

**DRAFT MINUTES OF THE BOARD OF DIRECTORS MEETING  
OF ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**

Electric Reliability Council of Texas, Inc.  
2705 West Lake Drive, Room 252/253  
Taylor, Texas 76574  
April 15, 2008 at 10:00 a.m.

Pursuant to notice duly given, the meeting of the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) convened on the above-referenced date.

**Meeting Attendance:**

**Board Members:**

Director	Affiliation	Segment
Armentrout, Mark		Unaffiliated; Board Chairman
Pappas, Laurie	OPUC	Consumers/Residential & Small Commercial
Cox, Brad	Tenaska Power Services	Independent Power Marketers
Dalton, Andrew	Valero Energy Corp.	Consumers/Industrial
Espinosa, Miguel		Unaffiliated; Proxy for Michehl Gent
Fehrenbach, Nick	City of Dallas	Consumers/Commercial
Helton, Bob	IPA	Independent Generators
Jenkins, Charles	Oncor Electric Delivery	Investor-Owned Utilities
Newton, Jan		Unaffiliated
Thomas, Robert	Green Mountain Energy	Independent Retail Electric Providers
Wilkerson, Dan	Bryan Texas Utilities	Municipally-Owned Utilities

**Staff and Guests:**

Adib, Parviz	APX
Barry, Victor	Texas Regional Entity
Beck, Mike	ERCOT Contractor
Belk, Brady	Lower Colorado River Authority (LCRA)
Bell, Wendell	TPPA
Brandy, Adrienne	Austin Energy
Brewster, Chris	City of Eastland
Clay, Ryan	Texas Regional Entity
Cochran, Seth	Sempra Trading
Cooper, Tammy	TIEC
Day, Betty	ERCOT
Drost, Wendell	AREVA
Firestone, Joel	Direct Energy
Fox, Kip	AEP
Goff, Eric	Constellation

Greer, Clayton	J. Aron
Grimm, Larry	Texas Regional Entity
Grisham, Kevin	Reliant Energy
Headwick, Bridget	Public Utility Commission of Texas (PUCT)
Hobbs, Kristi	ERCOT
Jones, Liz	Oncor
King, Kelso	King Energy
Koebrich, Lisa	KPMG
Kolodrej, Eddie	Customized Energy Solutions
Lopez, Nieves	ERCOT
Miller, Melissa	Cielo Wind Power
Morris, Sandy	LCRA
Orr, John	Constellation
Owens, Frank	TMPA
Philips, Marji	PSEG Texas
Roark, Dottie	ERCOT
Ross, Richard	AEPSC
Rydeen, Twyla	---
Spilman, Matt	Strategic Energy
Stephenson, Randa	Luminant
Troutman, Jennifer	Direct Energy
Vincent, Susan	Texas Regional Entity
Walker, DeAnn	CenterPoint Energy
Wittmeyer, Bob	DME
Wullenjohn, William	ERCOT
Yager, Cheryl	ERCOT
Yoho, Lisa	Citigroup Energy
Zlotnik, Marcie	Startex Power

## **1. Call to Order/Announcements**

Mark Armentrout, Chairman, called the meeting to order at approximately 10:25 a.m. and determined a quorum was present.

## **2. Consent Agenda**

Mark Dreyfus, Technical Advisory Committee (TAC) Chair, requested removal of Protocol Revision Request (PRR) 743 from the Consent Agenda until the TAC addresses the handling of TCR (Transmission Congestion Right) refunds if nodal “go-live” does not take place on December 1, 2008. Chairman Armentrout consented to that course of action. Chairman Armentrout also removed PRR752 from the Consent Agenda for further discussion later in the meeting.

The following items were handled in the consent agenda:

- PRR747
- Nodal Protocol Revision Requests (NPRRs) - NPRR092, NPRR100 and NPRR101

**Mr. Wilkerson moved to approve the items on the Consent Agenda. Mr. Espinosa seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

### **3. Approval of Minutes**

**Mr. Espinosa moved to approve the minutes from the March Board of Directors meeting. Mr. Helton seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

### **4. Chief Executive Officer (CEO) Report**

No CEO report took place this month.

### **5. Operating Reports**

Chairman Armentrout invited comments or questions regarding the Financial Summary, Market Operations Report, Grid Operations Report and Information Technology (IT) Report.

Mr. Thomas asked when implementation of SCR745 might take place. Mr. Hinsley, ERCOT's Chief Information Officer, stated that no firm date has been set.

Chairman Armentrout asked Mr. Hinsley to provide information regarding a recent, significant service outage. Mr. Hinsley stated that system changes relating to the implementation of SCR745 went well in the test environment but, when the changes were put into the production environment, they caused a fairly significant outage due to a hardware failure. Because of that failure, the servers could not communicate with the storage environment. Mr. Hinsley stated that the Directors had recently approved a project to upgrade the hardware.

Kent Saathoff, ERCOT's V.P. of System Operations, made one clarification regarding information on slide ten of his report.

Ms. Pappas stated that she wants to ensure that, when looking at the February Emergency Electric Curtailment Plan (EECP) event, ERCOT staff do not lose sight of the fact that wind forecasting was not the only issue and that the availability of conventional generation should also be addressed. Mr. Saathoff stated that the Reliability and Operations Subcommittee (ROS) is looking into that issue.

Mr. Hinsley reminded everyone that the market operations report covers February, while the I.T. report covers March.

### **6. CREZ Transmission Options Report to PUCT**

Dan Woodfin, ERCOT's Director of System Planning, provided slides regarding the transmission options ERCOT reported to the PUCT earlier this month. Mike Grable, ERCOT General Counsel, stated that the PUCT is expected to make a decision on CREZ transmission in June 2008.

Mr. Dalton stated that he had asked for details regarding alleged cost savings and other matters related to wind generation. Mr. Woodfin then reiterated some of the assumptions used in generating the information ERCOT provided to the PUCT earlier this month. Mr. Dalton asked if ERCOT had a "preferred" plan. Mr. Woodfin stated that, in its filing with the PUCT, ERCOT designated certain plans as "recommended" by ERCOT for each scenario.

## **7. Nodal Update**

Jerry Sullivan, ERCOT's Executive Director of the Texas Nodal Market Implementation Program (TNMIP), updated the Directors on the status of the TNMIP. He stated that, essentially, the status has not changed since last month's report. The quality of products received from vendors is generally good and he still anticipates a December 1, 2008 "go-live" date. The 168-hour test is scheduled to take place in approximately eighteen weeks. Basically, the Program status is as follows:

- Scope – Green
- Quality – Amber
- Schedule – Amber
- Cost – Red (pending PUCT approval of the new Nodal surcharge request)

Mr. Sullivan raised a concern about Market Participant readiness and reported that certain Qualified Scheduling Entities (QSEs) reported themselves not ready for Nodal implementation. Mr. Helton asked if training would be offered in other parts of the country. Patrick Coon, ERCOT's Manager of Wholesale Client Services, responded affirmatively.

Ms. Newton asked when readiness would become a critical issue with respect to the "go-live" date. Mr. Sullivan stated that, for QSE representing Resources, the issue would become critical in approximately one month. For QSEs with no Resources, the critical date would be late summer. Chairman Armentrout asked that Mr. Hinsley and Mr. Sullivan set up a conference call to talk about testing metrics.

Mr. Sullivan stated that ERCOT is the first Independent System Operator (ISO) to use a Common Interface Module (CIM) and it is extremely complicated. He believes the CIM creates the greatest risk to the December 1<sup>st</sup> "go-live" date.

Mr. Sullivan then described the "go-live" plan which stakeholders will review shortly and which ERCOT staff will bring to the Directors in June. Chairman Armentrout asked when the zonal system would be "turned off." Daryl Cote, EDS Project Manager, responded that a deadline is set forth in Section 21 of the Protocols. Additionally, because of settlements, resettlements and disputes, the zonal settlement system will remain available for months after Nodal "go-live." The

Protocols state that grid operations can be returned to zonal for thirty days after the implementation of the Nodal system. Mr. Cote pointed out that, both zonal and nodal systems will run and QSEs representing Resources will submit transactions to both nodal and zonal systems for the first seven days after nodal “go-live.” After the initial seven days, ERCOT and Market Participants must be able to revert to their zonal systems, if necessary.

Ms. Pappas asked if ERCOT has a contingency plan in case reliability during the 168-test is adversely affected. Mr. Cote stated that ERCOT will not use the nodal system’s Load Frequency Control (LFC) to control the grid during the 168-hour test. However, immediately after the test -- if it goes well -- ERCOT will take control of the grid using the Nodal systems.

Mr. Sullivan then reported that the TNMIP remains on budget (with respect to the revised budget). Finally, he reported that IBM is undertaking a readiness study to ensure that ERCOT and Market Participants are ready for the December 1<sup>st</sup> “go-live” date.

Ms. Newton asked if ERCOT would be asking for more money for additional Nodal-related projects. Mr. Sullivan stated that the money for the new projects would come out of the already-approved budget.

Chairman Armentrout clarified that the budget is in “red” status because the PUCT has not yet approved the new Nodal surcharge. Chairman Armentrout then asked Mr. Sullivan to ensure that all issues get escalated to the Directors in a timely manner. He also stated that any “fixes” that are implemented must be double-checked to avoid a ripple effect through other systems.

## **8. 2009 Budget, Proposed Fees and Financial Plan**

Steve Byone, ERCOT’s Chief Financial Officer, made a presentation regarding the proposed 2009 budget, fees and financial plan. He began by indicating that ERCOT management intends to request an approximate fifteen cent increase in the System Administration Fee (SAF) for 2009. He will present the budget to the Directors for approval next month.

Mr. Byone recapped the budget process to date, which has included open, public meetings. He also stated that the budget does not contain certain items, like advanced metering, that might arise between now and 2009.

Mr. Byone noted that, for several years, ERCOT’s SAF has declined or remained flat. The implementation of the Nodal market has been funded through debt and the Nodal surcharge for the last several years. That funding will cease in the near future and, in large part, creates the need for an increase of \$0.1527 in the SAF. Approximately 8.6 cents of the increase is for staffing, system support and hardware support related to new Nodal market. Additionally, 2.56 cents in the proposed budget relates to moving out of the Met Center facility due to space constraints related to the Nodal market.

An additional 2.34 cents relates to retiring debt and approximately six-tenths of one cent relates to compliance with new Federal Reliability Standards.

ERCOT staff recommends funding the new control/data center at 60% debt through the year 2019 because of the anticipated useful life of the building. Taking this approach lowers the fee increase in the early years. The Finance & Audit (F&A) Committee endorsed this approach.

Mr. Byone then presented data on the impact of the ERCOT budget on the “average” household in Texas. Currently, that cost is approximately \$7.04 per year. For 2009, the impact would be \$9.13 per year and, when Nodal costs roll off the budget in 2013, that amount would drop to approximately \$7.36 per month.

Finally, Mr. Byone stated that some Market Participants have remarked that ERCOT’s capital budget for 2009 is too small in light of the fact that projects may be needed to fine-tune the Nodal market implementation. Mr. Byone stated that, if ERCOT finds itself cash-strapped in 2009 for critical projects, management would come back to the Directors for additional funding.

Mark Dreyfus, Technical Advisory Committee (TAC) Chair, stated TAC endorsed the Project Priority List (PPL) for 2009, but expressed concerns about the possibility of more money being needed for Nodal-related issues. Mr. Byone stated that the current budget proposal includes \$27.2 million for capital projects not related to the Met Center move. Of that amount, \$8.3 million is earmarked for already-identified Nodal-related projects and \$3.5 million is planned for unidentified Nodal-related projects.

Mr. Giuliani raised a question about the allocation of the ERCOT SAF. Mr. Grable stated that the PUCT has opened a project to consider that issue. ERCOT staff is reviewing time-tracking data in an attempt to allocate time/effort expended by ERCOT employees and present that information in that project.

Clayton Greer of J. Aron asked how that information would be presented. Mr. Grable stated that a presentation would probably be made in May at ERCOT’s Met Center office. Mr. Grable also stated that ERCOT staff would probably circulate information to Market Participants ahead of that presentation so they could provide comments or input.

Mr. Byone then stated that the proposed 2009 budget assumes a 1.7% growth rate in electric consumption and includes 736 ERCOT employees and that a detailed description of the need for each of those employees will be filed with ERCOT’s fee filing package.

Mr. Espinosa, Vice-Chair of the F&A Committee, stated that the F&A Committee has reviewed the proposed budget three times and remains in favor of the proposed budget.

## **Lunch**

The meeting adjourned for lunch at 11:50 a.m.

## **10. Technical Advisory Committee Report**

Chairman Armentrout invited Mark Dreyfus, TAC Chair, to report on recent TAC activities.

Mr. Dreyfus began by pointing out that the following items were handled in the Consent Agenda:

- PRR747; and
- NPRR092, NPRR100 and NPRR101.

### **Protocol Revision Requests (PRRs)**

Mr. Dreyfus then stated that TAC considered the following PRRs and NPRRs:

**PRR758 - Clarification of Language Related to Generation Netting for ERCOT Polled Settlement Meters.** This PRR makes clear that the intent of Section 10.3.2.3, Generation Netting for ERCOT Polled Settlement Meters, is that metering may net generation and the Load associated with such generation, including construction and maintenance Load for the purposes of settlement. ERCOT posted NPRR758 on March 14, 2008. On March 20, 2008, PRS voted to grant Urgent status to PRR758, with one opposing vote (Consumer Market Segment) and one abstention (Municipal Market Segment). Also on March 20, 2008, PRS voted to recommend approval of PRR758 as revised by Luminant comments and PRS, with one abstention (Investor Owned Utility (IOU) Market Segment). On April 4, 2008, TAC voted to recommend approval of PRR758, with one abstention (IOU Market Segment).

**Mr. Helton moved to approve PRR758. Mr. Dalton seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

**PRR752 – Update to Posting Requirements of Standard QSE-Specific Market Reports.** This PRR incorporates requirements from in PUCT Substantive Rule 25.505, *Resource Adequacy in the Electric Reliability Council of Texas Power Region*. Specifically, this PRR removes language from grey boxes, revises the disclosure dates from thirty to sixty days after the Operating Day and adds language requiring disclosure of specified information if the Market Clearing Price for Energy (MCPE) or the Market Clearing Price for Capacity (MCPC) exceeds a certain level. ERCOT posted this PRR and its Impact Analysis (IA) on December 17, 2007. On January 17, 2008, PRS unanimously voted to recommend approval of this PRR as submitted. On February 21, 2008, PRS reviewed the IA and unanimously voted to forward this PRR to TAC. On March 6, 2008, TAC unanimously voted to recommend approval of PRR752 as recommended by PRS.

Mr. Fehrenbach asked whether the PRR should be revised to require that ERCOT post the name of the bidder for the marginal megawatt instead of the last megawatt procured. Mr. Dreyfus stated that the language in the PRR uses the exact language from the PUCT Substantive Rule. Mr. Fehrenbach concurred that the proposed language tracks the PUCT rule, but he believes the PUCT actually wanted ERCOT to post the name of the company whose bid set the clearing price.

Mr. Helton stated that the PRR was designed to bring the Protocols into conformance with the PUCT rule and not necessarily go further. He opined that, if there is an issue with the PUCT rule,

the proper forum is the PUCT, not the Protocols. Chairman Armentrout stated that PUCT rules go through a rigorous review and the Protocols should reflect what the rule states.

Mr. Dreyfus also reviewed some proposed language changes in Section 12.4.4.2.3.3(4) and a missing “and” from section 12.4.4.2.3.3(5).

**Mr. Helton moved to approve PRR752 with the revisions discussed in this meeting. Mr. Cox seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

#### **Nodal Protocol Revision Requests (NPRRs)**

**NPRR099 - RMR Incentive Factor Payment.** This NPRR removes language that would allow the Incentive Factor payment in Reliability Must Run (RMR) Agreements to be reduced if, in ERCOT’s determination, the reduction in capacity materially affects reliability. ERCOT posted NPRR099 on January 8, 2008. On February 21, 2008, PRS voted to recommend approval of NPRR099 as submitted, with two opposing votes (Investor Owned Utility (IOU) and Independent Power Marketer (IPM) Market Segments) and one abstention (Cooperative Market Segment). On March 20, 2008, PRS unanimously voted to forward the PRS Recommendation Report and the IA to TAC. On April 4, 2008, TAC voted to recommend approval of NPRR099 as revised by TAC, with one opposing vote and one abstention (both from the IOU Market Segment).

DeAnn Walker of CenterPoint Energy provided the reason for her company’s negative vote on this NPRR. Mr. Fehrenbach provided some background on this NPRR at TPTF and stated that he is in favor of the NPRR. **Ms. Pappas moved to approve NPRR099. Mr. Helton seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

**NPRR103 – Settlement of Power Imported via DC Ties and Block Load Transfer Under a Declared Emergency Condition.** This NPRR adds Settlement formulas to pay a Qualified Scheduling Entity (QSE) for emergency energy imported over DC Ties and for energy supplied to Block Load Transfer (BLT) Load moved from the ERCOT Region to a non-ERCOT area during a declared Emergency Condition. ERCOT posted this NPRR on February 13, 2008. On February 21, 2008, PRS unanimously voted to recommend approval of NPRR103 as revised by ERCOT comments and PRS. On March 20, 2008, PRS unanimously voted to accept ERCOT comments dated March 19, 2008 and revise the Recommendation Report to NPRR103. Also on March 20, 2008, PRS unanimously voted to forward the PRS Recommendation Report and the IA to TAC. On April 4, 2008, TAC voted to recommend approval of NPRR103 as recommended by PRS, with one opposing vote (IPM Market Segment).

**Mr. Wilkerson moved to approve NPRR103. Mr. Fehrenbach seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

Additional items for consideration:



Mr. Dreyfus provided notice that TAC approved OGRR205, *Modify Responsive Reserve Service Obligation*, which clarifies that the minimum ERCOT Responsive Reserve Obligation is 2,300 MWs.

Mr. Dreyfus then stated that the TAC and its subcommittees reviewed the PPL for 2009 and each subcommittee approved the PPL with some reservations relating to the general uncertainty about post-Nodal costs and the scope of the PUCT's advanced metering project. As a result, the TAC approved the following motion:

To endorse the Project Priority List for 2009 for inclusion in the 2009 budget recognizing there are great uncertainties to be faced by this organization in 2009.

### **Managing Protocol Content During Texas Nodal Market Implementation**

Mr. Dreyfus raised a concern regarding the potential failure to implement provisions of the Nodal Protocols, as understood by the stakeholders and approved by the Board and PUCT. This led to a need for a process to govern management of Protocol content as the Nodal "go-live" date approaches and immediately thereafter. Consequently, the TAC developed a process which begins with the Transition Plan Task Force (TPTF) assessing the scope of an issue that arises. The TPTF would then assign the issue to one of three categories:

- (1) **Needed for "Go-Live"** (meaning functionality must be available on the Texas Nodal Market Implementation Date)
- (2) **Approved Post "Go-Live"** (meaning the functionality is needed for the nodal market but can be deferred past the Texas Nodal Market Implementation Date); or
- (3) **Deferred Projects** (meaning the functionality is not needed on the Texas Nodal Market Implementation Date or not included in Approved Post "Go-Live" scope and requirements).

After assignment of the issue, ERCOT subject matter experts and Program Management Office personnel would review the recommendation and report to the TPTF on cost and schedule impact. TPTF would then notify the TAC of its assignment of an issue and the feedback from ERCOT staff. TAC would then follow its established processes regarding how to handle the issue.

Mr. Dreyfus then discussed the "grey box" policy, which provides that NPRRs with funded projects will appear in grey boxes with implementation dates once approved by the Board. The grey boxes will be managed through the NPRR process. NPRRs with projects without approved funding will be added to the PPL.

Mr. Dalton asked whether it is possible that a part of the design that was originally in the Nodal Protocols might still end up deferred. Mr. Dreyfus replied affirmatively.

Chairman Armentrout applauded the TAC's efforts to deal with the realities of nearing Nodal "go-live" and stated that the Finance Department will have to review how to fund various proposed projects.

Mr. Byone indicated that additional conversations may need to occur with PUCT representatives to determine appropriate funding mechanisms. Chairman Armentrout indicated that the second category in the template should be changed to read "Nodal Approved Go-Live" instead of "Approved Post Go-Live." **Chairman Armentrout moved for approval of the TAC proposal. Mr. Helton seconded the motion.**

Mr. Dalton asked whether the \$319 million budget contemplates this content management approach. Mr. Byone indicated that his interpretation is that the \$319 million budget is for items needed for "go-live" and not for costs after "go-live." Mr. Hinsley indicated that his understanding is that the budget includes items for "go-live" and everything currently in the Nodal Protocols. However, discussions will need to include items that may or may not be considered as already in the Nodal Protocols.

There being no further discussion, Chairman Armentrout called the question. **The motion passed with one negative vote (Mr. Dalton) and one abstention (Mr. Fehrenbach).**

#### **11. Finance & Audit (F&A) Committee Report**

Mr. Espinosa, F&A Committee Vice-Chair, stated that the committee met this morning and received a quality assessment of the internal audit department.

Mr. Byone then commented on the changes in the Board template regarding the annual audit of ERCOT's financial records. Sean Berry with PricewaterhouseCoopers (PwC) commented that there are two or three matters needed for due diligence before release of the final report, but he does not expect changes from the current version to the final version of the financial statements. Mr. Byone pointed out red-lining in the Resolution previously presented and Mr. Espinosa stated that the F&A Committee recommended accepting the revised language. Chairman Armentrout asked about the word "aspect" in the red-lined language.

**Mr. Espinosa moved to approve the revised Resolution attached hereto as Exhibit G. Chairman Armentrout recommended adding "as approved by the Chair and Vice-Chair of the F&A Committee" after the word "aspect." Mr. Espinosa accepted the friendly amendment to his motion. Chairman Armentrout seconded the motion, as amended. The motion passed by unanimous voice vote with no abstentions.**

#### **12. H.R. & Governance Committee**

Jan Newton, the committee Chair, stated that the committee met this morning and agreed to leave the new Director training in its current form. The committee also reviewed the Board procedures and discussed some proposed revisions.

### **13. Other Business**

No other business was raised.

### **14. Future Agenda Items**

Chairman Armentrout invited anyone to raise any items they wish to be addressed at future meetings. The following matters were discussed:

- Remove 2009 Budget Process Update (Item #1)
- Remove Follow up on CREZ Report Filings by ERCOT (Item #2)
- Remove IBM Update on Nodal (Item #7)

Mr. Giuliani encouraged Market Participants to turn in their satisfaction surveys.

### **15. Executive Session**

Chairman Armentrout adjourned the meeting to Executive Session at approximately 2:05 p.m.

### **16. Voting on Executive Session Items**

Chairman Armentrout re-opened the open portion of the meeting when the Executive Session ended at approximately 2:40 p.m.

**Ms. Newton moved to approve the H.R. & Governance committee's proposal for CEO compensation as set forth in the Resolution attached as Exhibit A to the Executive Session minutes. Mr. Espinosa seconded the motion. The motion passed with ten votes in favor and two votes opposed (Ms. Pappas and Mr. Fehrenbach) and no abstentions.**

### **Adjournment**

Chairman Armentrout adjourned the meeting at approximately 2:45 p.m.

Board materials and presentations from the meeting are available on ERCOT's website at <http://www.ercot.com/committees/board/index.html>.

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Michael G. Grable  
General Counsel & Assistant Corporate Secretary

**Exhibit A**

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**BOARD OF DIRECTORS RESOLUTION**

**WHEREAS**, the Electric Reliability Council of Texas, Inc. (“ERCOT”) Board of Directors (“Board”) deems it desirable and in ERCOT’s best interest to approve the following Protocol Revision Requests (PRRs) and Nodal Protocol Revision Requests (NPRRs):

- PRR747, *IDR Requirement Change*,
- NPRR092, *Remove Voltage Schedules Requirement*,
- NPRR100, *PCRR Release Mechanism*, and
- NPRR101, *Modify Time Requirements for Entry of Equipment in the Outage Scheduler*.

**THEREFORE be it RESOLVED**, that the Board approves the above-referenced Protocol Revision Requests and Nodal Protocol Revision Requests.

**CORPORATE SECRETARY’S CERTIFICATE**

I, Michael G. Grable, Corporate Secretary of Electric Reliability Council of Texas, Inc., a Texas non-profit corporation, do hereby certify that, at its April 15, 2008 meeting, the ERCOT Board of Directors passed a motion approving the above Resolution by a unanimous voice vote with no abstentions.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

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Michael G. Grable  
Corporate Secretary

**Exhibit B**

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**BOARD OF DIRECTORS RESOLUTION**

**WHEREAS**, the Electric Reliability Council of Texas, Inc. (“ERCOT”) Board of Directors (“Board”) deems it desirable and in ERCOT’s best interest to approve the following Protocol Revision Request (PRR):

- PRR758 - *Clarification of Language Related to Generation Netting for ERCOT Polled Settlement Meters.*

**THEREFORE be it RESOLVED**, that the Board approves the above-referenced Protocol Revision Request.

**CORPORATE SECRETARY’S CERTIFICATE**

I, Michael G. Grable, Corporate Secretary of Electric Reliability Council of Texas, Inc., a Texas non-profit corporation, do hereby certify that, at its April 15, 2008 meeting, the ERCOT Board of Directors passed a motion approving the above Resolution by a unanimous voice vote with no abstentions.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

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Michael G. Grable  
Corporate Secretary

**Exhibit C**

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**BOARD OF DIRECTORS RESOLUTION**

**WHEREAS**, the Electric Reliability Council of Texas, Inc. (“ERCOT”) Board of Directors (“Board”) deems it desirable and in ERCOT’s best interest to approve the following Protocol Revision Request (PRR):

- PRR752 - *Update to Posting Requirements of Standard QSE-Specific Market Reports* as revised and set forth in Attachment A attached hereto.

**THEREFORE be it RESOLVED**, that the Board approves the above-referenced Protocol Revision Request.

**CORPORATE SECRETARY’S CERTIFICATE**

I, Michael G. Grable, Corporate Secretary of Electric Reliability Council of Texas, Inc., a Texas non-profit corporation, do hereby certify that, at its April 15, 2008 meeting, the ERCOT Board of Directors passed a motion approving the above Resolution by a unanimous voice vote with no abstentions.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

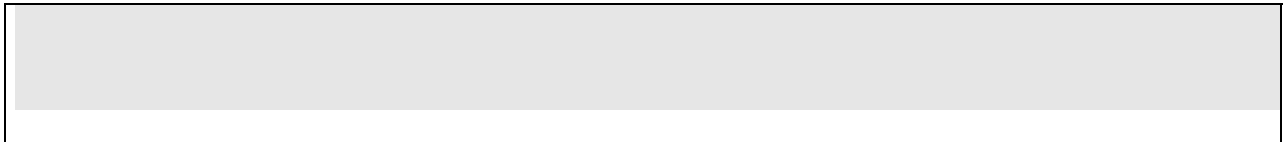
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Michael G. Grable  
Corporate Secretary

**Attachment A to Exhibit C**  
**To the Minutes of the April 15, 2008**  
**Board of Directors Meeting**

**12.4.4.2.3.3      Public Posting of Entity-Specific Market Reports**

- (1) Seven (7) days after the applicable Operating Day, ERCOT shall publicly post on its MIS the Schedule Control Error, as calculated by ERCOT and integrated over each Settlement Interval, for each QSE for each Settlement Interval of the applicable Operating Day.
- (2) Sixty (60) days after the applicable Operating Day, ERCOT shall post portfolio offer curves for BES and each type of Ancillary Service, for each area where available.



- (3) Forty-eight (48) hours after the applicable Operating Day, ERCOT shall post the bid price and the name of the QSE submitting the bid for the highest-priced bid selected or dispatched by ERCOT for Balancing Energy Service and each Ancillary Service, for each area where available.
- (4) If the MCPE or MCPC expressed in dollars per MWh or dollars per megawatt per hour (“Trigger Price”) exceeds fifty (50) times the Houston Ship Channel natural gas price index for any Settlement Interval in an Operating Day, the portion of any QSE’s bid for BES or any other Ancillary Service that is at or above the Trigger Price for the applicable Settlement Interval shall be posted seven (7) days after the day for which the bid was submitted.

(5) Ninety (90) days after the applicable Operating Day, ERCOT shall post the following by Settlement Interval and area, where available:

- (a) Final Energy Schedules for each QSE;
- (b) Final Ancillary Services Schedules for each QSE;
- (c) Resource Plans for each Resource represented by a QSE;
- (d) Actual output from each Resource;
- (e) All Dispatch Instructions from ERCOT for Balancing Energy and Ancillary Services; and
- (f) Load and Generation Resource output for each Congestion Zone for each QSE that dynamically schedules its Resources.

The information posted shall include the names of the Resources in the portfolio that were committed, the names of the Entities submitting the information, and the names of the Entities controlling each Resource in the portfolio. ERCOT shall determine the Entity in control of each Resource in accordance with subsection (e) of P.U.C. Subst. R. 25.502, Pricing Safeguards in Markets Operated by the Electric Reliability Council of Texas.

***[PRRXXX: Replace Section 12.4.4.2.3.3(6)(a)-(e) with the following on Operating Day March 1,***

(5) Sixty (60) days after the applicable Operating Day, ERCOT shall post the following by Settlement Interval and Congestion Zone (if applicable):

- (a) Final Energy Schedules for each QSE;
- (b) Final Ancillary Services Schedules for each QSE;
- (c) Resource Plans for each Resource represented by a QSE;
- (d) Actual output from each Resource;
- (e) All Dispatch Instructions from ERCOT for Balancing Energy and Ancillary Services;
- (f) Final metered Load and Resource output for QSEs that dynamically schedule their Resources.

The information posted shall include the names of the Resources in the portfolio that were committed, the names of the Entities submitting the information, and the names of the Entities controlling each Resource in the portfolio. ERCOT shall determine the Entity in control of each Resource in accordance with subsection (e) of P.U.C. SUBST. R. 25.502, Pricing Safeguards in Markets Operated by the Electric Reliability Council of Texas.



- (6) One hundred and eighty (180) days after the applicable Operating Day, ERCOT shall post Adjusted Metered Load for each QSE, by Congestion Zone and by Settlement Interval; and
- (7) To the extent that the data initially posted pursuant to the requirements of this subsection are subject to change in subsequent ERCOT settlement operations, ERCOT shall provide for incremental posting of each subsequent settlement operation as it affects the items required to be posted in this subsection within seven (7) days of the completion of any subsequent settlement operation. Data related to the initial posting and all subsequent settlement operations shall remain accessible for a period of at least twenty-four (24) months following the applicable Operating Day. Notwithstanding the foregoing, ERCOT is not required to update the data.

**Exhibit D**

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**BOARD OF DIRECTORS RESOLUTION**

**WHEREAS**, the Electric Reliability Council of Texas, Inc. (“ERCOT”) Board of Directors (“Board”) deems it desirable and in ERCOT’s best interest to approve the following Nodal Protocol Revision Request (NPRR):

- NPRR099 - *RMR Incentive Factor Payment*.

**THEREFORE be it RESOLVED**, that the Board approves the above-referenced Nodal Protocol Revision Request.

**CORPORATE SECRETARY’S CERTIFICATE**

I, Michael G. Grable, Corporate Secretary of Electric Reliability Council of Texas, Inc., a Texas non-profit corporation, do hereby certify that, at its April 15, 2008 meeting, the ERCOT Board of Directors passed a motion approving the above Resolution by unanimous voice vote with no abstentions.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

\_\_\_\_\_  
Michael G. Grable  
Corporate Secretary

**Exhibit E**

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**BOARD OF DIRECTORS RESOLUTION**

**WHEREAS**, the Electric Reliability Council of Texas, Inc. (“ERCOT”) Board of Directors (“Board”) deems it desirable and in ERCOT’s best interest to approve the following Nodal Protocol Revision Request (NPRR):

- NPRR103 - *Settlement of Power Imported via DC Ties and Block Load Transfer Under a Declared Emergency Condition.*

**THEREFORE be it RESOLVED**, that the Board approves the above-referenced Nodal Protocol Revision Request.

**CORPORATE SECRETARY’S CERTIFICATE**

I, Michael G. Grable, Corporate Secretary of Electric Reliability Council of Texas, Inc., a Texas non-profit corporation, do hereby certify that, at its April 15, 2008 meeting, the ERCOT Board of Directors passed a motion approving the above Resolution by unanimous voice vote with no abstentions.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

\_\_\_\_\_  
Michael G. Grable  
Corporate Secretary

**Exhibit F**

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**BOARD OF DIRECTORS RESOLUTION**

**WHEREAS**, the Electric Reliability Council of Texas, Inc. (ERCOT) Technical Advisory Committee (TAC) has unanimously recommended that the Board approve the *Plan for Managing Protocol Content During Texas Nodal Market Implementation* (Plan), appended hereto as Attachment A; and

**WHEREAS**, the ERCOT Board of Directors deems it desirable and in ERCOT's best interest to approve the Plan;

**NOW, THEREFORE, BE IT RESOLVED**, that the Board hereby approves the Plan.

**CORPORATE SECRETARY'S CERTIFICATE**

I, Michael G. Grable, Corporate Secretary of Electric Reliability Council of Texas, Inc., a Texas non-profit corporation, do hereby certify that, at its April 15, 2008 meeting, the ERCOT Board of Directors passed a motion approving the above Resolution by a vote of ten in favor and one opposed, with one abstention.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_ day of \_\_\_\_\_, 2008.

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Michael G. Grable  
Corporate Secretary

**Attachment A to Exhibit F**  
**To the Minutes of the April 15, 2008**  
**Board of Directors Meeting**

**Managing Protocol Content  
During  
Texas Nodal Market Implementation**

As the Texas Nodal Market design is finalized and tested, a clear and concise description of the market rules applicable to Market Participants and ERCOT is needed. The Texas Nodal Protocols as currently approved by the ERCOT Board of Directors (BOD) and the Public Utility Commission of Texas (PUCT) provide the source from which all designs and requirements are based. As the Texas Nodal Market Implementation Date nears, the following process will be used to guide Market Participants and ERCOT in managing Nodal Protocol content and proposed revisions.

The ERCOT Technical Advisory Committee (TAC) established the Transition Plan Task Force (TPTF) to “assist ERCOT and assure alignment between the requirements of the nodal Protocols and system design and implementation.” TPTF evaluates and assigns the status of any nodal functionality and process changes as follows:

- **Needed for “Go-Live”**-- functionality must be available on the Texas Nodal Market Implementation Date;
- **Approved Post “Go-Live”** -- functionality needed for the nodal market but can be deferred past the Texas Nodal Market Implementation Date. The 2008 planning, development and testing effort should be funded as part of the nodal project and requires an implementation plan (e.g, design document updates and reviews, testing plan, effective date); and
- **Deferred Projects** -- functionality not needed on the Texas Nodal Market Implementation Date or not included in Approved Post “Go-Live” scope and requirements.

In assessing the appropriate Status, TPTF shall evaluate the impacts to functionality and processes and make a preliminary Status (Needed for “Go-Live”, Approved Post “Go-Live, or Deferred Projects) assignment. Only after TPTF has made its preliminary assignment will the ERCOT Nodal PMO and ERCOT Nodal Project Subject Matter Experts review and report to TPTF the impacts to project cost and schedule. TPTF, based on the input of ERCOT Project Management Office (PMO) shall finalize its evaluation and Status recommendation to TAC. The TPTF Chair shall immediately notify TAC of the TPTF evaluation results and recommendations. TAC will act in accordance with its established procedures.

Status assignments will be reflected in the existing approved Nodal Protocols through the NPRR process described in Section 21 of the ERCOT Protocols. As a general policy, the blackline nodal protocols reflect the “as built” systems implemented at “go-live”. Changes to the blackline to reflect a system project funded by the ERCOT BOD will appear in the Nodal Protocols as “gray boxes” and will include a proposed implementation date. Proposed implementation dates are subject to change based on the level of Nodal stabilization effort that is required in 2009. Protocol revisions not funded through the nodal project (See Deferred Projects Status above) will be added to the Project Priority List (PPL) and scheduled into releases based on the ERCOT Protocol Revision Subcommittee (PRS) prioritization as approved by TAC and will not appear in the nodal protocols.

Because of the interdependency of ERCOT and Market Participant systems, changes to nodal system functionality will require greater coordination in the future. For each approved and funded “gray-boxed”

Nodal Protocol revision, ERCOT shall determine the schedule for development and testing of its and Market Participant systems as necessary and notify the market of the testing schedule and Protocol effective date and update the gray box notations as necessary.

The following describes the “gray-boxing” process:

#### **Nodal Functionality Unavailable At “Go-Live”**

An existing approved Nodal Protocol’s functionality or process can not be implemented by the current “Go-Live” date due to software problems, missing procedures or Market readiness criteria failures.

- ◆ If an acceptable workaround to the final system design cannot be implemented, ERCOT will initiate a NPRR to change the requirement in the existing approved protocol. The NPRR form must include: 1) a summary of when the “gray-box” requirement could be implemented; 2) if the deleted requirement is recommended to be permanently replaced with revised requirements or permanently deleted; 3) the project schedule date when the changed language could be reinstated; and 4) an estimated project cost.
- ◆ Market Participants may review the ERCOT NPRR and file comments using the process described in Protocol Section 21 regarding the proposed change, ERCOT’s recommendations, the proposed reinstatement schedule, and estimated project cost.
- ◆ TPTF, PRS, TAC and the BOD will approve/reject the nodal protocol revision and recommended implementation date
- ◆ Upon approval, the reinstatement schedule will be reflected in the ERCOT Project Priority List (PPL)
- ◆ The ERCOT Market Rules group will post the approved changes and provide notice to the Commission and Market Participants

#### **Standard Nodal Protocol Revision Request**

If a Protocol revision is desired by ERCOT or a Market Participant, then:

- ◆ an entity proposing a Nodal Protocol change will initiate a NPRR using the existing process;
- ◆ the NPRR form will require the Market Participant or ERCOT to state desired implementation schedule;
- ◆ the TPTF and the ERCOT Nodal Project team, using the above process, will assess the impact on the project cost and implementation date if the implementation schedule for the NPRR is for Needed For “Go-Live”;
- ◆ Market Participants will review the NPRR and ERCOT comments and may file comments to TPTF and PRS;
- ◆ TPTF, PRS, TAC and the BOD will approve/disapprove the NPRR and assign the proposed change one of the status categories described above; and
- ◆ The ERCOT Market Rules group will post the approved changes and provide notice to the Commission and Market Participants.

The web site for posting NPRRs will be revised to include a new category of NPRR to indicate one that has been approved but its implementation date has been delayed past the nodal Go-Live date.

**Exhibit G**

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**BOARD OF DIRECTORS RESOLUTION**

**WHEREAS**, the Finance and Audit Committee of the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) recommends acceptance of the Pricewaterhouse-Coopers, LLP Report on Audit of Financial Statements for the Years Ended December 31, 2007 and 2006 (Report); and

**WHEREAS**, the Board deems it desirable and in ERCOT's best interest to accept the ERCOT audited financial statements and the Report;

**NOW, THEREFORE, BE IT RESOLVED**, that the Board hereby accepts the ERCOT audited financial statements and the Report, provided that the final version of the Report is not materially changed from the near-final version reviewed by the Finance & Audit Committee on April 15, 2008. For the purpose of this Resolution only, a material change would be: (1) any change in the net income; (2) a change of more than \$1 million in any other aspect, as approved by the Chair and Vice-Chair of the Finance & Audit Committee, of the financial statements; or (3) any qualification on the audit opinion.

**CORPORATE SECRETARY'S CERTIFICATE**

I, Michael G. Grable, Corporate Secretary of Electric Reliability Council of Texas, Inc., a Texas Non-profit corporation, do hereby certify that, at its April 15, 2008 meeting, the ERCOT Board of Directors passed a motion approving the above Resolution by a vote of

\_\_\_\_\_.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_ day of \_\_\_\_\_, 2008.

\_\_\_\_\_  
Michael G. Grable  
Corporate Secretary