) **Trigger day through resolution** – Exposure timeframe will be based on the default mode or method of resolving default and the day of the week the trigger event occurs. The two modes are a) mass transition or b) bankruptcy / other.

Type	Description	Default mode	Number of days of exposure
a)	SR	Mass Transition	9 – 15 days – see schedule below + 3 days for MT
b)	All others	Bankruptcy / other	6 - 12 days – see schedule below

	Type	M	T	W	Th	F	Sa	Su
Base	1	8	8	8	8	8	7	6
Holiday First Thursday	2	8	8	8	8	8	7	6
Holiday First Friday	3	8	8	8	9	8	7	6
Holiday First Monday	4	8	8	8	9	11	10	9
Holiday First Tuesday	5	9	8	8	9	11	10	9
Holiday First Wednesday	6	9	9	8	9	11	10	9
Holiday Second Thursday	7	9	9	9	9	11	10	9
Holiday Second Friday	8	9	9	9	8	11	10	9
Holiday Second Monday	9	9	9	9	8	8	7	6
Holiday Second Tuesday	10	8	9	9	8	8	7	6
Holiday Second Wednesday	11	8	8	9	8	8	7	6
Christmas On Monday	12	9	9	9	9	12	11	10
Christmas On Tuesday	13	10	9	9	9	11	10	9
Christmas on Wednesday	14	9	10	9	9	11	10	9
Christmas on Thursday	15	9	9	9	9	11	10	9
Christmas on Friday	16	9	9	9	12	11	10	9

NOTE: The number of exposure days is determined based on a trigger date (a date on which a CP has a problem, regardless of whether ERCOT knows they have a problem). Exposure includes 1) unpaid days prior to a trigger event and 2) days from (and including) the trigger event until exposure ceases. For bankruptcy / other type events, exposure is estimated based on the Protocol timeline for issuing collateral calls and curing breaches and is assumed to cease at the end of the breach period (e.g. assume a bankruptcy is filed or other action taken). For mass transition events, exposure is assumed to cease 3 days beyond the end of the breach period.

For example, a trigger event occurs on Monday and is discovered by ERCOT on Tuesday and a collateral call is made, which is due Thursday. A breach notice is sent on Thursday giving a CP until end of day Monday to cure. Exposure exists from when the problem occurs until the end of the breach cure period; eight days in this example.

Volume Parameters – The volume of energy drawn from ERCOT both prior to and after a trigger event is a key risk in considering exposure in the market.

- 1) Historical volumes will be used to calculate all exposure (and collateral) prior to a trigger event. Historical volumes for a) maximum possible load and generation and b) level of activity in the ERCOT market are pulled from ERCOT systems. Historical volumes will be the average for a recent 30-day period for which final settlement statements have been issued.
- 2) The potential for volume escalation during a default and the amount of escalation are defined below. Escalation is the percent movement between historical levels and the defined maximum volume.

During a market-driven event

	Red to 0	Main Hist	20%	40%	70%	100%
Generators	10%	50%	30%	9%	0%	1%
Small retailer	5%	20%	40%	10%	0%	25%
All others	0%	50%	40%	9%	0%	1%

After a market-driven event

	Maintain at escalation	Return to historical levels	Maximum
Gen/LR/PP/Mixed	30%	70%	
Small retailer	30%		70%
Traders	0%	100%	

For a non-market driven event

	Red to 0	Main Hist	20%	40%	70%	100%
Generators	10%	50%	30%	9%	0%	1%
Small retailer	0%	20%	0%	0%	0%	80%
All others	10%	50%	35%	5%	0%	0%

NOTE: Given the significance of this risk factor as a driver of exposure in the market, an estimation of potential future exposure would be incomplete without consideration of the potential for volume escalation.

The above estimation of the possible risk, weighted for its probability of occurrence, is based on the following considerations:

- ERCOT, as ISO, is effectively the supplier of last resort. Any energy not scheduled or any schedule not met will be fulfilled through the ERCOT market.
- ERCOT staff cannot control the volume of energy that is pulled from the ERCOT market and will generally not know about it until after the fact.
- As an entity reaches the point of default, the risk increases that more volume will be pulled from the ERCOT market.
- There is insufficient historical data on defaults to statistically validate a trend in volume escalation. However, historical activity alone does not provide sufficient input as it would not consider current risk factors and would likely not provide a complete picture of the range of possible risk.
- Generally, while larger entities are considered at risk for volume escalation, the assumption is that escalation will be for only a portion of their maximum volume rather than for their entire volume, given their broader range of mitigation tools and possible suppliers
- Generally, smaller entities are considered at greater risk of higher levels of escalation, given more limited supplier base and other risk management sources.

Potential exposure for traders may be understated as they have no inherent “maximum volume” and no proxy was included. Risk for traders is currently assumed to be only price volatility.

Collateral parameters

Collateral will be estimated at the trigger date for ERCOT market activity using 1) historical levels of volumes in the ERCOT market and 2) price estimates based on the pricing parameters previously defined. Other billing determinants are not considered.

The collateral estimate is based on the highest two week average over a 9 week period, extrapolated over 40 days, a current estimation of the NLRI factor and outstanding invoices.

Num of extrapolated days (forADT)	40
Num of EAL values for “look back”	9

Number of days for NLRI calculation	21
Number of future NLRI days	7
NLRI price multiplier	150%