



ERCOT
Finance & Audit Committee Meeting
7620 Metro Center Drive, Room 168, Austin, Texas
January 16 , 2006; 7:45 a.m. – 10:00 a.m.**

Agenda Item #	Description/Purpose/Action Required	Presenter	Time
	Call to order	C Karnei	7:45 a.m.
1.	Adjourn to executive session		7:45 a.m.
	• Significant audit findings	B Wullenjohn	7:45 a.m.
	• EthicsPoint update	E Arterberry	7:50 a.m.
	• Update on Internal Audit staffing	B Wullenjohn	7:55 a.m.
	• Update on Internal Audit goals	B Wullenjohn	8:00 a.m.
	• Discussion with executive management	Jones/Byone	8:05 a.m.
	• Assessment of the adequacy & effectiveness of IA staff	B Wullenjohn; then committee discussion	8:15 a.m.
	Reconvene to general session		8:30 a.m.
2.	Approval of Minutes* (Vote) (12/12/06)	C Karnei	8:30 a.m.
3.	Confirm financial qualifications of committee members (see premail)	committee discussion	8:35 a.m.
4.	Elect committee officers (VOTE)	S Byone	8:40 a.m.
5.	Review Finance and Audit Committee charter	S Byone	8:45 a.m.
6.	Review PwC disclosure of auditor independence	S Barry	9:00 a.m.
7.	PwC Report on 2006 SAS 70 Audit	S Barry	9:05 a.m.
8.	Assessment of compliance, the internal control environment and systems of internal controls	C Moseley/ M Petterson	9:10 a.m.
9.	Review preliminary 2006 financial results (no premail)	M Petterson	9:20 a.m.
10.	Quarterly Investment Results (no premail)	C Yager	9:25 a.m.
11.	Recommendation for Board approval of updated nodal fee filing (VOTE)	S Byone	9:30 a.m.
12.	Determine new date for Credit Workshop	C Yager	9:45 a.m.
13.	Committee Briefs (pre-mail only)	n/a	9:50 a.m.
14.	Future Agenda Items	S Byone	9:50 a.m.
	Adjourn		9:55 a.m.

*** Background material enclosed or will be distributed prior to meeting. All times shown in the Agenda are approximate
The next FA Committee Meeting will be held February 20, at ERCOT, 7620 Metro Center Drive, Austin, Texas.*

Draft MINUTES OF THE ERCOT FINANCE & AUDIT COMMITTEE MEETING

Austin Airport Hilton Hotel

9:00 A.M.

December 12, 2006

Pursuant to notice duly given, the meeting of the Electric Reliability Council of Texas, Inc. Finance & Audit Committee convened at 9:10 A.M. on **December 12, 2006**. The Meeting was called to order by **Clifton Karnei** who ascertained that a quorum was present.

Meeting Attendance

Committee members:

Clifton Karnei, Chair	Brazos Electric Cooperative	Cooperative	Present
Miguel Espinosa, Vice Chair	Independent Board Member	Independent Board Member	Not Present
Robert Manning	H-E-B Grocery Co.	Consumer	Present
R. Scott Gahn	Just Energy	Ind. Retail Electric Provider	Present
Tom Standish	Centerpoint Energy	Investor-Owned Utility	Not Present
William Taylor	Calpine Corporation	Ind. Generator	Present

ERCOT staff and guests present:

Arterberry, Emma	ERCOT
Brenton, Jim	ERCOT
Byone, Steve	ERCOT (CFO)
Campbell, Cassandra	ERCOT
Delenela, Ann	ERCOT
Doolin, Estrellita	ERCOT
Fehrenbach, Nick	City of Dallas
Jones, Sam	ERCOT (CEO)
Kolodziej, Eddie	Customized Energy Solutions
Meek, Don	ERCOT
Moseley, Cheryl	ERCOT
Myers, Michelle	ERCOT
Petterson, Mike	ERCOT
Troxell, David	ERCOT
Vance, Cathy	ERCOT
Vincent, Susan	ERCOT
Wilkerson, Dan	BTU
Wullenjohn, William	ERCOT
Yager, Cheryl	ERCOT

Executive Session

At 9:11 AM, the Committee meeting was adjourned and the Committee went into Executive Session until approximately 9:25 AM. The Committee returned to Open Session at 9:30 AM.

Approval of Previous Minutes

William Taylor moved to approve the minutes for the previous meetings held on November 14, 2006; Scott Gahn seconded the motion. The motion passed unanimously.

PwC Non-Audit Services

Michael Petterson informed the Committee of certain minor non-audit services ERCOT would continue to obtain from its independent financial auditor, PriceWaterhouseCoopers—namely, a renewed subscription to PwC's comprehensive, web-based accounting database. Petterson submitted a memo to the Committee dated December 5, 2006, which is attached hereto as **Exhibit A**, to provide the Committee written notice of the transaction. Clifton Karnei noted that the Charter notice requirement to disclose such non-audit services was an outgrowth of “Enron-type irregularities” where some audit firms were receiving greater revenues from their non-audit services than their audit services. Mr. Petterson confirmed that the total amount to be paid for the PwC database for 2007 was approximately \$2,000.

Materiality Principles

Michael Petterson reminded the Committee of prior discussions regarding materiality of transactions, explaining that staff was looking for a definitive statement regarding materiality in the context of the annual external financial statement audit, to help staff to determine the appropriate level of resources to devote to internal controls. Mr. Petterson reviewed the key elements taken from a memo dated December 5, 2006 regarding ERCOT Financial Materiality, which is attached hereto as **Exhibit B**. Mr. Petterson confirmed that the \$350,000 amount which would be considered “material”, as noted on page 2 of the memo, equated to five percent of ERCOT operating expenses. Mr. Petterson also pointed out that, as previously discussed by the Committee, in circumstances involving fraud, intentional conduct, or if accounting treatment caused a net deficit to become a net benefit, even smaller amounts would be considered to be material. Steve Byone confirmed to the Committee that Sean Barry of PwC was in support of the materiality approach outlined in the memo. Mike Petterson reiterated Bill Wullenjohn's comments made at an earlier Finance and Audit Committee meeting that the materiality thresholds outlined in the memo would not be binding to Internal Audit and that Mr. Wullenjohn's staff would continue to investigate even smaller transactions if circumstances warranted. Mr. Byone informed the Committee that staff was not looking for a vote, but was seeking Committee endorsement of this framework. The Committee reviewed, discussed and concurred with the concepts outlined in the memo, but agreed that the document would be a “living” document and could be revised in the future, as required.

Credit Workshop Proposed Agenda

Cheryl Yager presented the proposed agenda for a Credit Workshop, which is attached hereto as **Exhibit C**, for the Committee's approval. The Committee discussed the purposes of the workshop, ERCOT's role in credit decisions and responsibilities for credit failures, and the details of the proposed agenda. The Committee expressed its desire that all Board members be invited and encouraged to attend the workshop. Mr. Karnei requested that the workshop include a discussion by Legal of the legal ramifications of ERCOT's role in credit decisions. Scott Gahn requested that the workshop provide for a broad discussion of the responsibilities and accountabilities for credit risk and failures, and that staff present an example of the ramifications of a large REP failure. Mr. Gahn also requested that any acceptance by the market of credit risk should be documented so that ERCOT staff would not be held accountable for this choice. Ms. Yager noted that even if best practices were implemented, there was no

way to fully eliminate all credit risk. William Taylor requested that the workshop include a discussion regarding the governance of the Credit Work Group, including information regarding how other ISOs and similar groups handled credit risk. Steve Byone suggested inviting PUC staff to discuss their role as it relates to overall financial stability of the ERCOT market. The Committee requested the following: (1) all Committee and other Board members be invited and encourage to attend the workshop; (2) include the requested presentation by a representative from the ERCOT Legal Department; (3) move the item "Review current level of credit exposure" to the top of the agenda; (4) send an email to confirm the proposed time of 11AM to 4PM on the day before the January 2007 Board meeting. Clifton Karnei commended the preparers of the draft agenda for organizing a nebulous topic in a cohesive manner.

Accounting Highlights

Michael Petterson presented three memos dated December 5, 2006 titled Accounting for the Texas Nodal Market Implementation Program (TNMIP), Accounting from the Independent Market Monitor (IMM), and Accounting for the Texas Regional Entity (TRE), which memos are attached hereto as **Exhibits D, E & F**, respectively. William Taylor encouraged staff to immediately inform the Committee if it became clear that current resources were inadequate to complete the intricate accounting and tasks set forth in the memos.

- **TNMIP.** Steve Byone explained that one purpose of the memo regarding TNMIP accounting was to inform the Committee of how certain estimates were determined and how certain cost allocations would be administered.
- **IMM.** Petterson reminded the Committee that all costs related to the IMM would be covered by the system administration fee and that no separate fee would be collected. Steve Byone added that while IMM costs would be embedded in normal ERCOT accounting records, certain reports were being developed in anticipation of questions from the PUC. Dan Wilkerson requested that the relationship between the IMM financial officer and the ERCOT CFO be clarified in the proposed Bylaws draft that was being circulated and discussed at TAC.
- **TRE.** Sam Jones confirmed that FERC would require an audit of the TRE financial statements by an independent auditing firm. Mr. Byone explained that this audit would be separate from the financial statement audit of the ERCOT financial statements, but could be performed by the same independent auditing firm. Bill Wullenjohn informed the Committee that Internal Audit had scheduled an audit of the TRE financials scheduled for the second quarter of 2007.

SAS 70 – Action Plan

Jim Brenton presented an update on the SAS 70 Remediation Action Plan for the 2006 audit exceptions. Mr. Brenton noted that PwC had done a good job of digging deep during the audit, and that he concurred with PwC that ERCOT needed better documentation and more formalized review and approvals. Mr. Brenton noted that certain "fast fix" items had been presented to and accepted by PwC for inclusion in the November 30, 2006 report; all medium term items would be completed by December 31, 2006; and long-term items would be completed by February or March 2007. Mr. Brenton informed the Committee that an outside SAS 70 subject matter expert had been engaged to assist staff with implementation and review of certain items in the Action Plan and that the external resource would also help ensure that staff was appropriately following all processes. Mr. Brenton noted that the biggest challenge going forward was implementation of the new database hardening guidelines, because it was

critical to apply hardening guidelines without disrupting day-to-day operations. Mr. Brenton confirmed that the remediation must be carefully planned and implemented to avoid adverse impact on the availability of production systems. Mr. Brenton also confirmed that none of the issues noted in the SAS 70 report had impacted the integrity of the ERCOT systems or data. Mr. Karnei asked and Bill Wullenjohn confirmed that Internal Audit would review remediation of all areas prior to the follow-up audit by PwC.

Finance & Audit Committee Self-Assessment Results

The Committee discussed results of the 2006 self-assessment and noted the irony of the fact that comments indicated that some members suggested that the Committee should meet less often and others suggested that the Committee was pressed for time to adequately discuss all issues. The Committee suggested that the members ask the Board to consider whether the Committee should be separated into a Finance & Budget Committee and an Audit Committee, and the Committee should consider potentially scheduling certain standing agenda items only every other month. The Committee also discussed the potentially negative optics of having only one of five Unaffiliated Directors on the Committee, and Mr. Karnei asked whether they should select an Unaffiliated Director as Chair for 2007. The Committee determined that it should discuss the issues regarding potential separation of the Committee and increased Unaffiliated Directors on the Committee with the full Board during the 2007 retreat.

Preliminary 2007 Meeting Planner

Steve Byone presented the preliminary 2007 meeting planner which is based on the tentative Board annual calendar and included one additional meeting date (September 4, 2007) to review the proposed 2008 operating budget.

Committee Briefs

- Enterprise Risk Management. Steve Byone noted that there had been only two changes to the Risk Management Event Profile Matrix (“Stop Light Report”)—namely, reduced risk level for Review Practices and Disclosure.
- PMO. Steve Byone explained that total year capital project efforts were expected to be slightly ahead of budget and that more information would be presented during the meeting of the full Board.

Adjournment

At 10:42 A.M., the meeting was adjourned. The next Committee meeting will be held in January 2007.

Susan Vincent, Secretary

Exhibit A

Interoffice Memorandum

From: M. Petterson
To: Finance & Audit Committee
Date: December 5, 2006
Re: Approval of engagement of external auditors for other services

Objective

1. As required by the Finance and Audit Committee charter, alert members of the Finance and Audit Committee in writing that ERCOT has renewed for 2007 its subscription to Comperio, a comprehensive, web-based accounting database provided by PricewaterhouseCoopers, ERCOT's independent audit firm, costing approximately \$2,000 per year.

Background

1. In early 2006, the Finance and Audit Committee amended its charter to include language consistent with the requirements established in Section 202 of Sarbanes-Oxley.
2. That Section of the law calls for preapproval from the Finance and Audit Committee for engagement of external auditors for "other services".
3. It was agreed at the time of the charter amendment that generally ERCOT staff should make the request for "preapproval" using the standard decision template (with other essential supporting documentation) used for Board and Board Committee meetings.
4. It was also agreed at the time of the charter amendment that engagements for "other services" totaling less than \$5,000 should be communicated in writing to the members of the Finance and Audit Committee at the first meeting following the engagement for the "other services" at issue. This threshold amount is well below the de minimus exceptions provided for in Section 202.
5. Attached Exhibit 1 details the requirements of Section 202.

**Exhibit 1 - The Sarbanes-Oxley Act of 2002, SEC. 202.
PREAPPROVAL REQUIREMENTS.**

(1) IN GENERAL. -

(A) AUDIT COMMITTEE ACTION. - All auditing services (which may entail providing comfort letters in connection with securities underwritings or statutory audits required for insurance companies for purposes of State law) and non-audit services, other than as provided in subparagraph (B), provided to an issuer by the auditor of the issuer shall be preapproved by the audit committee of the issuer.

(B) DE MINIMUS EXCEPTION. - The preapproval requirement under subparagraph (A) is waived with respect to the provision of non-audit services for an issuer, if -

(i) the aggregate amount of all such non-audit services provided to the issuer constitutes not more than 5 percent of the total amount of revenues paid by the issuer to its auditor during the fiscal year in which the nonaudit services are provided;

(ii) such services were not recognized by the issuer at the time of the engagement to be non-audit services; and

(iii) such services are promptly brought to the attention of the audit committee of the issuer and approved prior to the completion of the audit by the audit committee or by 1 or more members of the audit committee who are members of the board of directors to whom authority to grant such approvals has been delegated by the audit committee.

(2) DISCLOSURE TO INVESTORS. - Approval by an audit committee of an issuer under this subsection of a non-audit service to be performed by the auditor of the issuer shall be disclosed to investors in periodic reports required by section 13(a).

(3) DELEGATION AUTHORITY. - The audit committee of an issuer may delegate to 1 or more designated members of the audit committee who are independent directors of the board of directors, the authority to grant preapprovals required by this subsection. The decisions of any member to whom authority is delegated under this paragraph to preapprove an activity under this subsection shall be presented to the full audit committee at each of its scheduled meetings.

(4) APPROVAL OF AUDIT SERVICES FOR OTHER PURPOSES. - In carrying out its duties under subsection (m)(2), if the audit committee of an issuer approves an audit service within the scope of the engagement of the auditor, such audit service shall be deemed to have been preapproved for purposes of this subsection."

Exhibit B

Interoffice Memorandum

To: Finance and Audit Committee
From: M. Petterson
Date: December 5, 2006
Re: ERCOT Financial Materiality

OBJECTIVE

Summarize and provide rationale, support, and background for management's conclusions regarding the type and size of transactions considered material to ERCOT's financial statements taken as a whole.

For purposes of this assessment, materiality is defined as a transaction or series of transactions that if inaccurately recorded may create substantial likelihood that the judgment of a reasonable person relying on ERCOT's financial reports would have been changed or influenced by the different accounting of the transactions.

CONCLUSIONS

Assessments of financial materiality should be conducted on a case-by-case basis considering pertinent situational facts. Any blanket statement regarding what constitutes financial materiality does not limit the company's ability to respond to specific situations and issues. Nonetheless, there are beneficial business purposes for making a generalized statement regarding financial materiality including the following:

1. Guide and demonstrate prudent fiscal management
2. Establish the "tone at the top" regarding internal control objectives – an important control in its own right
3. Communicate the importance of protecting the organization's reputation from the risks posed by erroneous financial accounting and financial statements
4. Ensure the establishment of cost beneficial internal control objectives by focusing resources on areas of higher risk
5. Help staff to evaluate and respond to key control exceptions such as
 - a. Misstatement or error,
 - b. Internal control deficiency,
 - c. Accounting estimates, and
 - d. Fraud.

Management expects that all transactions will be accurately, consistently, completely, and timely accounted for and, when consolidated, fairly present the company's financial position. Any direction, in general terms, as to what is "material" to the company's financial statements is not an excuse for sloppy accounting or poor control below established thresholds.

In addition, a generalized conclusion on financial materiality is not a substitute for prudent, attentive management. Management is expected to carry out materiality assessments on a case-by-case basis considering qualitative factors (certain activity must be considered material regardless of the quantitative impact) and quantitative measures (established dollar thresholds are just one factor of many to be considered).

Several qualitative considerations that might be important in materiality assessments include the following:

- Does the transaction have a significant impact on the ERCOT System Administration Fee?
- Does the transaction mask a financial trend?
- Does the transaction change an income into a loss or vice versa?
- Does the transaction affect regulatory compliance?
- Does the transaction have the effect of increasing management compensation?
- Does the transaction affect compliance to loan covenants?
- Does the transaction involve concealment of unlawful transactions?
- Does the transaction have impact on the volatility of ERCOT's securities?
- Has management intentionally misstated items in the financial statements to "manage" reported earnings?
- Does the transaction significantly alter the total mix of financial information made available?

There are rule of thumb measures for materiality, such as 1 percent of revenue or operating expenses. ERCOT's important public service responsibilities affect materiality assessments by requiring relatively higher standards of performance and relatively lower quantitative thresholds. As a result, applying such rule of thumb measures at ERCOT would establish thresholds of materiality which have been deemed too high.

Considering ERCOT's public service responsibilities, recent events and history, and pertinent qualitative and quantitative issues, ERCOT management believes that transactions representing more than 0.25 percent of total company revenue or 5 percent of minimum operating expense line items on its statement of activities (approximately \$350,000 or \$0.0011 per MWh) should be considered material – whether occurring as a single transactions or combination of transactions. Transactions of such magnitude, if inaccurately recorded, may create substantial likelihood that the judgment of a reasonable person relying on ERCOT's financial reports would have been changed or influenced by the different accounting of the transactions.

Transactions that approach or exceed the general thresholds for materiality or which require unusual management interpretation or estimation will be communicated to senior management and members of the Finance and Audit Committee of the Board as appropriate.

RATIONALE, SUPPORT, AND BACKGROUND

ERCOT is a non-profit entity subject to regulatory oversight by the Public Utility Commission of Texas. ERCOT is a breakeven entity and its fees are established to recover its costs of operations or revenue requirements which can be summarized into three categories:

1. Operating and maintenance expenses,
2. Debt service obligations (principal and interest), and
3. A portion of capital project expenditures (approximately 40 percent for planning purposes).

ERCOT is designed, structured, and organized to generate little if any net income or net unrestricted assets (equity). Financial ratios based on net income or net unrestricted asset figures are a secondary consideration to users of the company's financial statements.

The definition of materiality as established above makes important reference to the conclusions and actions that users of ERCOT's financial statements make in response to the financial statements. Users of ERCOT's financial statements have generally demonstrated greater interest in ERCOT's relationship with the PUCT and the company's ability to recover fees sufficient to allow repayment of debt service obligations and operating expenses than they have with net income and profitability measures. As a result, in deriving its conclusions management places heightened importance on qualitative factors and quantitative ratios relating to total assets and total expenses.

As a result of its organization as a cost pass-through, not for profit organization, subject to regulatory oversight, ERCOT management believes that many traditional, financial measures of materiality may not be appropriate for the assessment of materiality in connection with ERCOT's financial statements. The situation again leads management to place heightened importance on qualitative factors and quantitative ratios relating to total assets and total expenses when evaluating materiality issues.



DRAFT

Exhibit C
Proposed Agenda for Credit Workshop
7620 Metro Center Drive
January 2006*

Agenda Item #	Description/Purpose/Action Required	Presenter	Time
	Call to Order	TBD	TBD
1.	Overview of legal / policy directives regarding financial stability of the ERCOT market (e.g. credit issues)	TBD	TBD
	• Legal considerations	TBD	TBD
	• Other considerations	TBD	TBD
2.	What is ERCOT, Inc. and the ERCOT Board of Director's role with respect to credit in the ERCOT market?	TBD	TBD
3.	How to maintain the right environment	TBD	TBD
	• Establish a standard of measure (what is the goal?)	TBD	TBD
	• Determine how to balance financial stability with potentially competing goals (i.e. market liquidity, barrier to entry issues)	TBD	TBD
	• Maintain or establish processes or governance structures to accomplish goal (i.e. Credit WG governance, etc)	TBD	TBD
	• Other	TBD	TBD
4.	Review current level of credit exposure	TBD	TBD
	• Amount	TBD	TBD
	• Parties bearing risk	TBD	TBD
5.	How to determine how much credit risk is too much? Or how to determine that the market is "financially stable"?	TBD	TBD
	• Market Opinion	TBD	TBD
	– TAC	TBD	TBD
	– Credit Work Group	TBD	TBD
	• ERCOT Staff Opinion	TBD	TBD
	• Third party independent assessment	TBD	TBD
	• Other/PUCT	TBD	TBD
6.	Next steps	TBD	TBD
	Adjourn	TBD	TBD

Action Items

- Review proposed agenda
- Confirm meeting date and time allocation

Exhibit D

Interoffice Memorandum

From: M. Petterson
To: Finance & Audit Committee
Date: December 5, 2006
Re: Accounting for the Texas Nodal Market Implementation Program

Objective

1. Summarize the accounting practices that will be used to capture and report the costs of supporting the Texas Nodal Market Implementation Program (TNMIP).

Practices

In relation to ERCOT's TNMIP effort it will be necessary for accounting records to distinguish program costs in two important ways:

- (1) costs that should be treated as capitalized investment and depreciated over time versus those that should be treated as operating expense in the current accounting period and
- (2) costs that should be recovered via the approved Nodal Surcharge versus those that should not.

Capital Investment versus Operating Expense - Accounting rules and ERCOT policies do not leave much latitude for discretion regarding the capitalization of expenditures. Accounting staff will continue to evaluate company expenditures, including those relating to the TNMIP, to ensure accounting treatment is consistent with accounting principles generally accepted in the United States of America, such as Statement of Position 98-1 (SOP 98-1) Accounting for the Costs of Computer Software Developed or Obtained for Internal Use, and approved company policies, standards, and procedures.

Nodal Surcharge Recovery versus Alternative Recovery Method - The issue of identifying the costs that should be recovered via the Nodal Surcharge is more subjective, and as a result, in many ways, more complicated. In October, TNMIP staff and ERCOT accounting staff worked with consultants from Sirius Solutions, L.L.P. to produce a document to guide accounting for TNMIP transactions. The document (attached) establishes the framework ERCOT staff will employ in accounting for the project and seeking reimbursement via the Nodal Surcharge.

Attachment: ERCOT Nodal Market Surcharge, Project Cost Methodology, October 30, 2006.

ERCOT Nodal Market Surcharge Project Cost Methodology

1. Background

In Docket Number 32686, the Electric Reliability Council of Texas (ERCOT) filed an application with the Public Utility Commission of Texas (PUC) for the approval of a Nodal Implementation Surcharge (NIS). Nodal refers to The Texas Nodal Market Implementation Program (TNMIP), which exists to facilitate the transition from a Zonal market, currently divided into five (5) Congestion Management Zones, to a Nodal market with more than four thousand (4000) nodes. The surcharge was approved via an interim order to fund the cost of implementation of the Nodal market and the payment by qualified scheduling entities (QSE's) representing generation. The separate funding source for the Nodal surcharge requires accounting changes within ERCOT to separate costs funded under the System Administration Fee (SAF) which is used to pay for the ongoing operations of ERCOT. Heretofore, the vast majority of all ERCOT costs were funded under the SAF paid by QSE's representing load only. With costs now being shared by two constituencies, ERCOT is faced with making a determination of fairly and reasonably apportioning costs between them. This issue is the subject of this report.

ERCOT has engaged Sirius Solutions LLLC ("Sirius") to perform certain tasks as part of ERCOT's internal process to respond to the PUC's order to validate or change the interim Nodal surcharge. This report was prepared for that purpose and is to be used for review by ERCOT and the PUC in order to set forth a framework for the apportionment of these costs by identifying which costs should be reasonably recovered under the Nodal surcharge. As part of this engagement, Sirius performed the following tasks:

- a) Obtained an understanding of ERCOT's costs, general ledger and cost accounting structure;
- b) Reviewed existing cost allocation frameworks and concepts developed by ERCOT Finance/Accounting personnel and ERCOT's Texas Nodal implementation Program team;
- c) Reviewed PUC rules and regulations applicable to ERCOT specifically or electric utilities cost allocation generally;
- d) Identified all (directly) assignable costs for each general ledger (or sub-ledger) account;
- e) Determined a reasonable and efficient factor (or factors) and method by which to allocate directly allocable costs;
- f) Determined a reasonable and efficient factor (or factors) and method by which to apportion indirectly "apportionable" costs;
- g) Drafted a preliminary ERCOT cost allocation manual; and,
- h) Prepared an assessment of additional studies and work to be completed to finalize the cost allocation manual for audit and/or presentation to the PUC.

This report sets forth a cost allocation framework of the Nodal implementation program to be considered by the PUC, included within the Nodal surcharge filing scheduled to be delivered to the PUC on November 27, 2006. However, neither this report nor the scope of the engagement

should be construed to be a full cost causation analysis or cost study of the budget needed for delivering the Nodal Program. Given the subjective nature of the issues involved in the allocation of costs for programs such as the Nodal transition, we do not believe the costs of such a study would benefit ERCOT or the PUCT.

2. Executive Summary

Although the financial reporting for a program such as the Nodal implementation is reasonably well defined by Generally Accepted Accounting Principles (GAAP), the rules associated with project costing and related allocations are not. Our review of publicly available rate filings suggests there is a diverse practice in approach to program/project cost methodology and funding. Our research also indicates there is a lack of authoritative accounting guidance to support any specific framework.

In planning this work, we evaluated three alternative approaches for tracking of ERCOT's Nodal Program costs:

1. Direct Cost
2. Incremental Cost
3. Fully Distributed Cost

Direct Cost – This approach would consider only those costs directly related to the Nodal Program. This is a framework whereby only costs such as external labor or hardware are considered a part of the Nodal Program. This approach was not selected because it was determined that it was not an accurate reflection of the total costs associated with the Nodal Program, as it did not include significant labor components and other indirect costs.

Incremental Cost – This approach would assume only those costs incurred above and beyond the ongoing operating costs of ERCOT as a whole would be recovered under the Nodal surcharge. Although this framework more closely represented actual Nodal Program costs, it was not selected because it did not reflect the cost of certain internal ERCOT resources dedicated as part time or full time program resources. It also ignored certain shared labor and indirect costs.

Fully Distributed Cost – This approach considers all costs related to the Nodal Program whether they are external or internal in nature. This framework was selected because it more accurately reflects the actual resources devoted by ERCOT and utilized by the Nodal Program.

At its essence, the Nodal Program is a discrete program with a defined start and end. More precisely, it is a set of individual projects or functional work streams that are managed jointly as a program in support of the transition to a Nodal market scheduled to “go live” on December 8, 2008. As of September 2006, the ERCOT Nodal team estimated the Nodal implementation costs to be \$263 million. ERCOT management is aware that some of this amount relates to projects which would have been undertaken irrespective of the transition to a Nodal market, since there were certain upgrades to the ERCOT technology infrastructure which would have occurred even if ERCOT had remained Zonal. Since there are interdependencies between these Zonal projects and the Nodal Program, they must be managed together with the Nodal transition to mitigate overall program delivery risk, as well as for efficiency purposes. However, only the costs directly attributable to the Nodal Program should be included in the Nodal surcharge. This will be discussed in detail later in this report.

After completion of this report, ERCOT intends to revise its estimate of costs which should be funded by the Nodal surcharge.

3. ERCOT's Cost Tracking and Fee Collection

ERCOT has implemented certain controls around the tracking and managing of Nodal Program costs. They believe these controls are consistent with all approved ERCOT policies, standards and procedures. Each of the individual Nodal projects, or "work streams", is led by a project manager who is responsible for monitoring their portion of costs against budget. Reports are provided by ERCOT accounting to the project managers for review to insure that cost data for their respective projects is monitored.

A separate accounting ledger has been created in ERCOT's accounting system for the Nodal Program to insure that tangible (hardware/software) and intangible (time) costs for the program are recorded separately from ERCOT's day to day operational costs.

For time costs, all ERCOT employees assigned to the Nodal Program record hours worked in the time tracking system against a specifically approved project and activity. For hardware, software and other purchases necessary to implement the Nodal Program, the standard ERCOT procurement and accounts payable processes will continue to be in effect, but coding is to the separate Nodal accounting ledger.

The Nodal Program Management Office will have overall responsibility for insuring that each individual project in the program is delivered in a timely fashion as well as monitoring the overall program budget. The Nodal Program Management Office has already passed an IBM Project Controls audit, which assessed the program's financial and project management controls. Further, Sirius understands there will be audits of the program by IBM and ERCOT internal audit staff conducted at regular intervals to be determined by ERCOT management.

The funding mechanism for the Nodal Program is the Nodal Implementation Surcharge ("NIS"), which is paid by QSE's representing generation. This charge is calculated based on net metered generation as defined in the Nodal protocol sections 9.4.4 and 9.7.7, as amended by PRR 688 to comply with the Final Order issued in PUCT, Docket No. 32686, Application of the Electric Reliability Council of Texas for Approval of a Nodal Market Implementation Surcharge and Request for Interim Relief. ERCOT shall calculate the NIS by multiplying total net metered generation by a Nodal surcharge factor. The Nodal surcharge factor will be a flat rate as authorized by the PUCT. The NIS will appear as a separate Market Service on the Settlement Statement. ERCOT shall charge the NIS on a daily basis, broken down by the appropriate quantity per settlement interval. QSE total net metered generation will be the total of the net metered generation aggregated to the QSE level. ERCOT will charge the NIS until it has recovered the full cost of implementing the Nodal market redesign, at which time the NIS will end.

The budget amounts estimated by ERCOT will be revised from time to time based on project progress and actual costs as they become known. This could cause a change in the NIS over the time of the transition.

4. Nodal Program Costs

The fully distributed costing framework described in this report is based on the fact that both direct and indirect costs can be identified based upon the activity to which the costs were intended

to benefit. In general, we believe that it is appropriate that the cost of the Nodal program (and the cost to be recovered through the Nodal surcharge) include all actual costs – direct and indirect attributable to implementing the Nodal protocols.

Nodal Program personnel have classified program costs into four categories, as follows, the amounts of which are set forth in Table 4-1 below.

- Internal labor - ERCOT employee time and related overhead
- External labor - Contractor/consultant time and billings
- Vendor labor - Software vendor time and effort
- Hardware/Software/Miscellaneous costs

	Nodal Program Projects	Internal Labor	External Labor	Vendor Labor	Hardware & Software	Total
1	Program Mgt Office	\$222,300	\$3,851,440	\$3,000,000	\$27,415	\$7,101,155
2	Integration and Design Authority	\$1,020,825	\$3,855,940	\$0	\$1,893,961	\$6,770,726
3	Network Model Mgt System	\$1,045,200	\$1,372,600	\$10,121,621	\$150,000	\$12,689,421
4	Energy Mgt System	\$4,333,160	\$794,565	\$10,104,225	\$2,259,000	\$17,490,950
5	Market Mgt System	\$3,409,120	\$6,007,200	\$13,500,000	\$3,355,000	\$26,271,320
6	Congestion Revenue Rights	\$1,065,480	\$1,800,840	\$792,000	\$2,600,186	\$6,258,506
7	Commercial Systems	\$5,561,400	\$5,112,200	\$3,905,235	\$200,000	\$14,778,835
8	Enterprise Integration	\$2,917,200	\$7,799,200	\$0	\$1,607,460	\$12,323,860
9	Enterprise Data Warehouse	\$2,492,800	\$1,544,000	\$0	\$0	\$4,036,800
10	Infrastructure	\$2,191,800	\$5,547,520	\$1,759,300	\$52,341,787	\$61,840,407
11	Integration Testing	\$4,691,272	\$11,349,461	\$0	\$936,650	\$16,977,383
12	MP Engagement and Readiness	\$4,503,850	\$11,394,780	\$4,377,209	\$1,268,039	\$21,543,878
13	ERCOT Readiness and Transition	\$13,133,224	\$16,146,615	\$0	\$0	\$29,279,839
	Project Subtotals	\$46,587,631	\$76,576,361	\$47,559,590	\$66,639,498	
14	Finance Charge (4%)					\$10,600,000
15	Contingency (6%)					\$15,000,000
					Total Cost of Nodal	\$262,963,080

Table 4-1: ERCOT Estimate by Nodal Program Project

Note: Each of the Nodal Program projects (or work streams) is described more fully in Exhibit 1. This Exhibit sets forth a brief description of each project in the above table, the key deliverables and estimation assumptions.

As a part of this engagement Sirius reviewed a number of internal ERCOT reports and documents, including ERCOT accounting ledgers, ERCOT financial statements, detailed Nodal

budget estimates, and summarized vendor RFP responses. The purpose of this review was to identify the nature of costs allocable to the Nodal effort and suggest a framework for apportionment of these costs for ERCOT’s determination of the Nodal surcharge. Within the work streams shown in Table 4-1, we found varying cost types. These are set forth in Table 4-2 below and consist of direct and indirect, as well as internal and external costs.

The direct costs are easily discerned and can be charged directly to the program ledgers. They consist of third party vendor billings for items such as consultant time, hardware, and software. They are also specific to the Nodal Program projects listed in Table 4-1. Furthermore, there is not a great deal of judgment involved as to their inclusion or amount in the Nodal surcharge. Indirect costs are more difficult to discern. By their nature, they are not easily identifiable within the Nodal Program because they consist of items such as ERCOT employee time charged to the program on a part-time basis and shared services (e.g. legal, accounting, facilities, etc.). As a practical matter, there is no question on a fully distributed cost basis as to their inclusion. However, there will be judgment required in determining the apportioned amounts. Table 4-2 below reflects the cost types which we recommend be charged to the Nodal Program. Each is identified as direct or indirect and the allocation base is stated or reference is made to where the allocation methodology is discussed in this report.

Cost Type	Direct or Indirect	Allocation Base
Labor		
ERCOT Dedicated / Part-Time	Direct	See Section 5.1 Actual payroll plus burden
ERCOT Part-Time	Indirect	see Section 5.1
ERCOT Shared(Support Services)	Indirect	see Section 5.3
Supplies	Direct	Third party invoices
Contractors	Direct	Third party invoices and contracts
Hardware	Direct	Third party invoices
Software	Direct	Third party invoices
Hardware support	Direct	License/Maintenance Agreements
Software support	Direct	License/Maintenance Agreements
Facilities	Indirect	see Section 5.2
Finance charges	Direct	see Section 5.9
ERCOT Training costs	Direct	Actual payroll plus burden
Contingency	Direct	see Section 5.10

Table 4-2: Cost Types within Nodal Program Projects

5. Adjustments and Allocation Frameworks

As indicated above, all estimates comprising the Nodal budget are based on third party RFP’s, estimates of direct internal labor hours and rates, and allocations of internal costs. ERCOT accounting systems are capable of capturing actual costs and these estimates will be adjusted accordingly as the actual amounts become known. The actual costs of the Program may vary materially from the current program budget, which may impact the amount of the surcharge.

ERCOT, as represented by the Nodal Program office, will revise its program cost forecast monthly and report the same to the PUCT as often as the PUCT dictates. Actual costs (internal and external), hardware and software costs will be recorded to the Nodal Program's accounting books as these costs are incurred.

In the context of funding, there are a number of considerations which impact the amount which should be recovered in the surcharge. This section of the report sets forth those matters, of which we have become aware, and describes certain allocation frameworks for consideration in determining the final program funding by the surcharge.

5.1. Labor Rate

ERCOT has estimated the fully burdened labor rate to be \$65/hour for ERCOT staff. Sirius reviewed the components that were included in the \$65/hour labor rate with Michael Petterson, ERCOT Controller, and determined that the labor rate was reasonable for use in project planning and budgeting and the components contained therein were reasonable. While we recognize this amount is an estimate, there is a wide variation in the skill level of internal resources and each individual Nodal Program project should reflect that difference. ERCOT accounting personnel are working with the Nodal PMO to identify internal resources by name, and may revise the labor rates to each project accordingly, if actual labor costs are materially different than the estimates.

As a matter of reference, the categories of labor involved in the Nodal Program are: dedicated and part-time (direct charged to the Nodal Program) or support services (allocated as an indirect charge to the Nodal Program).

Dedicated and part time labor costs will be charged to the Nodal projects each month based on actual pay rates of employees contributing to the Nodal program and the hours recorded to various Nodal project tasks by ERCOT employees. The hours recorded to the Nodal projects are also approved by ERCOT employee managers and confirmed by Nodal project managers.

ERCOT Accounting will report overall hours charged to the Nodal Program by employee by pay period, as well as a lump sum labor cost by project within the program. This will allow accurate reporting of actual program labor costs, while protecting the confidentiality of individual ERCOT employee salaries. The Nodal PMO will insure that time charged to the project will be captured accurately and timely, and will review the summary time reports from ERCOT Accounting. The Nodal PMO is responsible for reporting issues and discrepancies, as well as requesting prior period adjustments as needed to insure accuracy and completeness of time reporting.

The allocation of Support Services labor costs is addressed in Section 5.3.

Consistent with our recommendation that the Nodal program costs should include direct as well as indirect expenses, we believe ERCOT plans to directly charge labor to the Program as well as allocate a portion of support services labor is a reasonable approach.

5.2. Facilities Framework

Facilities (overhead) charges could be determined in a number of acceptable ways using a number of factors. Example frameworks include: flat fee, square-footage occupancy, or a "seat "charge, etc. We suggest a square footage method, where the allocation is based on the average square

footage consumed by Nodal Program personnel and the average cost of maintaining ERCOT facilities and systems.

Facilities charges will be allocated to the Nodal Program following the steps summarized below.

1. Accounting staff will periodically compute ERCOT's average costs of maintaining its facilities by dividing total facilities costs by the total number of square feet in its facilities.
2. Accounting staff will periodically compute the average square footage consumed by an ERCOT FTE.
3. Accounting staff will periodically compute the average square footage of space consumed by the limited number of FTEs located in the Nodal Program team rooms. Given the relatively short term nature of the Nodal program and space needs of the project team coupled with the desire to have project team members working in close proximity to one another, many members of the project implementation team are arranged in work rooms of significantly higher density than normal ERCOT office space.
4. Accounting staff will periodically determine the maximum number of FTEs that can be accommodated in the high-density Nodal program team rooms.
5. Accounting staff will compute the number of FTEs working on the Nodal program each month based on hours submitted by ERCOT employees and a count of contractors and consultants on site in connection with the Nodal program.
6. Accounting staff will compute the average square footage of ERCOT office space consumed by FTEs contributing to Nodal projects assuming the high-density Nodal team rooms are filled to capacity. Accounting staff will multiply the average cost per square foot of maintaining ERCOT facilities by the average square footage of ERCOT office space consumed by FTEs contributing to Nodal projects assuming the high-density Nodal team rooms are filled to capacity.

5.3. Support Services Framework

The current \$263MM Nodal Program budget does not reflect a detailed estimate of the support costs necessary for services such as: Executives, Legal, Accounting, Human Resources, Procurement, etc. Example acceptable frameworks include flat fee, shared service percentage, transaction-based, time-based, etc. We believe the most acceptable and efficient method is based on a pro rata percentage of total Support Services operating expense as compared to total ERCOT spending authorization. Spending authorization includes both capital project expenses as well as operating expenses. These amounts are reported each April in ERCOT's yearly financial statements. This pro rata percentage would be set each year when the final financial statements are released to the PUCT, and be in effect until the following April, when the next year's financial statements are similarly released.

Monthly Support Services Allocation = (Operating Expenses for Legal, Accounting, HR, Procurement and Executives / Total ERCOT Spending Authorization) * Monthly Nodal budget

5.4. Network Model Management System (NMMS)

The NMMS Project was underway before the Nodal Program commenced. Now that the Nodal Program exists, the NMMS scope has increased to accommodate Nodal-specific requirements. Although much of the NMMS development and all of the State Estimator/Network Model fidelity work is for the Zonal market (with benefit continuing after the move to the Nodal market), the balance is Nodal related.

Inclusion of NMMS costs currently in the \$263MM budget should only be associated with the scope changes attributed to the Nodal Program. The basis for the NMMS Zonal Cost is a recommendation made to the ERCOT Board of Directors by Steve Byone, ERCOT Vice President and CFO, on October 17, 2007. The Nodal Program Team, in concert with ERCOT operations managers, made this determination by reviewing each NMMS requirement and assigning it as either being required by the Nodal market or Zonal market, and then removing the corresponding estimated cost to implement from the NMMS budget. The NMMS Zonal cost was determined to be approximately \$12MM.

$$\text{NMMS Nodal Cost} = \$12,689,421 - \text{NMMS Zonal Costs}$$

$$\text{NMMS Nodal Cost} = \$12,689,421 - 12,000,000 = \$689,421$$

5.5. Energy Management System (EMS)

The EMS Project was also underway before the Nodal Program. Now that the Nodal Program exists, EMS scope has increased to accommodate Nodal-specific requirements. Although much of the EMS development is for the Zonal market, the balance is Nodal related.

Inclusion of EMS costs currently in the \$263MM budget should only be associated with the scope changes attributed to the Nodal Program. The basis for the EMS Zonal Cost is a recommendation made to the ERCOT Board of Directors by Steve Byone, ERCOT Vice President and CFO, on October 17, 2007. The Nodal Program Team, in concert with ERCOT operations managers, made this determination by reviewing each EMS requirement and assigning it as either being required by the Nodal market or Zonal market, and then removing the corresponding estimated cost to implement from the EMS budget. The EMS Zonal cost was determined to be approximately \$8MM.

$$\text{EMS Nodal Cost} = \$17,490,950 - \text{EMS Zonal Cost}$$

$$\text{EMS Nodal Cost} = \$17,490,950 - 8,000,000 = \$9,490,950$$

5.6. Infrastructure (INF) Adjustment

The INF project was underway before the Nodal Program, as well. Now that the Nodal Program exists, INF scope has increased to accommodate Nodal-specific requirements. In this case, only enhancements were necessary to the networking infrastructure to meet the Nodal requirements. The UNIX end-of-life, the data center virtualization and the EDW storage, Oracle support and hardware were previously Zonal market related.

Inclusion of Infrastructure costs currently in the \$263MM budget should only be associated with the scope changes attributed to the Nodal Program. The basis for the Infrastructure Zonal Cost is a recommendation made to the ERCOT Board of Directors by Steve Byone, ERCOT Vice President and CFO, on October 17, 2007. The Nodal Program Team, in concert with ERCOT operations managers, made this determination by reviewing each Infrastructure requirement and assigning it as either being required by the Nodal market or Zonal market, and then removing the corresponding estimated cost to implement from the Infrastructure budget. The Infrastructure Zonal cost was determined to be approximately \$17MM.

$$\text{INF Nodal Cost} = \$61,840,407 - \text{INF Zonal Cost}$$

$$\text{INF Nodal Cost} = \$61,840,407 - \$17,000,000 = \$44,840,407$$

5.7. Nodal Program Start Date

ERCOT was in a position to capture Nodal Program costs in January of 2006, with first actual costs being incurred in February of 2006. This allowed ERCOT to commence planning for the Nodal Program although final approval for the Nodal market protocols occurred in PUCT Docket Number 31540 dated on April 5, 2006. Based on a review of costs incurred prior to April 5, ERCOT's commencement date appeared reasonable.

5.8. Nodal Program End Date

The Nodal market in Texas is scheduled to be implemented on December 8, 2008. As with any large software and hardware project, there will be post implementation costs associated with the Nodal Program. These costs include additional training, follow-on enhancements, "bug" fixes or other code remediation. We recommend these costs be estimated by ERCOT and included in the Nodal surcharge.

5.9. Finance Charge Adjustment

ERCOT's originally estimated finance charge is approximately 4% of the entire program budget.

While this calculation may be acceptable for budget purposes, the actual finance charges should be based on actual debt incurred to finance the program costs versus the funding actually recovered under the Nodal surcharge. The true financing costs will be determined by calculating the monthly cash inflow from the Nodal surcharge versus the cash outlays for program costs based in part on the payment terms negotiated with the corresponding vendors, while using the actual ERCOT borrowing rate in effect over the cost recovery period. This is presently approximately 6%; this rate should be used to calculate the interest expense for purposes of establishing the Nodal surcharge. The financing cost of the program will be handled the same as other cash outlays for the program, and included in the total cost. Interest costs will be calculated by ERCOT on this basis after the revisions described in this section. The total financing cost given the expected cost recovery period will be significantly higher than the originally estimated finance charge.

5.10. Contingency Adjustment

ERCOT has established a project contingency of 6%; we believe this is on the low end of an acceptable range for this project. Due to the size and complexity of the Nodal Program, a contingency of up to 20% or more could be justified to account for the lack of firm business requirements at this early stage of the program. Given the fact that ERCOT will monitor budget-to-actual on a monthly basis, this amount can be adjusted as necessary when actual amounts are incurred.

6. Summary

In summary, we believe ERCOT has made a reasonably thorough estimate of its Nodal Program cost. While there could be changes to these initial estimates or methodologies as discussed in Section 5 above, the incorporation of a mechanism to adjust the surcharge rate during the transition process would improve the probability that costs collected under the surcharge are reasonably inclusive.

Exhibit I – Supporting Detail for Nodal Program Costs

1. Program Management (PMO)

The Program Management (PMO) project provides program leadership, organization, mobilization, strategic planning and delivery assurance. PMO is meant to deliver the following:

- Program organization & governance
- Program charter
- Program management corporate standard & operating procedures
- Integrated plans, controls and reporting
- Program risk management
- Executive stakeholder management

The Nodal Program estimated cost of PMO is \$7.10MM as follows:

PMO	\$
Internal Resource Costs	\$222,300
External Resource Costs	3,851,440
Vendor Labor	3,000,000
Hardware, Software, misc.	27,415
Total	\$7,101,155

Table 1: PMO Cost Summary

2. Integration & Design Authority (IDA)

The Integration & Design Authority (IDA) project consists of the business architecture and technical architecture for the program and the design standards and design assurance for the program. IDA is meant to deliver the following:

- Overall business and technical architecture
- Guidance on contracts and Vendor selection
- Strategies & Roadmaps for Integration, Enterprise Data Warehouse, MIS, hardware, security, database hosting, User Interface design, XML standards
- Rational Unified Process (RUP) artifacts and training
- Technical architecture assistance
- Quality Assurance (QA)
- Requirements traceability
- User Interface Standards

The Nodal Program estimated cost of IDA is \$6.77MM. as follows:

IDA	\$
Internal Resource Costs	\$1,020,825
External Resource Costs	3,855,940
Vendor Labor	-
Hardware, Software, misc.	1,893,961
Total	\$6,770,726

Table 2: IDA Cost Summary

3. Network Model Management System (NMMS)

The Network Model Management System (NMMS) project provides the capability to generate Planning and Network Models for Real-Time, Day-Ahead and Future applications and studies. NMMS is meant to deliver the following:

- Naming Conventions
- State Estimator Criteria
- Network Modeling & Telemetry (proof of required fidelity)
- Requirements for TPTF approval
- Conceptual System Design for TPTF approval
- Time based Network Operations and Planning Model Management System

The Nodal Program estimated cost of NMMS is \$12.69MM. as follows:

NMMS	\$
Internal Resource Costs	\$1,045,200
External Resource Costs	1,372,600
Vendor Labor	10,121,621
Hardware, Software, misc.	50,000
Total	\$12,689,421

Table 3: NMMS Cost Summary

4. Energy Management System (EMS)

The Energy Management System (EMS) project implements the necessary changes to ERCOT's current Energy Management System (EMS), implements the new Renewal Production Potential (RPP) function, and upgrades the current ERCOT EMS. EMS is meant to deliver the following:

- Requirements for TPTF approval
- Conceptual System Design for TPTF review
- EMS platform upgrade & ERCOT customizations
- Network Security upgrade and Load Frequency Control
- Migration of enhanced Zonal Load Forecast to Nodal
- New RPP

The Nodal Program estimated cost of EMS is \$17.49MM as follows:

EMS	\$
Internal Resource Costs	\$4,333,160
External Resource Costs	794,565
Vendor Labor	10,104,225
Hardware, Software, misc.	2,259,000
Total	\$17,490,950

Table 4: EMS Cost Summary

5. Market Management System (MMS)

The Market Management System (MMS) project provides business processes and systems for the Nodal Real-Time and Day-Ahead Energy and AS Markets and Outage Scheduler. MMS is meant to deliver the following:

- Requirements for TPTF approval
- Conceptual System Design for TPTF approval
- Day Ahead Market capability
- Supplemental AS Market capability
- Reliability Unit Commitment capability
- Security Constrained Economic Dispatch (Real Time Market) capability
- DC Tie
- Data for Wholesale Market Monitoring
- Outage Scheduler

The Nodal Program estimated cost of MMS is \$26.27MM as follows:

MMS	\$
Internal Resource Costs	\$3,409,120
External Resource Costs	6,007,200
Vendor Labor	13,500,000
Hardware, Software, misc.	3,355,000
Total	\$26,271,320

Table 5: MMS Cost Summary

6. Congestion Revenue Rights (CRR)

The Congestion Revenue Rights (CRR) project provides business processes and systems to allow CRR Owners to be charged or receive compensation for congestion rents that arise when the ERCOT Transmission Grid is congested in the Day-Ahead Market (DAM) or in Real-Time. CRR is meant to deliver the following:

- Requirements for TPTF approval, Conceptual System Design for TPTF approval
- PCRR and MCFRI allocation capability
- CRR auction capability
- CRR ownership tracking capability and Bilateral trading capability

The Nodal Program estimated cost of CRR is \$6.26MM.

CRR	\$
Internal Resource Costs	\$1,065,480
External Resource Costs	1,800,840
Vendor Labor	792,000
Hardware, Software, misc.	2,600,186
Total	\$6,258,506

Table 6: CRR Cost Summary

7. Commercial Systems (COMS)

The Commercial Systems (COMS) project provides business processes and systems for Settlements and Billing, Data Aggregation, Metering, Load Profiling, Credit Monitoring, Registration, Disputes and Financial Transfer. COMS is meant to deliver the following:

- Requirements for TPTF approval
- Settlement payments and charges for Day Ahead, RUC, Real Time, Ancillary Services, and CRRs
- Credit monitoring and management capabilities
- Invoicing capabilities
- Registration capabilities
- Disputes capabilities
- Financial Transfer capabilities

The Nodal Program estimated cost of COMS is \$14.78MM as follows:

COMS	\$
Internal Resource Costs	\$5,561,400
External Resource Costs	5,112,200
Vendor Labor	3,905,235
Hardware, Software, misc.	\$200,000
Total	\$14,778,835

Table 7: COMS Cost Summary

8. Enterprise Integration (EIP)

The Enterprise Integration (EIP) project provides the technical integration/infrastructure for the program. EIP is meant to deliver an interface approach, common interface architecture and interfaces for the program.

The Nodal Program estimated cost of EIP is \$12.32MM as follows:

EIP	\$
Internal Resource Costs	\$2,917,200
External Resource Costs	7,799,200
Vendor Labor	-
Hardware, Software, misc.	1,607,460
Total	\$12,323,860

Table 8: EIP Cost Summary

9. Enterprise Data Warehouse (EDW)

The Enterprise Data Warehouse (EDW) project provides the capability to collect historic data and provide information services to Market Participants, PUCT, WEMM and FERC, perform data analysis. EDW is meant to deliver the following:

- EDW strategy and roadmap
- EDW Governance structure
- Requirements for TPTF approval
- Business Intelligence – dynamic reporting (CDW framework)
- Business Intelligence – standard reporting (including internal, MOMS, Market, Compliance, Credit reporting)
- Operational Data Stores (including Lodestar, EMMS ODS)
- Market data extracts
- Information replication (ODS, RSS replication)

The Nodal Program estimated cost of EDW is \$4.04MM as follows:

EDW	\$
Internal Resource Costs	\$2,492,800
External Resource Costs	1,544,000
Vendor Labor	-
Hardware, Software, misc.	-
Total	\$4,036,800

Table 9: EDW Cost Summary

10. Infrastructure (INF)

The Infrastructure (INF) project involves the development, testing, EDS and production environments across the Program. INF is meant to deliver the following:

- Hardware specifications
- Hardware procurement
- Data center capacity resolution
- IT Services Catalogue
- Service Level Agreements for all Nodal projects
- Project development & test (FAT) environments
- Integration testing (ITEST) environments

- EDS environments
- Production environments

The Nodal Program estimated cost of INF is \$61.84MM as follows:

INF	\$
Internal Resource Costs	\$2,191,800
External Resource Costs	5,547,520
Vendor Labor	1,759,300
Hardware, Software, misc.	52,341,787
Total	\$61,840,407

Table 10: INF Cost Summary

11. Integration Testing (INT)

The Integration Testing (INT) project consists of ERCOT functional, integration and user acceptance testing for the program. INT is meant to deliver the following:

- Ensuring the Quality Center is available to COMS/NMMS/MMS/EMS for functional testing and for training COMS/NMMS/MMS/EMS on its use
- Developing Smoke and Regression suites from the test scripts delivered by COMS/NMMS/MMS/EMS
- All functional testing for CRR/EDW/MIS projects
- INT is responsible for integration testing
- INT is responsible for integration performance testing

The Nodal Program estimated cost of INT is \$16.98MM as follows:

INT	\$
Internal Resource Costs	\$4,691,272
External Resource Costs	11,349,461
Vendor Labor	-
Hardware, Software, misc.	936,650
Total	\$16,977,383

Table 11: INT Cost Summary

12. Market Participant Engagement & Readiness (MER)

The Market Participant Engagement & Readiness (MER) project involves the Market Participant approval of Nodal designs, preparation for and participation in testing and trials, and training and readiness of live Nodal operations. MER is meant to deliver the following:

- Training design (to accommodate several learning styles) development & delivery, and web-based training
- Communications
- TML replacement with new MIS web portal
- Market Participant Readiness Criteria, status reporting & Declarations
- Customer Care

The Nodal Program estimated cost of MER is \$21.54MM. as follows:

MER	\$
Internal Resource Costs	\$4,503,850
External Resource Costs	11,394,780
Vendor Labor	4,377,209
Hardware, Software, misc.	1,268,039
Total	\$21,543,878

Table 12: MER Cost Summary

13. ERCOT Readiness & Transition (IRT)

The ERCOT (internal) Readiness & Transition (IRT) project involves the preparation of the ERCOT organization and final verification of all parties’ readiness to operate under the Nodal Protocols in live operations. IRT is meant to deliver the following:

- Early Delivery System (EDS) strategy and plans
- ERCOT Readiness Criteria
- ERCOT Readiness & Transition Plans (by function)
- ERCOT readiness preparations
- EDS Market Trials
- ERCOT Readiness Declarations

The Nodal Program estimated cost of IRT is \$29.28MM as follows:

IRT	\$
Internal Resource Costs	\$13,133,224
External Resource Costs	16,146,615
Vendor Labor	-
Hardware, Software, misc.	-
Total	\$29,279,839

Table 13: IRT Cost Summary

Exhibit E

From: M. Petterson
To: Finance & Audit Committee
Date: December 5, 2006
Re: Accounting for the Independent Market Monitor

Objective

1. Summarize the accounting practices that will be used to capture and report the costs of supporting the Independent Market Monitor (IMM).

Practices

1. **Direct operational charges** – Costs incurred by ERCOT in direct support of IMM staff as they carry out their duties will be coded directly to one or more, uniquely identifiable “activity” codes within ERCOT’s accounting system. At present, it is expected that most direct operational costs will be represented by vendor invoices, from service providers such as Potomac Economics, and ERCOT staff time invested to support requests of IMM staff.
2. **Direct project charges** – Project costs incurred to create or modify hardware and software systems required by IMM staff or facilities costs to provide adequate office space or network connectivity will also be coded directly to one or more, uniquely identifiable “activity” codes within ERCOT’s accounting system.
3. **Indirect charges** – There will be no accounting transactions posted to allocate to IMM activities indirect or overhead charges, such as facilities costs, information technology assistance, and procurement and contracting support. Since the costs of supporting the IMM are recovered through the ERCOT System Administration Fee, the time, effort, and complication of formally preparing and posting cost allocation transactions is not essential; however, financial management reports will include an estimate of indirect charges to provide information as to the total cost of supporting the IMM. Indirect facilities costs and will be estimated based on actual historical costs to operate and maintain ERCOT facilities and the square footage of office space used by the IMM. Other overheads and support services including human resources, legal, payroll, and procurement and contracting support will be estimated based on average actual historical support costs relative to total ERCOT spending.
4. **Management reporting** – Commencing in January 2007, the monthly financial summary report prepared for management, members of the Finance and Audit Committee, and the ERCOT Board of Directors will include a summary of direct operational charges, direct project charges, and estimated indirect charges incurred by ERCOT to support the work of the IMM.

Exhibit F

From: M. Petterson
To: Finance & Audit Committee
Date: December 5, 2006
Re: Accounting for the Texas Reliability Entity

Objective

1. Summarize the accounting practices that will be used to capture and report the costs of supporting the Texas Reliability Entity (TRE).

Practices

1. **Direct operational charges** – Costs incurred by or for ERCOT employees assigned to TRE responsibilities will be coded to a newly created TRE department and one or more, uniquely identifiable “activity” codes within ERCOT’s accounting system. Other costs incurred in direct support of staff assigned to the TRE will be coded directly to the same department and “activity” codes within ERCOT’s accounting system.
2. **Direct project charges** – Project costs incurred to create or modify hardware and software systems required by TRE staff or facilities costs to provide adequate office space or network connectivity will also be coded directly to one or more, uniquely identifiable codes within ERCOT’s accounting system.
3. **Indirect charges** – Since the costs of the TRE are separately budgeted, are recovered through a discrete fee subject to scrutiny and approval by federal agencies, and are subject to audit by outside parties, the formal preparation and posting of cost allocation transactions is essential. Accounting transactions will be posted to allocate to the TRE indirect or overhead charges, such as facilities costs and support services including information technology assistance, human resources, legal, payroll, and procurement and contracting support. The facilities allocation will be based on actual historical costs to operate and maintain ERCOT facilities and the square footage of office space used by the TRE. The support services allocation will be based on average actual historical support costs relative to total ERCOT spending.
4. **Management reporting** – Commencing in January 2007, the monthly financial summary report prepared for management, members of the Finance and Audit Committee, and the ERCOT Board of Directors will include a summary of direct operational charges, direct project charges, and allocated indirect charges posted to the TRE.

Confirm financial qualifications of committee members

Committee discussion

<discussion>

<VOTE>

**THE ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
FINANCE & AUDIT COMMITTEE CHARTER**

Purpose

The Finance and Audit committee of the Board of Directors of ERCOT shall:

1. oversee the Company's budget process and adherence to budget, and providing recommendations to the Board of Directors for establishing levels of financing and in setting the Company's fees, including its administrative fee;
2. review the Company's credit policies and make recommendations to the Board of Directors re same;
3. ensure that the Company's financial statements are properly and effectively audited by qualified accountants who are independent;
4. assist the Board of Directors in fulfilling its oversight responsibility with respect to the Company's maintenance of an effective internal audit function;
5. perform such other duties and responsibilities enumerated in and consistent with this Charter.

Comment [ERCOT1]: ERCOT Staff proposes that the review of this section be deferred and made in conjunction with the pending Credit Workshop.

The Committee's function is one of oversight, recognizing that the Company's management is responsible for preparing the Company's financial statements, and the independent auditor is responsible for auditing those statements. In adopting this Charter, the Board of Directors acknowledges that the Committee members are not employees of the Company and are not providing any expert or special assurance as to the Company's financial statements or any professional certification as to the external auditor's work or auditing standards. Each member of the Committee shall be entitled to rely on the integrity of staff and external auditors to provide accurate, complete financial and other information to the Committee, absent actual knowledge to the contrary.

While the Committee has the responsibilities, duties and powers set forth in this Charter, it shall be the responsibility and duty of the Company's management and/or independent auditor, and not the responsibility or duty of the Committee, to plan or conduct audits, to make any determination that the Company's financial statements are complete, accurate and in accordance with generally accepted accounting principles and to assure compliance with laws, regulations and the Company's ethics policies. It is the responsibility of the Committee to conduct investigations and resolve disagreements regarding financial reporting, if any, between management and the independent auditor.

Deleted: or

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Comment [ERCOT2]: These edits would conform the Charter to the requirements of Section 301(m)(2) of the Sarbanes-Oxley Act of 2002.

Deleted: , and it shall not be

Deleted: or duty

Deleted: ,

Deleted: or to assure compliance with laws and regulations or the Company's ethics policies

The Committee shall provide assistance to the Board in fulfilling its oversight responsibility relating to the Company's financial statements and the financial reporting process, the systems of internal accounting and financial controls, the annual independent audit of the Company's financial statements and the legal compliance and ethics programs as established by management and the Board. In so doing, it is the responsibility of the Committee to maintain free and open communication between the Committee and the Company's independent auditors, internal accounting personnel and management.

Membership

The Finance and Audit Committee of the Board of Directors of ERCOT (the “Committee”) shall be comprised of at least five Board members, at least three of which are from market Segments and ~~two~~ or more of which must be an Independent Board members of ERCOT (the “Company”). Each Member must be able to read and understand fundamental financial statements, including the balance sheet, income statement and cash flow statement. At least one Member must have past employment experience in finance or accounting, requisite professional certification in accounting or any other comparable experience or background which ensures the individual’s financial sophistication, including a past or current position as a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities.

Comment [ERCOT3]: ERCOT believes that the Committee should consider changing this requirement given that the number of independent BOD members has increased from three to five.

Deleted: one

The board members shall decide from among themselves who shall participate in the Committee. The term shall be for one year.

The Chair of the Committee shall be selected through a majority vote of the Committee members. The Committee Chair shall not be the Chief Executive Officer of the Company and shall have accounting or related financial management expertise.

The Committee may request that any officers or employees of ERCOT, or any other person, whose advice and counsel are sought by the Committee, attend any meeting of the Committee to provide such pertinent information as the Committee requests.

Board members (other than Committee members) may attend and participate in Committee meetings but may not participate in Committee voting.

Non-Committee members may attend Committee meetings at the discretion of the Committee. The Committee may exclude any persons who are not Directors, the Segment Alternate or the Director’s Designated Representative from any meeting or portion of any Committee meeting that the Committee determines, in its discretion, needs to be held in closed session to discuss personnel issues, confidential legal matters, negotiations or other business of the Committee involving confidential information.

Qualifications

Each member of the Committee shall also meet any experience requirements as may be established from time to time by the Board of Directors. The Board of Directors shall endeavor to appoint at least one member to the committee who is a financial expert as such term may be defined from time to time by the Board of Directors, the accounting industry or other regulatory authorities.

Authority

In discharging its oversight role, the Committee is empowered to investigate any matter brought to its attention with full access to all books, records, facilities and personnel of the Company and the power to retain outside counsel or other experts for this purpose. All employees are directed

to cooperate as requested by the Committee or any of its Members for Committee purposes. The Committee may request any officer or employee of the Company, the Company's outside counsel or the Company's independent auditor to attend a meeting of the Committee or to meet with any Member or any consultants to the Committee.

The Company's senior internal auditor shall report directly to the Committee. For administrative purposes, the senior internal auditor shall report to the CEO. The Committee shall approve an Annual Audit Plan prepared by the senior internal auditor. The senior internal auditor shall (1) manage the execution of the Annual Audit Plan, (2) conduct investigations at the direction of the Chair and the Committee, and (3) make periodic reports to the Committee at regularly scheduled Committee meetings and as otherwise directed by the Chair and the Committee.

The Committee may appoint workgroups or task forces to investigate issues defined by the Committee. Members of such workgroups or task forces need not be Directors. Such workgroups or task forces shall have no authority to bind the Committee or the Company.

Structure

Three members of the Committee shall constitute a quorum. At any meeting at which a quorum exists, the act of a majority of the members present at a meeting shall be the act of the Committee.

The Chair, in consultation with the Chief Financial Officer, shall develop the agenda, the frequency, and length of meetings and shall have unlimited access to management and information for purposes of carrying out functions of the Committee. The Chair shall establish such other rules, as may from time to time be necessary and proper for the conduct of the Committee.

Duties and Responsibilities

The following shall be the prominent recurring duties and responsibilities of the Committee in carrying out its oversight functions. The duties and responsibilities are set forth below as a guide to the Committee with the understanding that the Committee may alter or supplement them as appropriate under the circumstances to the extent permitted by applicable law, and by the Company's Articles of Incorporation and Bylaws:

With respect to budget oversight and financing:

1. Annually, on a schedule to be established by the Board of Directors, the Committee shall review staff's proposed budget for the following year, including proposed staffing levels, proposed capital expenditures, and other proposed expenditures.
2. The Committee shall review the staff's estimate of revenues to support all proposed expenditures, including staff's recommendations for fee levels for the following year.
3. The Committee shall review the staff's recommendation of the amount and type of financing that may be needed to support the proposed budget, including the staff's proposed financial performance measures (e.g. ratios).

4. Following the Committee's review of the above items, the Committee shall recommend to the Board of Directors a staffing level, a proposed budget, proposed fees, and proposed financial performance measures for the following year.

With respect to the Company's credit policy:

1. The Committee shall review staff's recommendations concerning changes to the credit policy established to ensure creditworthiness of market participants.
2. Following the Committee's review of staff's recommendations, the Committee shall recommend to the Board of Directors any proposed changes to the previously approved credit policy.

Comment [ERCOT4]: ERCOT staff notes that this section should be updated. However, Staff proposes that the review and revision of this section be done in conjunction with the pending Credit Workshop.

With respect to the independent auditors:

1. Annually, the Committee shall recommend to the Board of Directors the selection and employment of the Company's independent auditor. The Committee shall fulfill the oversight responsibility of the Board of Directors with respect to the independent auditors' audit of the books and accounts of the Company and for the fiscal year for which it is appointed.
2. The Committee shall approve the provision of all auditing and non-audit services (in excess of \$5,000) by the independent auditor to the Company in advance of the provision of those services and shall also approve the fees for all non-audit services provided by the independent auditor.
3. Provision of non-audit services of less than or equal to \$5,000 by the independent auditor to the Company do not require pre-approval from the Committee, but shall be communicated in writing to the members of the Committee at the first meeting following the engagement for the non-audit services at issue.
4. In connection with the Committee's approval of non-audit services, the Committee shall consider whether the independent auditor's performance of any non-audit services is compatible with the external auditor's independence.
5. At least annually, the Committee shall obtain and review a report by the independent auditor describing:
 - a. the independent auditor's internal quality control procedures;
 - b. all relationships between the independent auditor and the Company, in order to assess the auditor's independence
6. The Committee shall also review any report by the independent auditor describing:
 - a. significant accounting policies and practices used by the Company;
 - b. alternative treatments of financial information as required to be discussed by the independent auditors with the Committee; and
 - c. any other material written communication between the independent auditors firm and the Company's management.
7. Establish the Company's hiring policies for employees who are former employees of the Company's independent auditors

With respect to the Company's financial statements:

1. The Committee shall discuss the annual audited financial statements with management and the independent auditor, including the Company's disclosures.

2. The Committee shall review disclosures made to the Committee by the Company's CEO and CFO about any significant deficiencies in the design or operation of the internal controls or material weaknesses therein and any fraud involving management or other employees who have a significant role in the Company's internal controls.
3. In connection with its review of the Company's financial statements, the Committee shall review and discuss with the independent auditor the matters relating to the conduct of the audit as they may be modified or supplemented, including, but not limited to, significant judgments, significant estimates, critical accounting policies, and unadjusted differences.
4. Review major changes to the Company's auditing and accounting principles and practices as suggested by the independent auditor, internal auditors or management.
5. Review with management and the independent auditor any correspondence with regulators or governmental agencies and any employee complaints or published reports that raise material issues regarding the Company's financial statements or accounting policies.
6. Review with management and the independent auditor the effect of regulatory and accounting initiatives as well as off-balance sheet structures on the Company's financial statements.
7. Review any and all press stories that relate to the Company's accounting and disclosure, require that management or the auditor explain any negative comments and determine whether these comments necessitate a change in the accounting structure of the Company.
8. Based on its review and discussions with management, the internal auditors and the independent auditor, the Committee shall provide a recommendation to the Board of Directors whether the Company's financial statements should be accepted.

With respect to periodic reviews and reports:

1. Periodically, the committee shall meet separately with senior management, internal auditors and the independent auditors.
2. The Committee shall review with the independent auditor any audit problems or difficulties and management's response to them.
3. The Committee shall review the Company's policies with respect to risk assessment and risk management.
4. The Committee shall communicate to the Board of Directors the matters discussed at each meeting of the Committee, including any issues with respect to the quality or integrity of the Company's financial statements, the performance and independence of the Company's independent auditors or the performance of the internal audit function.
5. The Committee shall discuss with the Board of Directors the matters discussed at each meeting of the Committee.
6. The Committee shall review and assess the adequacy of this Charter annually and recommend any proposed changes to the Board of Directors.

With respect to the other matters:

1. The Committee shall inquire of management and the independent auditors about significant risks or exposures to the Company and the ERCOT market and assess the steps management has taken to minimize such risks.
2. The Committee shall establish procedures for:

- a. The receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls, or auditing matters; and
 - b. The confidential, anonymous submission by the Company's employees of concerns regarding accounting or auditing matters.
3. The Committee shall review, based on the recommendations of the independent auditors and the CFO, the scope and plan of the work to be done by the Company's internal auditor, and the results of such work.
4. The Committee shall establish the Company's hiring policies for employees who are former employees of the Company's independent auditor's review the appointment and replacement of the senior internal auditing executive, the scope of the internal audit plan and the significant reports to management prepared by the internal auditing department and management's responses.
5. Meet at least biannually with the independent auditor, the chief financial officer and the senior internal auditing executive in separate executive sessions.

Meetings

The Committee shall meet at least once during each fiscal quarter, and as many additional times as the Committee shall deem necessary or appropriate.

Minutes

The Committee shall designate a secretary, who shall prepare or cause to be prepared the minutes of each meeting and file such minutes with the corporate records of the Company. The secretary shall send, or cause to be sent, copies of such minutes to each of the Members.

Evaluation

The Committee shall undertake an annual evaluation assessing its performance and, in light of this, consider changes in its membership, charter or procedures. The Committee shall report to the Board the results of its evaluation, including recommended charter, membership and other changes, if any.

Review PwC disclosure of auditor independence

Sean Barry/PwC

PricewaterhouseCoopers Independence

- We annually evaluate our relationships between our firm and its partners and staff and ERCOT to reassess our independence.
- No relationships exist that would impair our independence.
- Nor has our firm been engaged to perform non-assurance services that would potentially impair our independence.
- We confirm our independence of ERCOT.

Review PwC disclosure of auditor independence

Sean Barry/PwC

PricewaterhouseCoopers Quality Control

- Quality Control is an integral part of our firm's culture and service delivery.
- Our quality control processes include the following:
 - Year around process of training and evaluation of all staff
 - Review and supervision of all work performed on all assurance service projects – including redundant review procedures in all higher risk areas
 - Comprehensive firm-wide quality control assurance programs including independent engagement evaluations, AICPA peer reviews, communication processes related to emerging issues and policy compliance monitoring.
- The above is a very brief summary of our quality control processes. We would be pleased to provide a more complete description of our quality control procedures if desired.

<discussion>

- **Internal Control Environment**

- ERCOT has adopted the COSO framework as the foundation for the control environment
- ERCOT has formally documented controls for Corporate Governance and Financial Reporting-related processes (including Human Resources, Capital Projects and general IT controls).
- Controls for the business processes covered by SAS70 have also been documented, but are not currently included in the control repository

- **Management:**

- has established a strong tone at the top in support of internal controls
- has promoted stabilization of the control environment
- communicates expectations to employees and contractors and holds them accountable
- periodically conducts control self-assessments on formally documented controls
- approves policies and procedures and ensures access to approved documentation for all ERCOT staff and contractors
- conducts training to communicate processes and controls to employees and contractors
- reviews reports from internal audit, external auditors and staff to ensure the control environment is functioning as intended

- **Board of Directors and oversight authority:**
 - active monitoring of management activities
 - receive independent reports from qualified third parties
- **Current activities include:**
 - stabilizing the control environment through:
 - continued focus on a company culture of a balanced state of good financial management and operational reliability
 - providing additional education to employees to increase awareness of control requirements
 - ongoing monitoring and updating of controls based on business risk
- **While ERCOT is not required to comply with the provisions of the Sarbanes-Oxley act**
 - ERCOT's internal control environment has been designed to meet the requirements of Sarbanes-Oxley and to provide reasonable assurance to constituents and stakeholders that ERCOT is meeting its business objectives and complying with laws and regulations

<discussion>

**< The Quarterly Investment Results will be sent out with
the financial supplemental package on
Friday January 12, 2007 >**

Overview

- **Historical summary**
- **Highlights from approved interim Nodal Surcharge**
- **Nodal Program budget**
- **Funding assumptions**
- **Flat fee proposal**
- **Financing costs**
- **Revenue / debt ratio**
- **Recommendations**

Historical summary

- November 2005 – ERCOT notice to PUCT regarding use of \$5.1 million of unspent 2005 funds for initial nodal funding
- December 2005 – PUCT concurrence to fund initial nodal cost with 2005 funds
- May 2006 – Filed for interim Nodal Surcharge at PUCT
- August 2006 – PUCT approved interim Nodal Surcharge of \$0.0663 / MWh effective October 1, 2006
- November 2006 – BOD reviewed and concurred with ERCOT's further development of the Nodal Program based on a budget of \$226.0 million

Highlights from approved interim Nodal Surcharge

- **Based on estimated nodal costs of \$125.7 million**
- **Key factors considered when evaluating what blend of revenue (Nodal Surcharge) and debt to use to fund the Nodal Program:**
 - Impact on ERCOT's financial position. Higher debt levels can negatively impact ERCOT's balance sheet. Higher levels of revenue funding via the Nodal Surcharge strengthen ERCOT's balance sheet.
 - Overall cost of the project. The more debt incurred, the more interest cost must be paid and thus the higher the overall cost of the project.
 - Matching cost with benefit. Matching of the payment for the Nodal Program via the Nodal Surcharge with the benefit from the Nodal Program once it is in place.
 - Desire to minimize "spiking" in the Nodal Surcharge. The need or desire to have a consistent, predictable fee that will not fluctuate significantly.

Highlights from approved interim Nodal Surcharge (continued)

- Considered the following revenue / debt funding scenarios in light of the key factors previously identified:
 - Flat fee
 - 100% revenue funding during development
 - 50% revenue funding during development
 - 10% revenue funding during development
 - 100% debt funding during development
- The BOD approved a filing and PUCT approved an interim fee of \$0.0663 based on the “flat fee” scenario

- **Nodal Program Budget - revised estimate of Nodal costs**

- Initial ERCOT estimate for Interim Fee \$ 125.7 million
- Final Additional Estimated Costs \$ 100.3 million
- * Zonal/Nodal Dependency Projects \$ 37.0 million
 - Total Nodal program budget \$ 263.0 million

- Adjustments

- Less: Zonal/Nodal Dependency Projects \$ 37.0 million
- Less: Capitalized interest costs \$ 10.6 million
- Nodal Program costs to be financed \$ 215.4 million
 - Plus: Debt financing costs \$ 33.5 million
- Costs recoverable via Nodal Surcharge **\$ 248.9 million**

* These costs are assumed to be recovered via the System Administration Fee

Funding assumptions

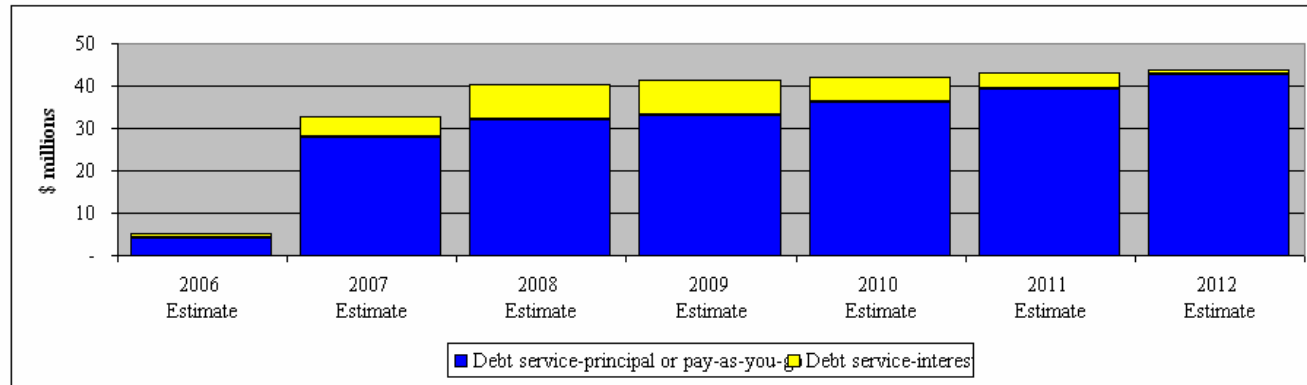
- Based on current development plans, yearly cash expenditures are estimated as follows:
 - 2006 \$ 44.8 million
 - 2007 \$ 113.9 million
 - 2008 \$ 55.1 million
 - 2009 \$ 1.6 million
- \$ 215.4 million
- With a “flat fee” assumption, interest costs will be incurred both
 - During the development period and
 - During the post-implementation financing period
- Interest is calculated using a historical average interest rate of 6%
- ERCOT continues to recover \$0.0663/MWh through May 2007
- The new surcharge is effective June 1, 2007
- MWh volume assumptions consistent with the approved 2007 budget

Recommendation for Board approval of updated nodal fee filing

Steve Byone

Texas Nodal Market Implementation Program Funding

Flat Fee Option



Line	(\$Millions)	2006 Estimate	2007 Estimate	2008 Estimate	2009 Estimate	2010 Estimate	2011 Estimate	2012 Estimate	Total or Average
1	Debt service-interest	1.1	5.0	8.3	8.0	6.0	3.7	1.3	33.5
2	Debt service-principal or pay-as-you	4.1	27.9	32.1	33.2	36.2	39.3	42.6	215.4
3	Total revenue requirement	5.2	32.9	40.4	41.2	42.2	43.0	43.9	248.9
4	GWh	78.5	312.7	318.6	325.2	332.9	340.1	346.7	
5	Nodal Surcharge	\$0.067	\$0.105	\$0.127	\$0.127	\$0.127	\$0.127	\$0.127	\$0.127
6		Beg Jun 1	0.127						
7	Incremental Debt Outstanding	40.7	126.7	149.7	118.1	81.9	42.6	0.0	
8									
9	(\$ / MWh)								
10	Debt service-interest	0.014	0.016	0.026	0.025	0.018	0.011	0.004	
11	Debt service-principal or pay as you	0.052	0.089	0.101	0.102	0.109	0.116	0.123	
12	Total revenue requirement	0.067	0.105	0.127	0.127	0.127	0.127	0.127	
13									
14									
15									
16									
		2006 Estimate	2007 Estimate	2008 Estimate	2009 Estimate	2010 Estimate	2011 Estimate	2012 Estimate	Total or Average
17	Estimated market redesign expendi	44.8	113.9	55.1	1.6	-	-	-	215.4
18	Revenue-funding for market redesi	4.1	27.9	32.1	33.2	36.2	39.3	42.6	215.4
19	Assumed incremental debt funding	40.7	86.0	23.0	(31.6)	(36.2)	(39.3)	(42.6)	-
20									
21	Cumulative incremental debt fundin	40.7	126.7	149.7	118.1	81.9	42.6	-	
22	Average outstanding incremental de	20.4	83.7	138.2	133.9	100.0	62.3	21.3	
23	Interest rate	5.50%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	
24	Assumed incremental interest expel	1.1	5.0	8.3	8.0	6.0	3.7	1.3	33.5
									33.4803
									248.8803

Finance costs

- Nodal *capitalized interest* cost is estimated at \$10.6 million
 - Accounting policy which applies to the development period
 - Estimate assumes each “project” under Nodal Program is placed “in service” when completed throughout 2007 and 2008
- Debt financing costs are expected to total approximately \$33.5 M (includes the \$10.6 million of capitalized interest)
 - Development period \$ 14.3
 - Estimated average useful life \$ 19.2
 - 6% rate – Sensitivity Analysis
 - A 25 basis point change in the interest rate assumption has a \$0.001 impact on the Nodal Surcharge (e.g. if the interest rate changed from 6% to 5.75% or 6.25%, the Nodal Surcharge would change from \$0.127 to \$0.126 or \$0.128 respectively)

Revenue / debt ratio (under a flat fee scenario)

	Estimate @ <u>Interim filing</u>	*Estimate @ <u>Jan 2007</u>
Expected recovery		
During development period (thru 2008)	38%	32%
Over estimated average useful life (2009-2012)	62%	68%

*Note: The contribution during the development period is less than estimated for the interim Nodal Surcharge filing given the higher overall estimated Nodal Program cost relative to the interim fee of \$0.0663

ERCOT recommendation

- ERCOT staff believes that the “flat fee” methodology adopted for the interim Nodal Surcharge continues to be appropriate for recovery of Nodal Program costs
- Staff requests the BOD approve a fee filing at the PUCT based upon the BOD approved Nodal Program budget
 - To be funded through a Nodal Surcharge of \$0.127 / MWh
 - To be effective until all Nodal Program costs are fully recovered
(currently estimated to be by the end of 2012)
- ERCOT staff will monitor progress against the Nodal Program budget and may request changes to the Nodal Surcharge if estimated costs are expected to be materially different
 - Staff will request PUC approval of an expedited hearing process to make those changes if they become necessary
- **F&A recommendation (vote) in conjunction with the BOD
Agenda Item 12. Approval of Final Nodal Fee Filing (Vote)**

- **Potential dates**

- February 19th (in conjunction with the February 20th BOD meeting / February 21st BOD retreat)
- March 19th / 21st (in conjunction with the March 20th BOD meeting – attendance concerns due to Spring Break?)
- April 16th / 18th (in conjunction with the April 17th BOD meeting)
- Other dates not connected to BOD meeting dates

- **Considerations**

- Ability to have broad attendance
- Desire to have prior to retreat as prep for retreat
- Delay in future changes relating to credit policy

ERCOT Market Credit Status

	as of 11/30/2006				as of 12/31/2006					
	# of QSEs*	Estimated Aggregate Liability (\$)	% of EAL	Total Unsec. Credit Limit / Security Posted		# of QSEs*	Estimated Aggregate Liability (\$)	% of EAL	Total Unsec. Credit Limit / Security Posted	
Exposure in the ERCOT Market (owed to ERCOT)										
<u>QSEs that meet ERCOT Creditworthiness Standards</u>										
Ratings over BBB-	6	23,342,060	10%	67,000,000	U	4	24,561,600	8%	58,000,000	U
<u>QSEs that do not meet ERCOT Creditworthiness Standards</u>										
Ratings below BBB- or not rated										
Cash & Letters of Credit	47	99,003,647	41%	237,232,604	S	46	113,307,090	39%	223,795,550	S
Guarantee Agreements	14	121,943,135	50%	384,367,000	S	16	154,977,295	53%	611,367,000	S
Total Exposure	67	244,288,842	100%			66	292,845,985	100%		
Other QSEs in the ERCOT Market (ERCOT owes)										
<u>QSEs that meet ERCOT Creditworthiness Standards</u>										
Ratings over BBB-	11	(3,902,285)	-15%	77,026,345	U	14	(5,552,041)	-15%	101,026,345	U
<u>QSEs that do not meet ERCOT Creditworthiness Standards</u>										
Ratings below BBB- or not rated										
Cash & Letters of Credit	38	(9,795,686)	-36%	21,180,386	S	41	(12,482,504)	-34%	22,118,635	S
Guarantee Agreements	10	(13,083,286)	-49%	116,900,000	S	9	(18,944,381)	-51%	101,900,000	S
Total	59	(26,781,257)	-100%			64	(36,978,926)	-100%		
Total	126					130				

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

ALERT RELIABILITY COUNCIL OF TEXAS, INC.
RISK MANAGEMENT EVENT PROFILE MATRIX (as of December 1st, 2006)

Strategic Position	Operational Excellence	Market Facilitation	Grid Reliability	Reporting	Compliance
<p> Strategy Development</p> <p><i>Objective setting adequately incorporates informed stakeholder input, market realities and management expertise</i></p> <p>ERCOT is in the process of incorporating Nodal planning into its short and long-range strategic plans. Turnover in mid and senior management has resulted in uncertainty regarding ERCOT's strategic vision</p>	<p> Performance Monitoring</p> <p><i>Clearly defined performance metrics linked to mission and goals; actively monitored, status communicated and corrective action taken</i></p> <p>Management has rolled out a revision of the Executive Dashboard and have instituted regular Quarterly Business Reviews to discuss key business activities.</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>IT components supporting Customer Choice are currently not at the desired levels to meet SLA's. Successful replacement of SeeBeyond Application with TIBCO will have a major impact on Customer Choice operations.</p>	<p> Grid Operations</p> <p><i>Information required to operate the grid is efficiently gathered and appropriate tools are prudently configured to efficiently operate the system</i></p> <p>Current tools utilized by the System Operator (including the State Estimator and the accuracy/availability of SCADA data) and the lack of an Operator Training Simulator exposes ERCOT to greater reliability risks.</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>Board of Director's review of management activities on an ongoing basis assists in ensuring proper review and disclosure practices.</p>	<p> Legal & Legislative</p> <p><i>Operations are conducted in compliance with all laws and regulations and current and proposed legislation is understood and communicated</i></p> <p>Increased efforts have been made to inform members of the legislature about ERCOT and the performance of its functions.</p>
<p> Mission and Goals</p> <p><i>Corporate objectives and performance standards are understood and followed</i></p> <p>Current management initiatives related to goal setting and the development of Key Performance Indicators (KPI's) have increased awareness of organizational goals and related to high-level corporate objectives and priorities for individual divisions, departments, and employees.</p>	<p> Business Practices</p> <p><i>Business planning, processes and management standards are effective and efficient</i></p> <p>Disaster recovery plans, record retention procedures, and safety practices are currently below desired expectations. Additional development activities required to implement and test these procedures.</p>	<p> Nodal Implementation</p> <p><i>Nodal Implementation is progressing in a timely fashion on budget and schedule within a defined scope.</i></p> <p>Significant risks exist with respect to adequate staffing, scope management and deliverable tracking. Project team burn-out, including non-Nodal staff in Procurement, Legal and HR, is a high-risk item. Recent management changes also pose significant risks but interim leadership have stabilized this risk. Funding will remain a risk until approval of the increased surcharge is obtained.</p>	<p> Planning</p> <p><i>Long-range planning methods enable efficient responses to necessary system changes to maintain reliability standards</i></p> <p>Lack of timely and accurate information necessary to build reasonable system models and forecasts, an insufficient ability to conduct long-range (6-10 years out) planning, and demands on planning resulting from a transition to Nodal. Long range planning issues must accurately address increased load growth forecasts as well as review adequacy of current spinning reserve requirements.</p>	<p> Disclosure </p> <p><i>Reporting and other disclosures to intended parties is timely, accurate and effective</i></p> <p>A Disclosure Committee has been institutionalized to discuss and report issues related to external reporting and compliance.</p>	<p> Internal Control Compliance</p> <p><i>Internal Control Compliance, processes and management standards are effective and efficient</i></p> <p>Audit findings are actively monitored by management as well as Internal Audit. Additional training activities are required to ensure all staff members are aware of ongoing internal control compliance processes and procedures.</p>
<p> Reputation</p> <p><i>Positive perceptions by stakeholders typically lead to less cost and greater flexibility resulting in enhanced enterprise value</i></p> <p>High visibility of initial Nodal implementation impact ERCOT reputation as could increased scrutiny on ERCOT activities occurring during the bi-annual state legislative session.</p>	<p> Human Resources</p> <p><i>Organization design, managerial and technical skills, bench strength and reward systems are aligned with corporate goals</i></p> <p>While ERCOT has reduced the number of open positions, a large number of openings continues to be a focus of attention. The current compensation structure is outdated and is in the process of being revised. Turnover in key areas such as system operations presents additional concern.</p>	<p> Counterparty Credit</p> <p><i>Bankruptcies and other capital deficiencies increase the cost for market participants and potentially impact Grid reliability through participant failure</i></p> <p>Processes for removing defaulting participants from the market increases the potential for credit losses. A medium to large market participant default could materially impact the ERCOT market, grid reliability, and ERCOT's reputation. Recent PRR's related to shortening the timeframe related to drops to POLR have reduced exposure by an estimated 37%.</p>	<p> Bulk System Resources</p> <p><i>Market Participants have constructed and made available adequate bulk electric grid resources</i></p> <p>Uncertainty surrounding generation projects, installed and operational capacity, and the high dependency on natural gas in Texas' generation fleet may impact reliability. The risk exists for a hotter than normal summer or cooler winter to increase load demand to a level that reduces reserve margins below acceptable minimum levels.</p>	<p> Communication</p> <p><i>Internal and external communications are timely and effective</i></p> <p>Since the grid operation events of the spring, ERCOT has implemented several corrective measures. Meetings have been conducted with most of the members of the Texas Legislature who have jurisdictional responsibility over ERCOT, a crisis management project for communications has been completed and ERCOT is in the process of restructuring its legal and communications departments.</p>	<p> Industry Standards</p> <p><i>Business practices provide stakeholders with required assurances of quality</i></p> <p>Failure to adhere to ERCOT adopted industry standards, and/or industry standards with which ERCOT is expected to adopt, may increase risks. Changes in NERC / FERC standards and policies require ERCOT action to ensure ongoing compliance. SAS 70 Audit Issues and qualifications remain to be addressed with remediation activities underway to address findings in 1 area of 18 tested.</p>
<p> Fiscal Management</p> <p><i>ISO design requires competent, prudent and cost effective provision of services</i></p> <p>Current fiscal practices are effective in managing and controlling costs. Issues surrounding Nodal implementation budgeting and staffing allocation have not been fully addressed.</p>	<p> Technology Infrastructure</p> <p><i>Information systems and data are effectively managed and are reliable</i></p> <p>System development, testing, implementation and data management environments are not at desired levels. The technology road map for Zonal is not clearly defined. However, the road map for Nodal is defined. Periodic systems disruptions (Retail / EMMS) and management turnover have stabilized.</p>	<p> Administration, Settlement & Billing</p> <p><i>Market rules are fairly applied to all participants and accounting is timely and accurately reflects electricity production and delivery</i></p> <p>ERCOT's settlement/dispute processes has a significant number of ADR's related to the RPRS policy debate outstanding, however these are being addressed in a timely fashion.</p>	<p> Operational Responsibility</p> <p><i>Market participants conduct their operations in a manner which facilitates consistent grid reliability</i></p> <p>Response of generators to past grid operation events requires greater scrutiny in analyzing market participant operations. Enhanced enforcement of NERC standards will exist through the ERO / RE structure.</p>	<p> Adequacy and Integrity</p> <p><i>Robust processes exist to support management assertions embodied within financial reports</i></p> <p>Financial and Operations management information has been redesigned to enable management to effectively monitor and manage the business.</p>	<p> Regulatory Filings</p> <p><i>Evidence, testimony and other supporting materials are compelling and successful</i></p> <p>Filings are completed timely and accurately.</p>

Legend: Elevated Risk Level

Reduced Risk Level

(New Risk Categories / Descriptions Indicated in Green)

Rationale for Category Risk Assessment Changes

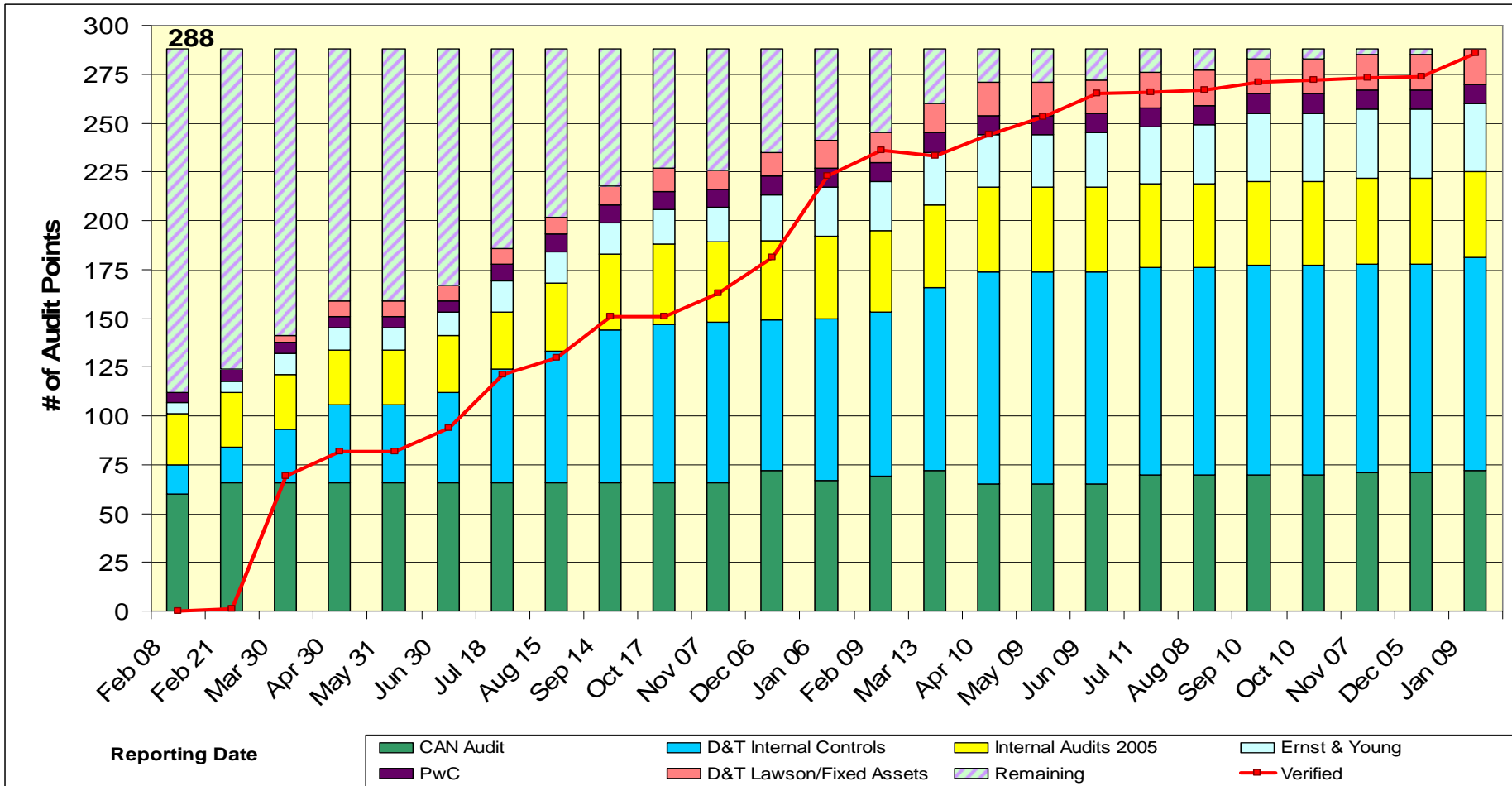
Review Practices
Disclosure

Upgrade - Green-Yellow to Green
Upgrade - Green-Yellow to Green

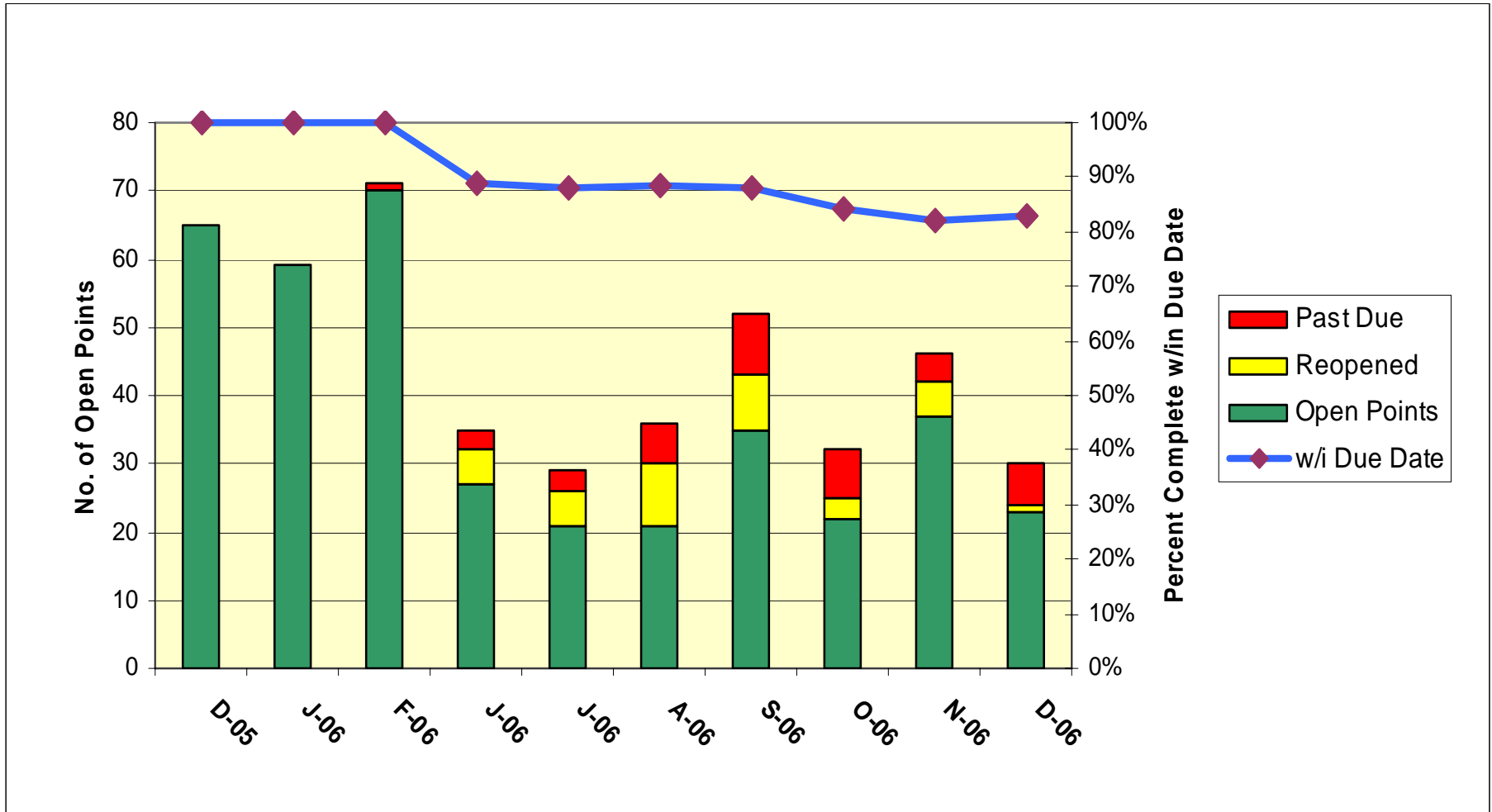
Recent compliance efforts and audit reports indicate sufficient controls are in place regarding review practices
A full review of disclosure activities has not discovered any issues and sufficient controls are in place to monitor activities

Completion Status by Audit 2004-05 Audit Points

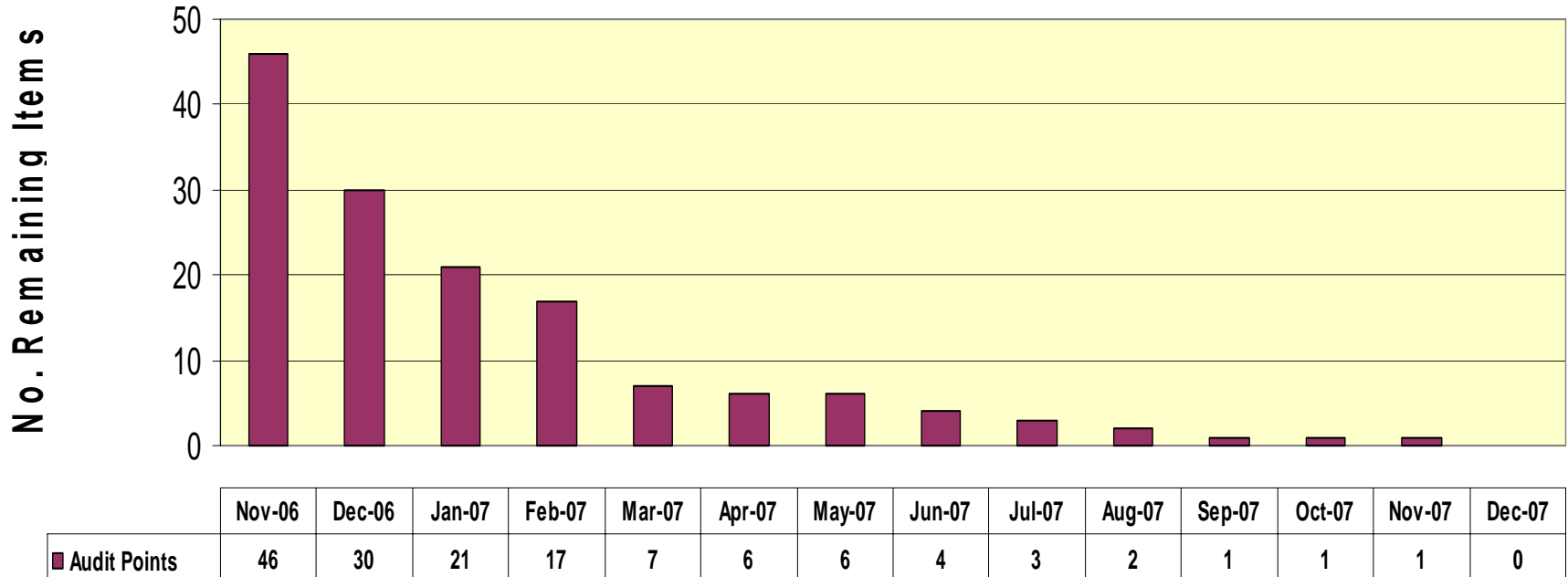
2 to verify



Status of Open Audit Points - 2006



Projected Audit Point Progress



Audits Completed (last 3 months)

Internal Audits

- Cash & Investments
- Software License Mgmt
- Selected Nodal Employee & Contractor Expenses
- Fraud Prevention Program (Q1-Q2 Results)
- Fixed Assets
- Cyber Security (follow-up)
- System Operations
(Compliance w/assistance from Internal Audit)
- Ethics Compliance

• External Audits

- Texas Nodal Program Review (IBM-managed by IAD)
- 2006 SAS70 (PwC)
- Internal Controls (D&T)

Open Audits

Internal Audits

- Corporate Communications
- Procurement & Contract Administration
- Business Continuity Plan
- Budget Process
- SCADA Applications
- Fraud Prevention (ongoing)
- MAPS Follow-up (ongoing)

External Audits

- 2006 Financial Audit (PwC)
- Texas Nodal Program Controls Progress Reporting Review (IBM – Managed by IAD)

Planned Audits (next 3 months)

Internal Audits

- PMO
- Nodal PMO
- Nodal Timetracking
- Nodal Ethics Compliance
- Registration/Qualification of Market Participants
- Nodal Recruiting
- Accounts Payable
- Nodal Signing Authority/Delegation of Authority
- MAPS Follow-up (ongoing)

External Audits

- NOTE: Internal Audits performed by IAD, unless otherwise noted.

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

External Assessments

- 1 security assessment completed in October
- 3 security assessments completed in December

**Open Consultation/
Analysis Reviews**

External Assessments

- 1 security assessment with combined consulting service currently underway to complete by the end of February

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

External Assessments

- 1 security assessment planned

<The PMO Committee Brief will be sent out with the financial supplemental package on Friday January 12, 2007>

Future Agenda Items – February 2007

- **Standing Internal Audit updates (executive session)**
- **Lessons learned from 2006 SAS 70**
- **Review of 2006 financial results & vote on use of surplus funds**
- **Review 2006 project performance**
- **Update on 2007 large projects**
- **Committee briefs**

Quarter 1

- Elect officers and confirm financial qualifications
- Review Finance Audit Committee charter
- Approve the Guidelines for Engagements of External auditors for Other Services (pre-approval policy)
- Required written communication and discussion of auditor independence
- Review scope of annual financial audit
- Report by CWG Chair on ERCOT credit policy
- Vote on CWG Chair

Quarter 2

- Report results of annual independent audit to the Board
- Report of external auditor pre-approval status/limits
- Review the procedures for handling reporting violations
- Review conflict of interest and ethics policies
- Review results of annual audit (including required communications)
- Review and approve ERCOT Annual Report
- Review operating plan and budget assumptions

Quarter 3

- Appoint the independent auditors for upcoming year
- Approval of independent auditor fees for upcoming year
- 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

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