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

7620 Metro Center Drive (Room 206) – Austin, Texas 78744 August 17, 2010

Pursuant to notice duly given, the Finance & Audit Committee ("F&A" and/or "Committee") of Electric Reliability Council of Texas, Inc. ("ERCOT") convened on the above-referenced date. Committee Chairman Clifton Karnei confirmed that a quorum was present and called the meeting to order at approximately **7:35 a.m**. The Committee immediately went into Executive Session, where it remained until it recessed and reconvened in General Session at **9:05 a.m**.

## **General Session Attendance**

### Committee members:

| Bermudez, Jorge                  | Unaffiliated Board Member                   | Unaffiliated Board<br>Member | Present        |
|----------------------------------|---|------------------------------|----------------|
| Crowder, Calvin                  | American Electric Power Service Corporation | Investor Owned Utility       | Present        |
| Dreyfus, Mark                    | Austin Energy                               | Municipal                    | Present        |
| Espinosa, Miguel<br>(Vice Chair) | Unaffiliated Board Member                   | Unaffiliated Board<br>Member | Not<br>Present |
| Fehrenbach, Nick                 | City of Dallas                              | Commercial Consumers         | Present        |
| Karnei, Clifton<br>(Chair)       | Brazos Electric Power<br>Cooperative        | Cooperative                  | Present        |
| Zlotnik, Marcie                  | StarTex Power                               | Independent REP              | Present        |

Other Board Members and Segment Alternates:

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

#### **ERCOT Staff and Guests:**

| Anderson, Ken    | Public Utility Commission of Texas (Commissioner) |  |
|------------------|---|--|
| Bevill, Rob      | GMEC  |  |
| Brandt, Adrianne | Austin Energy                                     |  |
| Brenton, Jim     | ERCOT - Principal, Cyber Standard Development     |  |
| Brewer, Chris    | City of Eastland                                  |  |
| Cleary, Mike     | ERCOT – Chief Operating Officer                   |  |
| Day, Betty       | ERCOT - Director, Commercial Operations           |  |
| DiPastena, Phil  | ERCOT – Enterprise Risk Manager                   |  |
| Doggett, Trip    | ERCOT – Chief Executive Officer                   |  |
| Forfia, David    | ERCOT – Director, IT Infrastructure               |  |
| Gonzales, Daniel | City of Eastland                                  |  |
| Hancock, Misti   | ERCOT – Manager, Budget & Financial Analysis      |  |
| Helton, Bob      | International Power America Services              |  |
| Jones, Brad      | Luminant  |  |
|                  |   |  |

| Jones, Randy         | Calpine   |
|----------------------|---|
| Kolodziej, Eddie     | Customized Energy Solutions                                 |
| Lester, Suzanne      | ERCOT – Executive Assistant, Finance                        |
| Magness, Bill        | ERCOT – Interim Vice President and General Counsel          |
| Manning, Chuck       | ERCOT – Vice President and Chief Compliance Officer         |
| Manz, Laura          | ERCOT – Senior Systems Analyst                              |
| Morehead, Juliana    | ERCOT – Associate Corporate Counsel                         |
| Morgan, Richard      | ERCOT – Vice President and Chief Information Officer        |
| Moseley, Cheryl      | ERCOT – Manager, ICMP                                       |
| Nikazm, Tamila       | Austin Energy   |
| Oehler, Melissa      | Public Utility Commission of Texas                          |
| Petterson, Mike      | ERCOT – Controller  |
| Prochazka, Scott     | CenterPoint Houston Electric, LLP                           |
| Saathoff, Kent       | ERCOT – Vice President, Grid Operations and System Planning |
| Seely, Chad          | ERCOT – Senior Corporate Counsel                            |
| Seymour, Cesar       | GDF Suez  |
| Smitherman, Barry T. | Public Utility Commission of Texas (Chairman)               |
| Stark, Ruth          | Public Utility Commission of Texas                          |
| Starnes, Bill        | RUC   |
| Stauffer, Tarra      | ERCOT – Paralegal   |
| Swanson, Leslie      | ERCOT – Treasury Manager (contractor)                       |
| Wullenjohn, Bill     | ERCOT - Director, Internal Audit                            |
| Yager, Cheryl        | Treasurer   |

Chairman Karnei announced that a quorum was present and that he held a proxy for Miguel Espinosa.

## <u>Approval of General Session Minutes – July 20, 2010 (Agenda Item 4)</u>

Mr. Karnei asked for a motion to approve the July 20, 2010 General Session F&A Committee meeting minutes ("Minutes").

# Calvin Crowder moved to approve the Minutes. Jorge Bermudez seconded the motion. The motion passed unanimously with no abstentions.

Barry T. Smitherman, Chairman of the Public Utility Commission of Texas called to order the meeting of the Public Utility Commission of Texas ("PUCT") as noticed, and welcomed PUCT Commissioner Ken Anderson.

# Review Assumptions for Preliminary Schedules for the 2011 Annual Operating Budget (Agenda Item 5)

Mike Petterson reviewed the assumptions for preliminary schedules for the 2011 Annual Operating Budget ("Budget"). Mr. Petterson covered key cost drivers (operating costs and project costs); cost management initiatives; staffing approaches; and systems operations costs (hardware/software systems, outside services and facilities). He noted that Betty Day would be explaining how ERCOT was building the staffing budget for 2011, and future years from the bottom-up based on the capability model. Further, Mr. Petterson stated that Richard Morgan

would speak about system operating costs, and how transition into a Nodal market would increase costs.

Mr. Crowder inquired as to how the increased cost estimation (i.e., \$0.15 - \$0.20 per MWh), as shown on page 11 of the Committee's materials, was derived. Mr. Petterson explained that a large share of said cost was associated with hardware and software support, and maintenance on ERCOT systems, which was required to operate a Nodal market. He also noted that the estimate covered incremental outside services costs associated with the rapid response, maintenance, and support of new systems and the purchase of proprietary software developed specifically for Nodal markets. Mr. Doggett informed Mr. Crowder, that slides 13 and 14 would further enumerate some of the components that created the estimate, and noted that ERCOT would be presenting a more detailed overview at the September 2010 meeting. Mr. Crowder suggested that offsetting reductions be further detailed in the 2011 Budget preparation process. Mr. Petterson responded that slide 12 of the meeting materials reflected some cost-saving initiatives in the organization, albeit not directly tied to the transition from a Zonal to a Nodal market, but which indicated a savings between \$2M and \$3M, and noted that Richard Morgan would address key cost drivers related to operating and outside service costs. Mr. Doggett noted an error on page 14 of the Committee materials. Specifically, he explained that the bottom line total reflected as \$11M - \$15M should read "in progress" because a staffing number was yet to be developed. Mr. Cleary reemphasized that ERCOT was not ready to identify a bottom line estimate, but wanted to identify what was driving costs of the internal organization. Mr. Crowder stated that this summary was good, and indicated that his assumption would be that the Committee would see some offsetting cost reductions as ERCOT moved away from Zonal. He noted that it would be helpful to know figures for such reductions. Mr. Morgan responded that he would speak to Mr. Crowder's request later in the meeting.

Mr. Petterson then spoke of the key cost drivers related to projects, and noted that in the Board meeting later that day, Richard Morgan and David Forfia would further discuss the necessity of replacing hardware and software that had reached "end of life", and costs associated therewith. Mr. Karnei indicated that the gross number was provided in the materials, rather than the impact to the fee, which would be the 40% revenue piece. Mr. Petterson agreed, and explained that the total stabilization was defined as a project effort and the numbers associated thereto reflected a six-month horizon. Furthermore, he noted that covered in the range of costs was an estimate of defects that could arise over the next ten months, as well as a cost estimate for incremental ERCOT staff time to cover the necessity for market diagnostics related to dispute resolutions.

Marcie Zlotnik asked whether the estimate included items in the Parking Deck. Mr. Petterson noted that Parking Deck items were not included at that time, but were captured under "Other." He explained that ERCOT was developing cost estimates for such items, and expected them to be evaluated, prioritized, and placed in a release schedule consistent with a software release program. Mr. Cleary described the Parking Deck as something that should be viewed as enhancements to the market through Nodal stabilization.

Chairman Smitherman noted that every penny in the administrative fee raised about \$3.2M in revenue. He then noted his concern that if by assuming that ERCOT would use the same number of KWhs in the calculation, and a 40% calculation on the hardware and software systems was used, a low-range number of an incremental \$46M and a high-range number of \$62M, would cause a minimum addition of \$0.13 - \$0.17 to the administrative fee, with four items undefined (i.e., in progress). Mr. Karnei mentioned that page 11 of the materials included the four items in progress, and that the potential increase range included a rough estimate for

such unknowns. Mr. Doggett responded that ERCOT would like to discuss with the Board and the Commission, the appropriateness of some of ERCOT's stabilization costs paid for by the administrative fee versus those paid for out of Nodal, and noted that the range could change.

Betty Day then highlighted the proposed staffing approach using Market Reform's identified capabilities. She used Retail Market Operations (Capability 2) as an example for showing how recommendations were broken down according to ERCOT business functions. Ms. Day explained that Market Reform recommendations for staffing were broken down into subcapabilities, some of which did not require a head count, and that sub-capabilities requiring head count further identified ERCOT responsibilities via protocols, market rules, PUCT rules, and the like. Mr. Doggett identified the need for ERCOT to expand Market Reform's approach by working with the PUCT to identify its needs, as well as ERCOT's, some of which conflicted with Market Reform's recommendations. Mr. Clearly summarized ERCOT's approach by stating that ERCOT would be using a zero-based budget approach, which would be formulated by the principles defined by the proposed 2011 Budget (i.e., what activities should and should not be funded), and emphasized ERCOT's intent to keep the Board and PUCT informed and familiar with the staffing approach.

Mr. Crowder asked whether: (a) ERCOT was taking an enhanced role in market development; (b) ERCOT had found a way to reduce externally driven work; and (c) a cost estimate of assumptions driven by market reform was available. Mr. Doggett agreed to make sure that ERCOT's assumptions were captured, and noted his uncertainty as to whether the delta would be captured, but agreed to highlight such data where possible, to which Mr. Crowder noted concurrence. Ms. Day then explained that individual sub-capabilities identified assumptions, and that ERCOT was trying to capture increases and decreases.

Mr. Morgan then discussed the major cost drivers associated with IT and Facilities. He noted that hardware and software maintenance for 2010 totaled \$14.1M (\$8.89M to be paid out of the Base Operations budget, and \$5.22M to be paid out of the Nodal Administrative Fee). He further enumerated the infrastructure costs that would be shared with Zonal operations and those which were applicable only to Nodal. Additional costs such as warranty renewals, license fees, and maintenance fees, also contributed to hardware and software costs, Mr. Morgan said. He then noted that ERCOT's equipment retirements were minimal, and once ERCOT retired certain equipment, it would no longer be required to pay maintenance fees on such equipment. Mr. Morgan anticipated hardware and software maintenance for 2011 to increase by \$1,28M. bringing the projected total for 2011 to \$15.38M (\$8.691M to be paid out of Base Operations, and \$6.69M to be paid out of the Nodal Administrative Fee). He then reviewed figures for outside services vendors, and noted that the numbers for 2010 were relatively small (i.e., \$40,000) due to the set of systems ERCOT operated under Zonal, which were mostly selfsupported by ERCOT. However, he asserted that costs were anticipated to rise significantly by about \$3.6M. Mr. Morgan stressed that this cost was for dedicated support and readiness by "the best of the breed," as well as limited access to code for both Nodal go-live and into the future, but excluded vendor outside service fees.

Mr. Morgan went into further discussion concerning facility costs and the major budget categories included therewith, which would increase costs relative to operating the Bastrop facility. He noted that FTE costs were not included in the schedule. Mr. Morgan provided brief overviews of the three primary capabilities/services:

1. Network and Telecom Services – Increase of \$120,000 for communication lines between the Bastrop, Taylor, and Austin facilities

- 2. Facilities Management Increase of \$370,000 for power, water, maintenance of generators, and janitorial services to the Taylor data center and an increase of \$5.3M to the Bastrop data center for the same, with an additional \$400,000 in contract services
- 3. Physical Security Increase of \$399,000 for the Bastrop facility for a total that was directly related to new facilities operations of \$1.8M

Mr. Karnei requested additional detailed review of all said assumptions at the September 2010 F&A Committee meeting. Mr. Bermudez and Mr. Cleary then discussed the key cost drivers surrounding ERCOT's operation and how they played a part in: (a) where ERCOT invested its money, (b) what ERCOT staff was doing, (c) how ERCOT staff was doing it, and (d) the potential impacts of ceasing certain responsibilities. Mr. Bermudez asked whether at some point, based on the 2011 Budget, the costs and benefits to ERCOT's investments would be identified, in addition to that of the cost of running ERCOT going forward. Mr. Cleary answered in the affirmative. Mr. Bermudez indicated that he would like to see a holistic view of ERCOT. Mr. Karnei stated that while the Committee was reviewing details at present, it would like to review the whole picture at some point in the future.

### Nodal Credit Risk Profile and Status (Agenda Item 6)

Per request by Chairman Karnei and Vice Chairman Espinosa, Tamila Nikazm, Vice Chair of the Credit Working Group ("CWG"), provided an update on readiness for Nodal go-live. Mr. Karnei commented that because the request to have CWG provide a recommendation on Nodal credit arose from a discussion outside the Committee, Committee members should feel free to raise any issue he/she had therewith. Further, he stated, because the Committee was being asked to determine whether it agreed with CWG's recommendation, unless a member voiced an opinion one way or the other, silence would be considered assent.

Ms. Nikazm categorized Nodal readiness into two groups: (1) whether credit calculations, based on market trial data, were prepared accurately as defined in the Nodal protocol; and (2) whether the credit risk in the Nodal market was sufficiently addressed. Concerning core credit calculations, with few exceptions, Ms. Nikazm noted that the calculations were in place and performing, and testing was ongoing. Concerning credit constraints for the day-ahead market and e-factors, she noted that testing was ongoing, and other credit constraints were still being validated. Concerning Congestion Revenue Rights ("CRR") credit, Ms. Nikazm stated that CWG had been receiving concerns from market participants involving factors involved in the calculations, but noted that ERCOT was working to clarify some of these questions, and testing was ongoing. Concerning credit risk in the Nodal market, based on data received in the market trial, Ms. Nikazm identified CWG's biggest concern as the data in market trials (i.e., substantial amounts of energy being purchased in the real-time market; substantially fewer energy trades that were seen in Zonal (with a number of unconfirmed energy trades by the trade counterparties); significantly higher congestion in Nodal market trials than what existed in the Zonal market; and extremely high prices in the Nodal trial). Another concern of the CWG was the presence of extreme market results in market trials, which Ms. Nikazm noted, could cause very severe financial consequences if such events were actually to occur. Because market participants were not seeing any normalization in market trial results, and were experiencing unexpected credit requirements resulting from the data, Ms. Nikazm stated that the evaluation of reasonableness of exposure was difficult. In conclusion, she noted that the data flowing into the credit calculation made it difficult for CWG to conclude that such exposures were reasonable.

Chairman Karnei asked whether the high prices were expected to flatten out as market trials continued. Ms. Nikazm responded that such was the expectation, but CWG would like the opportunity to test in an environment where CWG could ensure that the data falling into the calculations was providing for a reasonable amount of collateral to help mitigate the credit risk. CWG and the Market Credit Working Group met generally once or twice per week, she noted.

Commissioner Anderson asked whether: (a) the results were based on the similar problems that had been discussed the prior day, and (b) tests were producing outcomes that were unsatisfactory for testing purposes. Mr. Cleary confirmed that the data concerns were similar to those discussed, and that although the testing was not closely simulating what was expected to occur upon Nodal go-live, he did not believe the outcomes were unsatisfactory for testing purposes. He explained that functionality could be tested, and that "the quality to the solution is the issue." Continued testing and review of outcomes could provide an understanding of where the issues originated, and why they originated at all, he said. Because the tests were just implemented in August 2010, Mr. Cleary indicated that he would like to ensure that the details of the issues and their influences were understood.

Ms. Nikazm suggested that participation be mandatory at a certain level, and a more robust post-monitoring process be implemented to allow for transparency purposes. Mr. Cleary responded that ERCOT did not have a mechanism in place to require mandatory participation. Ms. Nikazm agreed with Mr. Cleary's point and stated that the CWG would continue to review for problem areas.

Cheryl Yager noted that ERCOT had provided an excel spreadsheet to Market Participants that modeled the Nodal credit calculations, which allowed the Market Participants to estimate their exposure in a pro forma manner.

Mr. Karnei requested that CWG provide another update on its review of Nodal credit risk at the September 2010 meeting, and that CWG and ERCOT continue to work together to monitor credit risks.

Cheryl Yager then provided the Committee with a brief overview of the CMM status. She reported that Credit Monitoring and Management (CMM) went live in market trials in May 2010, and e-factors in August 2010, and that testing of both were ongoing. Ms. Yager informed the Committee that ERCOT had a metric that would test the validity of credit calculations on a sampling basis, which was expected to be completed by the end of August 2010. Concerning process readiness, Ms. Yager noted that ERCOT focused primarily on market facing operating procedures and had some internal procedures in the process of being finalized. She commented that process readiness was on target. Ms. Yager further asserted that in regards to people readiness, ERCOT internal training was substantially complete, and Market Participant training had been completed. As requested at the July 2010 Board meeting, Ms. Yager noted that ERCOT was reviewing the PJM report and comparing ERCOT to other markets; a discussion concerning each would be on the agenda for the F&A Committee meeting in September 2010. She also informed the Committee that ERCOT was considering the assistance of a third party for review of Nodal credit readiness.

Mr. Crowder asked whether the information contained in pages 45-47 of the Committee materials was the criteria by which the Committee would certify credit for readiness. Ms. Yager confirmed that it was, noting that the format was consistent with that used for other components coming to the Board for approval for Nodal go-live.

Ms. Yager and Chairman Karnei then agreed to postpone discussion concerning risk factors compared to Zonal and volume escalation to the September 2010 Committee meeting.

Ms. Zlotnik asked Ms. Yager to talk briefly about the magnitude of risks in market trials data, referencing the discussion at the July 2010 Board meeting. Ms. Yager reminded the Committee that in July 2010, ERCOT prepared a slide to help the Committee understand and compare: (a) credit risk in the Zonal market; (b) an indicative steady-state Nodal market; and (c) what market participants were seeing in the market trials data. She went on to explain that ERCOT expected to see an increase in exposure and collateral of two to four times the activity in steady-state Nodal depending on a Counter-Party's ("CP") activity. However, Ms. Yager noted that ERCOT did not expect market trial results to be indicative of normal steady-state Nodal activity. She noted that the exposure seen in market trials was not expected to reflect Nodal steady-state. Ms. Zlotnik clarified that exposure using market trial data that appeared to be 45 times higher than average Zonal levels should neither be considered realistic, nor expected in a Nodal steady-state market.

## Discussion of Market Credit Risk Standard Audit Requirement for 2010 (Agenda Item 7)

Ms. Yager reminded the Committee that ERCOT was slated for an audit of the Market Credit Risk Standard, but that such was not required to be done on an annual basis. The Committee agreed to defer the audit to 2011, following Nodal go-live. Mr. Wullenjohn commented that said audit would be included in the 2011 Internal Audit Plan.

# <u>Follow-up to Commissioner Anderson's Question regarding Investment Risk and Diversification (Agenda Item 8)</u>

Per Commissioner Anderson's inquiries at the July 2010 meeting, Ms. Yager provided a brief overview of ERCOT's investment risk and diversification. She explained that ERCOT invested in very conservative funds, and reviewed the underlying investments on a monthly basis. Ms. Yager also noted that the Securities and Exchange Commission strengthened their requirements on money market funds, and that ERCOT's money market funds were backed by treasuries. Further, she said, the collateral, almost all of which had very short tenure, was held by third parties. Ms. Yager informed the Committee that ERCOT confirmed with the third parties that they trued up the collateral on a daily basis, collateralized it at 102%, and maintained it with third-party custodians. Chairman Karnei asked why the vendors collateralized at 102%, to which Ms. Yager responded that the figure was used to ensure value when there was price volatility on treasuries and to ensure that adequate collateral was available for each fund.

Ms. Yager offered to provide the Committee with a consolidation report on a quarterly basis. Commissioner Anderson noted that Ms. Yager's review and report was very helpful for understanding the real risk.

## Review of First Priority Security Interest Agreement (Agenda Item 9)

Ms. Yager directed the Committee to page 64 of its materials, and noted that the purpose for the First Priority Security Interest Agreement ("Agreement") was tied to Nodal Protocol Section 16.11.4.1 (Determination of Total Potential Exposure for a Counter-Party). Chad Seely then provided the Committee with an overview of the status of the Agreement. He noted that the Agreement had been out for stakeholder comment for a few months, and expected to receive a final round of comments in the near future. Mr. Seely also informed the Committee that the comments had not been very contentious, and that ERCOT had accepted most of them.

Mr. Seely stated that the purpose of the Agreement was to give ERCOT a first priority security interest, although he opined that very few market participants would likely be able to do so. He discussed the term "collateral" as it related to any and all accounts receivables generated under and/or in connection with a Counter-Party Agreement and all current and future revenues as described and defined in Nodal Protocols. For clarification purposes, Chairman Karnei stated that market participants would not be required to execute the Agreement, but if they did, because of the ability to net current and future market activities, it could reduce their overall collateral obligations. Alternatively, if market participants did not execute the Agreement, they would likely be required to post additional collateral. From a retail perspective, Ms. Zlotnik noted that it would be very difficult for entities in the retail sector to sign the Agreement.

Mr. Seely concluded by noting that ERCOT would seek Committee approval and recommendation to the Board of the Agreement at the September 2010 Committee meeting.

## **Committee Briefs (Agenda Item 10)**

No Committee Briefs were provided.

### Future Agenda Items (Agenda Item 11)

The following items were identified as future agenda items:

- 1. Standing Internal Audit agenda items
- 2. Review assumptions and preliminary schedules for the 2011 annual operating budget
- 3. Approval of the First Priority Security document
- 4. Annual review of Committee Charter and structure
- 5. Review results of and vote on acceptance of 2009 401(k) audit report
- 6. Standing Nodal Credit Status
- 7. Review of investment strategy
- 8. Committee briefs
- 9. Future Agenda Items

### Other Business (Agenda Item 11)

None.

#### Adjournment

Mr. Karnei adjourned the meeting at approximately 9:51 a.m.

Juliana/Worehead

Associate Corporate Counsel