



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

Electric Reliability Council of Texas, Inc.  
7620 Metro Center Drive, Room 206  
Austin, Texas 78744  
November 16, 2010 at 8:30 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:**

<b>Director</b>	<b>Affiliation</b>	<b>Segment</b>
Bivens, Danny	Office of Public Utility Counsel	Consumer/Residential (Alternate Representative for Sheri Givens)
Brown, Deryl	Hudson Energy Services	Independent Retail Electric Provider (Segment Alternate for Marcie Zlotnik)
Crowder, Calvin	American Electric Power Service Corporation	Investor Owned Utility
Dalton, Andrew	Valero Services, Inc.	Consumer/Industrial
Doggett, Trip	ERCOT	President and Chief Executive Officer
Doll, Laura		Unaffiliated
Dreyfus, Mark	Austin Energy	Municipal
Espinosa, Miguel		Unaffiliated (Proxy for Jorge Bermudez)
Fehrenbach, Nick	City of Dallas	Consumer / Commercial (except for Agenda Items 9b, 9c and 9d)
Gent, Michehl		Unaffiliated, Acting Board Chairman
Helton, Bob	International Power America Services	Independent Generator
Karnei, Clifton	Brazos Electric Power Cooperative, Inc.	Cooperative
Nelson, Donna	Public Utility Commission of Texas	Commissioner (Alternate Representative for Barry T. Smitherman)
Patton, A.D.		Unaffiliated
Ryall, Jean	Constellation Energy Commodities Group	Independent Power Marketer (beginning with Agenda Item 4 and except for Agenda Item 20)



Guests:

Bruce, Mark	Stratus Energy Group
Cleary, Mike	ERCOT Senior Vice President and Chief Operating Officer
Coleman, Katie	Andrews & Kurth LLP
Day, Betty	ERCOT Director of Commercial Market Operations
Dumas, John	ERCOT Director of Wholesale Market Operations
Gage, Theresa	ERCOT Director of External Affairs
Hartzog, John	Third Planet Windpower
Hobbs, Kristi	ERCOT Manager of Market Rules
Jones, Brad	Luminant, Technical Advisory Committee Chair
Jones, Dan	Potomac Economics
Leady, Vickie	ERCOT Senior Corporate Counsel and Assistant Corporate Secretary
Magness, Bill	ERCOT Vice President, General Counsel and Corporate Secretary
Manning, Chuck	ERCOT Vice President and Chief Compliance Officer
Morgan, Richard	ERCOT Vice President and Chief Information Officer
Morris, Sandy	Lower Colorado River Authority
Petterson, Mike	ERCOT Controller
Prochazka, Scott	CenterPoint Houston Electric LLC (Segment Alternate)
Ragsdale, Kenneth	ERCOT Principal of Market Design and Analysis
Saathoff, Kent	ERCOT Vice President of Grid Operations and System Planning
Schwertner, Ray	Garland Power & Light (Segment Alternate)
Stephenson, Randa	Luminant
Sullivan, Patrick	Haynes and Boone LLP
Walker, Mark	NRG Texas LLC (Segment Alternate)
Whittle, Brandon	DB Energy Trading LLC (Segment Alternate)
Woodfin, Dan	ERCOT Director of System Planning
Yager, Cheryl	ERCOT Treasurer

**Call Open Session to Order and Announce Proxies (Agenda Item 1)**

Michehl Gent, ERCOT Acting Board Chairman, determined a quorum was present and called the meeting to order at approximately 8:34 a.m.

Chairman Gent noted that: Jorge Bermudez had designated Miguel Espinosa as his proxy; Deryl Brown was acting as the Independent Retail Electric Provider Segment Alternate for Marcie Zlotnik; Danny Bivens was acting as Alternate Representative for the Office of Public Utility Counsel and Residential Consumer Segment for Sheri Givens; and Commissioner Donna Nelson was acting as Alternate Representative for the Public Utility Commission of Texas (Commission) Chairman Barry T. Smitherman.

Chairman Gent pointed out the Antitrust and Security Admonitions and asked for notice if there were any such concerns during discussions in the meeting.



Chairman Gent took the Agenda Items in the following order for scheduling convenience.

### **Consent Agenda (Agenda Item 2)**

Chairman Gent requested the removal of Nodal Protocol Revision Requests (NPRRs) 209 and 281 from the Consent Agenda to allow discussion of supplemental information received after the submission deadline for Board materials.

Chairman Gent requested approval of the following items on the Consent Agenda:

- Agenda Item 6a (in part) – NPRRs 256, 257, 258, 265, 266, 267, 268, 270, 271, 272, 276, 277, 285 and 288.

**Nick Fehrenbach moved to approve the above-noted items on the Consent Agenda. Bob Helton seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

### **Approval of October 19, 2010 Board Meeting Minutes (Agenda Item 3)**

**Laura Doll moved to approve the General Session minutes of the October 19, 2010 Board Meeting as presented. Mr. Helton seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

### **Chief Executive Officer (CEO) Update (Agenda Item 4)**

Trip Doggett, ERCOT President and Chief Executive Officer, provided the Board with the CEO Update. Mr. Doggett and Kent Saathoff, ERCOT Vice President of Grid Operations and System Planning, responded to the Board's questions on this topic.

Mr. Doggett recognized Roy McCoy, ERCOT Manager of Regulatory Support and Reporting, for his tireless contributions to ERCOT's success. He noted that Mr. McCoy began his career with ERCOT in 1996 as one of four employees and as the first employee at the Taylor facility. Mr. Doggett shared that, among his extraordinary contributions to ERCOT, Mr. McCoy started ERCOT's Transmission Congestion Rights (TCR) Program as well as its widely-recognized Renewable Energy Credit (REC) Program. Mr. Doggett added that Mr. McCoy was a distinguished veteran who earned a Purple Heart in the Vietnam War among other military commendations and noted Mr. McCoy's extensive involvement in charities benefitting amputees and veterans. Mr. Doggett thanked Mr. McCoy for his dedication to ERCOT and congratulated him on his upcoming retirement. Chairman Gent also thanked Mr. McCoy for his dedication to ERCOT.

### **Other Business (Agenda Item 11)**

**Luminant Energy Company LLC (Luminant) Appeal of CEO Determination of Not Needed for Go-Live on NPRR290**



Chairman Gent noted that Luminant appealed the ERCOT CEO determination of not needed for Go-Live on NPRR290. Bill Magness, ERCOT Vice President, General Counsel and Corporate Secretary, provided an overview of the procedural process for appealing an ERCOT CEO determination of not needed for Go-Live for NPRRs and emphasized that, pursuant to the Protocols, the issue for the Board's determination was limited to the appeal of the CEO determination rather than the merits of NPRR290 itself. Brad Jones of Luminant agreed with Mr. Magness' interpretation. Randa Stephenson of Luminant presented Luminant's position with regard to the appeal and responded to Board members' questions on this topic. Sandy Morris of Lower Colorado River Authority provided comments in support of Luminant's appeal. Mr. Doggett provided ERCOT's comments opposing Luminant's appeal. Mr. Doggett, Kristi Hobbs, ERCOT Manager of Market Rules, Mike Cleary, ERCOT Senior Vice President and Chief Operating Officer, and John Dumas, ERCOT Director of Wholesale Market Operations, responded to Board members' questions on this topic. Jean Ryall requested an update at the December 14, 2010 Board meeting on the coordination between Luminant and ERCOT on the possible workaround for data conversion related to the Day Ahead Market (DAM) Power System Simulator for Engineering (PSS/E) files and an update on the status of NPRR290. Ms. Stephenson agreed to be available for the December 14, 2010 Board meeting. After lengthy discussion, Chairman Gent called for a motion to deny Luminant's appeal of the CEO Determination of not needed for Go-Live on NPRR290 and to encourage the Protocol Revision Subcommittee (PRS) and the Technical Advisory Committee (TAC) to review NPRR290 in the normal course of business.

**Andrew Dalton moved to deny Luminant's appeal of the CEO Determination of not needed for Go-Live on NPRR290 and to encourage PRS and TAC to review NPRR290 in the normal course of business. Miguel Espinosa seconded the motion. Clifton Karnei made a friendly amendment to modify the motion to instruct ERCOT management to work with the market and to use best efforts to determine, in the ERCOT CEO's discretion, possible manual workarounds for the data conversion related to the DAM PSS/E files during the next month. Mr. Dalton did not accept Mr. Karnei's friendly amendment. Chairman Gent called for a vote on the motion as originally stated by Mr. Dalton. The motion passed by unanimous voice vote with one abstention (Mr. Doggett).**

**Mr. Karnei moved to instruct ERCOT management, during the next month, to work with the market to determine possible manual workarounds for the data conversion related to the DAM PSS/E files. Ms. Ryall seconded the motion. Mr. Cleary and Mr. Dumas responded to the Board members' questions. After lengthy discussion, the motion failed with six in favor (Deryl Brown, Calvin Crowder, Mark Dreyfus, Bob Helton, Mr. Karnei and Ms. Ryall), five opposed (Danny Bivens, Mr. Dalton, Ms. Doll, Mr. Fehrenbach and A.D. Patton), and one abstention (Mr. Doggett). Mr. Espinosa, who held Mr. Bermudez' proxy, was not present briefly during this vote. Chairman Gent observed that ERCOT staff has taken notice of the Board's intent with regard to this matter.**

### **Operating Reports (Agenda Item 5)**

Chairman Gent noted that he would entertain questions on the Operating Reports.



### **Financial Summary Report (Agenda Item 5a)**

Chairman Gent invited comments or questions regarding the Financial Summary Report, but there were none.

### **External Affairs Update (Agenda Item 5b)**

Chairman Gent introduced Theresa Gage, ERCOT Director of External Affairs, and noted that she will be providing the Board with a standing update beginning in December 2010 through the Legislative Session. Ms. Gage provided the External Affairs Update.

### **Market Operations Report (Agenda Item 5c)**

Chairman Gent invited comments or questions regarding the Market Operations Report. Betty Day, ERCOT Director of Commercial Market Operations, responded to Board members' questions on this topic. Dr. Patton and Chairman Gent asked Ms. Day to identify the level of Qualified Scheduling Entity (QSE) in the monthly Market Operations Report. Mr. Fehrenbach asked Ms. Day to provide information to the Board to demonstrate whether there has been any cost impact as a result of the changes to the Ancillary Services Methodology. Mr. Fehrenbach also asked Ms. Day to review ERCOT producing total requirement versus self-arranged capacity services with regard to Non-Spinning Reserve. Ms. Day agreed to provide the requested information at the December 2010 Board meeting.

### **Grid Operations and Planning Report (Agenda Item 5d)**

Chairman Gent invited comments or questions regarding the Grid Operations and Planning Report. Kent Saathoff, ERCOT Vice President of Grid Operations and System Planning, provided an update on the required use of Load Acting as a Resource (LaaRs) on November 3, 2010, and responded to Board members' questions. In response to inquiries from Messrs. Gent and Dalton, Mr. Saathoff agreed to provide an update at the January 2011 Board meeting on the timing of an ERCOT study on LaaRs and Responsive Reserve after Nodal Go-Live. Ms. Saathoff advised that the Reliability Must Run agreements for two Permian units would be expiring on December 1, 2010, and that ERCOT would be able to allow the expiration of those contracts based on the installation of an autotransformer at Odessa by Oncor. Mr. Fehrenbach asked that more contrasting colors be used on the monthly chart entitled "Actual Wind Output w/Curtailment Added Back vs. Wind Day-Ahead Resource Plan Based on AWS Forecast for All Hours". Mr. Fehrenbach also requested that, to the extent that it would not be cost prohibitive, Mr. Saathoff provide hourly average curtailments on the daily wind penetration reports. Mr. Dalton requested that the three best and three worst monthly scores for 2007 through 2010 be added to the "Day-Ahead Load Forecast Performance" chart in the future.

### **Information Technology (IT) and Facilities Report (Agenda Item 5e)**

Chairman Gent invited comments or questions regarding the IT and Facilities Report. Richard Morgan, ERCOT Vice President and Chief Information Officer, provided a brief update on the



two recent data center power outages and responded to the Board members' questions on the subject. Mr. Morgan noted that additional information on the outages would be provided during Executive Session later in the meeting.

### **Nodal Program Update (Agenda Item 5f)**

The Nodal Program Update was provided later in the meeting.

### **Technical Advisory Committee (TAC) Report (Agenda Items 6 and 6a-f)**

Chairman Gent invited Brad Jones, TAC Chair, to provide a report on recent TAC activities. Mr. B. Jones noted that the Consent Agenda addressed all NPRRs with the exception of NPRRs 209 and 281.

### **Nodal Protocol Revision Requests (NPRRs) (Agenda Items 6a)**

#### **NPRR209**

- **NPRR209 – Data Posting Changes to Comply with P.U.C. SUBST. R. 25.505 [NRG Texas and Calpine].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** Less than fifty thousand dollars (\$50k); no ERCOT staffing impacts; Enterprise Data Warehouse (EDW) and Enterprise Information Service (EIS) will be modified; ERCOT business processes would be revised to accommodate this NPRR; no impacts to ERCOT grid operations or practices.

**Revision Description:** This NPRR removes a requirement to post certain State Estimator information that can be used to determine Resource status, which is confidential information as per Public Utility Commission of Texas (PUCT) rules.

**Procedural History:** NPRR209 was posted on February 5, 2010. On February 18, 2010, the motion to recommend approval of NPRR209 as submitted failed via roll call vote. The Protocol Revisions Subcommittee (PRS) then voted to table NPRR209. There were two (2) abstentions from the Cooperative and Investor Owned Utility (IOU) Market Segments. On March 25, 2010, PRS voted to recommend approval of NPRR209 as submitted via roll call vote. On April 22, 2010, PRS voted to endorse and forward the March 25, 2010 PRS Report and Impact Analysis for NPRR209 to TAC via roll call vote. On May 6, 2010, the motion to table NPRR209 at TAC and request the Wholesale Market Subcommittee (WMS) and Reliability and Operations Subcommittee (ROS) to determine what data can be released to the market failed via roll call vote. In a subsequent vote, TAC unanimously voted to table NPRR209. On July 1, 2010, the motion to recommend approval of NPRR209 as amended by the May 4, 2010 NRG Texas and Calpine comments failed via roll call vote. TAC then voted to table NPRR209 for one (1) month via roll call vote. On August 5, 2010, TAC unanimously voted to table NPRR209. On November 4, 2010, TAC unanimously voted to recommend



approval of NPRR209 as amended by the November 4, 2010 Luminant Energy comments and as revised by TAC.

**Mr. Helton moved to approve NPRR209. Mr. Dalton seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

#### NPRR256

- **NPRR256 – Synchronize Nodal Protocols with PRR787, Add Non-Compliance Language to QSE Performance Standards (formerly “Add Violation Language to QSE Performance Standards”) [Luminant Energy].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan’s Texas Nodal Market Implementation Date as prescribed by Zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Partially no opinion on whether or not NPRR256 is necessary prior to the Texas Nodal Market Implementation Date. Grey-boxed language is not necessary prior Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no additional full-time equivalents needed; no system changes required; no impacts to ERCOT business functions; no impact to grid operations. Due to “Not Needed for Go-Live” designation by the ERCOT CEO for the grey-boxed portions of NPRR256, the Impact Analysis for the grey-boxed language will be conducted at a future date.

**Revision Description:** This NPRR aligns the Nodal Protocols with changes implemented from PRR787, Add Non-Compliance Language to QSE Performance Standards (formerly “Add Violation Language to QSE Performance Standards”), approved by the ERCOT Board on August 18, 2009, and addresses the exclusion of Generation Resource Energy Deployment Performance (GREDP) during testing periods. This NPRR also addresses timing discrepancies in updating Resources’ Ancillary Service Schedule during qualification testing.

**Procedural History:** NPRR256 was posted on July 15, 2010. On July 22, 2010, PRS unanimously voted to table NPRR256. On August 19, 2010, PRS unanimously voted to refer NPRR256 to the Nodal Advisory Task Force (NATF). The Independent Power Marketer (IPM) Market Segment was not present for the vote. On September 23, 2010, PRS voted to recommend approval of NPRR256 as amended by the September 22, 2010 NATF comments and as revised by PRS. There were three (3) abstentions from the Consumer, Independent Generator (IGM) and IPM Market Segments. On October 21, 2010, PRS voted to endorse and forward the September 23, 2010 PRS Report as amended by the September 30, 2010 South Texas Electrical Cooperative (STEC) comments and as revised by PRS and Impact Analysis for NPRR256 to TAC and to recommend a priority of Medium to the grey-boxed language. There were two (2) abstentions from the IPM and Consumer Market Segments. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR256 as amended by the November 1, 2010 ERCOT comments and as revised by TAC and to recommend a priority of Medium to the grey-boxed language.

**NPRR256 was approved as part of the Consent Agenda (Agenda Item 2).**



## NPRR257

- **NPRR257 – Synchronization with Nodal Operating Guide Section 9, Monitoring Programs and Changes to Posting Requirements of Documents Considered CEII formerly “Synchronization with Nodal Operating Guide Section 9, Monitoring Programs”) [ERCOT].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan’s Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Partially necessary prior to the Texas Nodal Market Implementation Date. Grey-boxed language is not necessary prior Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices. Due to “Not Needed for Go-Live” designation by the ERCOT CEO for the grey-boxed portions of NPRR257, the Impact Analysis for the grey-boxed language will be conducted at a future date.

**Revision Description:** This NPRR grey-boxes multiple sections of the Nodal Protocols to align with Nodal Operating Guide Section 9, Monitoring Programs. This NPRR also changes the posting requirement for certain Black Start documents which meet the definition of CEII and removes the requirement for posting Black Start procedures for Resource Entities that have Black Start Agreements with ERCOT since 8.1 is related to performance monitoring.

**Procedural History:** NPRR257 was posted on July 23, 2010. On August 19, 2010, PRS unanimously voted to refer NPRR257 to NATF. The IPM Market Segment was not present for the vote. On September 23, 2010, PRS voted to recommend approval of NPRR257 as amended by the September 16, 2010 ERCOT comments. There was one (1) opposing vote from the IOU Market Segment and two (2) abstentions from the IGM Market Segment. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report as amended by the October 19, 2010 ERCOT comments and revised Impact Analysis for NPRR257 to TAC and to recommend a priority of High/Medium to the grey-boxed language. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR257 as revised by the November 3, 2010 ERCOT comments and to recommend a priority of High/Medium to the grey-boxed language.

**NPRR257 was approved as part of the Consent Agenda (Agenda Item 2).**

## NPRR258

- **NPRR258 – Synchronization with PRR824 and PRR833 and Additional Clarifications [Performance, Disturbance, Compliance Working Group (PDCWG)].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan’s Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Partially necessary prior to the Texas Nodal Market Implementation Date. Grey-boxed language is not necessary prior Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT





grid operations and practices. Due to “Not Needed for Go-Live” designation by the ERCOT CEO for the grey-boxed portions of NPRR258, the Impact Analysis for the grey-boxed language will be conducted at a future date.

**Revision Description:** This NPRR synchronizes the Nodal Protocols with PRR824, Primary Frequency Response from WGRs and PRR833, Primary Frequency Response Requirement from Existing WGRs; refines and clarifies the definition of GREDP; moves the definition of Measurable Event to Section 2.1; and proposes a definition for Dead Band as defined in Section 6.2.1.4, Definitions, of the zonal Operating Guides.

**Procedural History:** NPRR258 was posted on July 23, 2010. On August 19, 2010, PRS unanimously voted to refer NPRR258 to the ROS. The IPM Market Segment was not present for the vote. On September 23, 2010, PRS unanimously voted to recommend approval of NPRR258 as amended by the September 22, 2010 PSEG TX comments. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report as revised by PRS and Impact Analysis for NPRR258 to TAC and to recommend a priority of High/Medium to the grey-boxed language. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR258 as amended by the October 27, 2010 ERCOT comments and as revised by TAC and to recommend a priority of High/Medium to the grey-boxed language.

**NPRR258 was approved as part of the Consent Agenda (Agenda Item 2).**

#### NPRR265

- **NPRR265 – MIS Secure Area Posting of Resource Category – As-Built Clarification [ERCOT].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan’s Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

**Revision Description:** This NPRR accounts for the posting of Resource Categories as a secure extract to the MIS Secure Area in support of calculating Minimum and Maximum Resource Prices in CRR Settlement. This NPRR also adds a definition for “Resource Category.”

**Procedural History:** NPRR265 was posted on August 31, 2010. On September 23, 2010, PRS unanimously voted to recommend approval of NPRR265 as amended by the September 17, 2010 Luminant Energy comments. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report and Impact Analysis for NPRR265 to TAC. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR265 as recommended by PRS in the October 21, 2010 PRS Report.

**NPRR265 was approved as part of the Consent Agenda (Agenda Item 2).**



## NPRR266

- **NPRR266 – Installed Capacity of Unregistered DG [CPS Energy].**  
**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.  
**CEO Determination:** No opinion on whether or not NPRR266 is necessary prior to the Texas Nodal Market Implementation Date.  
**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.  
**Revision Description:** This NPRR clarifies that only the capacity of unregistered DG Resources is totaled for the determination that the DG registration threshold must be lowered.  
**Procedural History:** NPRR266 was posted on August 31, 2010. On September 23, 2010, PRS unanimously voted to recommend approval of NPRR266 as submitted. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report and Impact Analysis for NPRR266 to TAC. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR266 as recommended by PRS in the October 21, 2010 PRS Report.

**NPRR266 was approved as part of the Consent Agenda (Agenda Item 2).**

## NPRR267

- **NPRR267 – Allow ERCOT to Manage Operations Model Pseudo Devices [AEP].**  
**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.  
**CEO Determination:** No opinion on whether or not NPRR267 is necessary prior to the Texas Nodal Market Implementation Date.  
**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.  
**Revision Description:** This NPRR will remove any reference to pseudo devices in the Protocols.  
**Procedural History:** NPRR267 was posted on August 31, 2010. On September 23, 2010, PRS unanimously voted to recommend approval of NPRR267 as revised by PRS. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report and Impact Analysis for NPRR267 to TAC. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR267 as recommended by PRS in the October 21, 2010 PRS Report.

**NPRR267 was approved as part of the Consent Agenda (Agenda Item 2).**



## NPRR268

- **NPRR268 – Posting Requirements of Verifiable Costs Documents [ERCOT].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

**Revision Description:** This NPRR allows ERCOT to post the Verifiable Cost Manual publicly on the ERCOT website.

**Procedural History:** NPRR268 was posted on September 1, 2010. On September 23, 2010, PRS unanimously voted to recommend approval of NPRR268 as submitted. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report and Impact Analysis for NPRR268 to TAC. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR268 as recommended by PRS in the October 21, 2010 PRS Report.

**NPRR268 was approved as part of the Consent Agenda (Agenda Item 2).**

## NPRR269

- **NPRR269 – Synchronization of PRR830, Reactive Power Capability Requirement [ERCOT].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

**Revision Description:** This NPRR synchronizes the Nodal Protocols with PRR830, Reactive Power Capability Requirement, approved by the ERCOT Board on November 17, 2010. In addition, Nodal Protocol references to Point of Interconnection (POI) are being updated to reflect the defined term where appropriate.

**Procedural History:** NPRR269 was posted on September 9, 2010. On September 23, 2010, PRS voted to recommend approval of NPRR269 as amended by the September 20, 2010 Luminant comments. There was one (1) opposing vote from the (IGM) Market Segment and three (3) abstentions from the Consumer, (IGM) and Independent Retail Electric Provider (IREP) Market Segments. On October 21, 2010, PRS voted to endorse and forward the September 23, 2010 PRS Report as revised by PRS and the Impact Analysis for NPRR269 to TAC. There were four (4) abstentions from the Independent Generator, Consumer, IPM, and IOU Market Segments. On November 4, 2010, TAC voted to recommend approval of NPRR269 as amended by the November 1, 2010 ERCOT comments and as revised by TAC. There was one (1) opposing vote from the IGM Market Segment.



Chairman Gent invited comments from the audience on NPRR269. John Hartzog of Third Planet Windpower provided comments on NPRR269. **After discussion, Calvin Crowder moved to approve NPRR269 and to instruct ERCOT staff to make a filing with the Commission to reflect an abatement parallel to Protocol Revision Request (PRR) 830. Mr. Bivens seconded the motion.** The Board members and Mr. Magness discussed this matter further. Patrick Sullivan of Haynes and Boone, representing Horizon Wind Energy LLC, the Sweetwater Wind companies and Silver Star 1 Power Partners LLC, provided comments on NPRR269 and responded to Chairman Gent's questions on this topic. Chairman Gent reminded Mr. Sullivan of the Board materials submission deadline. **The motion passed by unanimous voice vote with no abstentions.**

#### NPRR270

- **NPRR270 – Defining the Variable Used in the Wind Generation Formula [ERCOT].**  
**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.  
**CEO Determination:** No opinion on whether or not NPRR270 is necessary prior to the Texas Nodal Market Implementation Date.  
**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.  
**Revision Description:** This NPRR inserts variable definitions for the wind adjust formula in the grey-boxed language for Section 11.4.4.2; and changes references of Transmission and/or Distribution Service Provider (TDSP) to Distribution Service Provider (DSP) where appropriate in Section 10.2.2.  
**Procedural History:** NPRR270 was posted on September 13, 2010. On September 23, 2010, PRS unanimously voted to recommend approval of NPRR270 as submitted. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report and Impact Analysis for NPRR270 to TAC. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR270 as recommended by PRS in the October 21, 2010 PRS Report.

**NPRR270 was approved as part of the Consent Agenda (Agenda Item 2).**

#### NPRR271

- **NPRR271 – Synchronization to PRR850, Weather Responsiveness Determination for Interval Data Recorders [ERCOT].**  
**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.  
**CEO Determination:** Necessary prior to the Texas Nodal Market Implementation Date.



**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

**Revision Description:** This NPRR aligns the Nodal Protocols with zonal Protocols by adding language that limits the applicability of the weather responsiveness test to Interval Data Recorder (IDR) Meters.

**Procedural History:** NPRR271 was posted on September 13, 2010. On September 23, 2010, PRS unanimously voted to recommend approval of NPRR271 as submitted. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report and Impact Analysis for NPRR271 to TAC. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR271 as recommended by PRS in the October 21, 2010 PRS Report.

**NPRR271 was approved as part of the Consent Agenda (Agenda Item 2).**

#### NPRR272

- **NPRR272 – Definition and Participation of Quick Start Generation Resources [ERCOT].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Partially necessary prior to the Texas Nodal Market Implementation Date. Grey-boxed language is not necessary prior Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** Less than fifty thousand dollars (\$50K); no ERCOT staffing impacts; minor impacts to Settlements and Billing and CSI systems; ERCOT business processes would be revised to accommodate this revision request; no impacts to ERCOT grid operations and practices. Impact Analysis for grey-boxed portion will be conducted at a future date due to "Not Needed for Go-Live" designation by the ERCOT CEO.

**Revision Description:** This NPRR provides language for effective participation of Quick Start Generation Resources (QSGRs) in SCED. Revisions for which implementation is not necessary prior to the Texas Nodal Market Implementation Date are grey-boxed. See also the White Paper entitled "Proposal for Determining Mitigated Cap Variable Operations and Maintenance (O&M) Cost for Quick Start Generation Resources" included with this NPRR submission as an attachment.

**Procedural History:** NPRR272 was posted on September 16, 2010. On September 23, 2010, PRS unanimously voted to table NPRR272 until the October 4, 2010 Special PRS meeting. On October 4, 2010, PRS unanimously voted to table NPRR272 until the October 21, 2010 PRS meeting. On October 21, 2010, PRS voted to recommend approval of NPRR272 as amended by the October 20, 2010 WMS comments and as revised by PRS, to recommend an initial value of two (2) for the "q" variable, to recommend a priority of High for the grey-boxed language, to endorse the White Paper as amended by the October 20, 2010 WMS comments and as revised by PRS, and to forward NPRR272 and the Impact Analysis to TAC. There was one (1) abstention from the Consumer Market Segment. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR272 as amended by the



November 3, 2010 ERCOT comments and to recommend a priority of High for the grey-boxed language.

**NPRR272 was approved as part of the Consent Agenda (Agenda Item 2).**

#### NPRR276

- **NPRR276 – MIS Posting Requirement for the Network Operations Model Load Schedule [ERCOT].**

**Proposed Effective Date:** Upon system implementation.

**CEO Determination:** No opinion on whether or not NPRR276 is necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** Less than fifty thousand dollars (\$50K) – no project required; this NPRR can be implemented within one (1) month of ERCOT Board approval; no ERCOT staffing impacts; impacts to the ERCOT MIS; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

**Revision Description:** This NPRR adds a MIS Public Area posting requirement for the database load schedule.

**Procedural History:** NPRR276 was posted on September 16, 2010. On September 23, 2010, PRS unanimously voted to recommend approval of NPRR276 as submitted. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report and Impact Analysis for NPRR276 to TAC. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR276 as recommended by PRS in the October 21, 2010 PRS Report.

**NPRR276 was approved as part of the Consent Agenda (Agenda Item 2).**

#### NPRR277

- **NPRR277 – Removal of NPRR119 Language for LDL Calculation and Modification to the SCED Ramp Rate Calculation (formerly “Removal of NPRR119 Language for LDL Calculation”) [ERCOT].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan’s Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** Less than fifty thousand dollars (\$50k); no ERCOT staffing impacts; minor system impacts to ERCOT Energy Management System (EMS); no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

**Revision Description:** This NPRR removes changes that were made to the LDL calculation within the Resource Limit Calculator (RLC) as part of NPRR119, RLC. The language in this NPRR will ensure that a Resource’s dispatch limits are calculated taking into consideration the Resource’s current net MW output and ramp rates. This NPRR also changes the SCED Up and Down Ramp Rate calculation (SURAMP and SDRAMP) to reduce the amount of ramp rate that is reserved for Regulation Service.



**Procedural History:** NPRR277 was posted on September 16, 2010. On September 23, 2010, PRS unanimously voted to recommend approval of NPRR277 as revised by PRS. On October 21, 2010, PRS unanimously voted to endorse and forward the September 23, 2010 PRS Report and Impact Analysis for NPRR277 to TAC. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR277 as amended by the November 3, 2010 ERCOT comments.

**NPRR277 was approved as part of the Consent Agenda (Agenda Item 2).**

#### NPRR278

- **NPRR278 – EILS Modifications to Correct Self-Provision Settlement Equations, to Accommodate Advanced Metering Infrastructure, and other Clarifications [ERCOT].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** No opinion on whether or not NPRR278 is necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no additional full-time equivalents needed; no system changes required; no impacts to ERCOT business functions; no impact to grid operations.

**Revision Description:** This NPRR proposes several modifications to the Nodal Protocols relating to EILS including correcting a Settlement inequity for QSEs providing EILS through Self-Provision; providing ERCOT with an important option for accommodating EILS Loads potentially consisting of large aggregations of Customers with Advanced Meters; removing the requirement that EILS capacity offers must be submitted in whole MW amounts; and defining a mechanism for ERCOT to reduce the payment for an EILS Load that fails two (2) consecutive Load-shed tests in an EILS Contract Period.

**Procedural History:** NPRR278 was posted on September 16, 2010. On September 23, 2010, PRS voted to table NPRR278. There was one (1) abstention from the IGM Market Segment. On October 21, 2010, PRS unanimously voted to recommend approval of NPRR278 as amended by the October 20, 2010 WMS comments and as revised by PRS and to forward NPRR278 and the Impact Analysis to TAC. On November 4, 2010, TAC voted to recommend approval of NPRR278 as recommended by PRS in the October 21, 2010 PRS Report. There was one (1) opposing vote from the Consumer Market Segment.

**Mr. Dalton moved to approve NPRR278. Mr. Brown seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

#### NPRR281

- **NPRR281 – Replace Seven-Day (7-Day) Forecast Requirement for QSEs Representing WGRs [AEP].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.



**CEO Determination:** No opinion on whether or not NPRR281 is necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no additional full-time equivalents needed; no system changes required; no impacts to ERCOT business functions; no impact to grid operations.

**Revision Description:** This NPRR eliminates the requirement that QSEs representing WGRs must provide a seven-day (7-day) forecast in their Current Operating Plan (COP). Instead, for hours 49-168, QSEs representing WGRs shall, using their best estimate enter a High Sustained Limit which may be based on the wind power profile as published on the ERCOT website.

**Procedural History:** NPRR281 was posted on September 27, 2010. On October 21, 2010, PRS voted to recommend approval of NPRR281 as amended by the October 20, 2010 AEP comments and as revised by PRS and to forward NPRR281 to TAC. There was one (1) abstention from the IGM Market Segment. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR281 as recommended by PRS in the October 21, 2010 PRS Report and as revised by TAC.

**Mr. Crowder moved to approve NPRR281. Ms. Doll seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

#### NPRR285

- **NPRR285 – Replace Generation Resource Base Point Deviation Charge Corrections [WMS].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Partially no opinion on whether or not NPRR285 is necessary prior to the Texas Nodal Market Implementation Date. Grey-boxed language is not necessary prior Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no ERCOT staffing impacts; no system changes required; ERCOT will modify its business processes to implement this NPRR; no impact to grid operations.

**Revision Description:** This NPRR provides that an exception to the Generation Resource Base Point Deviation Charge for any fifteen-minute (15-minute) Settlement Interval which includes a SCED interval that is less than four (4) minutes in duration. Additional changes are proposed to Base Point Deviation Charges for over- and under-generation, to be effective upon system implementation. This NPRR also removes the Base Point Deviation Charge for all Intermittent Renewable Resources (IRRs) until corrections to the Nodal systems can be implemented so that the charge applies to IRRs only when there is clear indication that the Base Point received needs to be followed.

**Procedural History:** NPRR285 was posted on October 13, 2010. On October 21, 2010, PRS voted to recommend approval of NPRR285 as amended by the October 20, 2010 WMS comments and as revised by PRS, to assign a priority of Critical to the grey-boxed language, and to forward NPRR285 to TAC. There was one (1) opposing vote from the IGM Market Segment. On November 4, 2010, TAC unanimously voted to recommend approval of





NPRR285 as amended by the October 28, 2010 STEC comments and as revised by TAC and to assign a priority of Critical to the grey-boxed language.

**NPRR285 was approved as part of the Consent Agenda (Agenda Item 2).**

#### NPRR286

- **NPRR286 – DAM Credit – Non-Business Day Processing [ERCOT].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** Necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** Fifty to one thousand dollars (\$50k - \$100k); will require supplemental staffing to support non-Business Day credit processing; minor impact to Market Management System (MMS); extend ERCOT credit functions into the weekend; no impact to grid operations.

**Revision Description:** This NPRR will allow ERCOT to send Available Credit Limits (ACLs) to Counter-Parties participating in the DAM and to send related collateral requests, as needed, on non-Business Days.

**Procedural History:** NPRR286 was posted on October 14, 2010. On October 21, 2010, PRS voted to recommend approval of NPRR286 as amended by the October 18, 2010 Austin Energy comments and as revised by PRS and to forward NPRR286 and the Impact Analysis to TAC. There was one (1) abstention from the Municipal Market Segment. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR286 as recommended by PRS in the October 21, 2010 PRS Report.

Mr. Karnei reported that the Finance and Audit Committee reviewed NPRR286 and supported the change from the 95<sup>th</sup> to 90<sup>th</sup> percentile as recommended by ERCOT staff and the Credit Working Group. **Mr. Helton moved to approve NPRR286. Mr. Karnei seconded the motion. The motion passed by voice vote with two opposed (Mr. Espinosa on his behalf and as proxy for Mr. Bermudez) and one abstention (Mr. Dalton).**

#### NPRR288

- **NPRR288 – Selection of CRR Load Distribution Factors for Use in CRR Monthly and Annual Auctions [ERCOT].**

**Proposed Effective Date:** Upon the Nodal Protocol Transition Plan's Texas Nodal Market Implementation Date as prescribed by zonal Protocol Section 21.12, Process for Transition to Nodal Market Protocol Sections.

**CEO Determination:** No opinion on whether or not NPRR288 is necessary prior to the Texas Nodal Market Implementation Date.

**ERCOT Impact Analysis:** No budgetary impact; no additional full-time equivalents needed; no system changes required; no impacts to ERCOT business functions; no impact to grid operations.

**Revision Description:** This NPRR has been created to allow the CRR Auction process to leverage use of this alternative Load distribution factor for monthly CRR Auctions. In this



manner, the monthly CRR Auction and DAM are more operationally accurate and aligned. This NPRR also includes a change to Section 7.3 to clarify that the Flowgate Revenue Rights, which ERCOT is required to auction, are those flowgates defined and described in accordance with Section 7.3.1, Flowgates.

**Procedural History:** NPRR288 was posted on October 20, 2010. On October 21, 2010, PRS voted to recommend approval of NPRR288 as submitted and to forward NPRR288 and the Impact Analysis to TAC. There were two (2) abstentions from the Consumer and IPM Market Segments. On November 4, 2010, TAC unanimously voted to recommend approval of NPRR288 as recommended by PRS in the October 21, 2010 PRS Report.

**NPRR288 was approved as part of the Consent Agenda (Agenda Item 2).**

**Revised Day-Ahead Market (DAM) Collateral Parameters Process (Agenda Item 6b)**

Mr. B. Jones presented the revised DAM Collateral Parameters Process. Cheryl Yager, ERCOT Treasurer, responded to Board member's questions and comments on this topic.

**Mr. Helton moved to approve the revised DAM Collateral Parameters Process as presented. Mr. Bivens seconded the motion. The motion passed by voice vote with ten in favor (Mr. Bivens, Mr. Brown, Mr. Crowder, Mr. Doggett, Ms. Doll, Mr. Dreyfus, Mr. Helton, Mr. Karnei, Dr. Patton and Ms. Ryall), three opposed (Mr. Dalton and Mr. Espinosa on his behalf and as proxy for Mr. Bermudez) and one abstention (Mr. Fehrenbach).**

**Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch (Agenda Item 6c)**

Mr. B. Jones presented the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch (SCED). Mr. B. Jones noted that Shadow Price Caps act as a limiter on the manner in which ERCOT systems will utilize the market to manage congestion across any specific element or as a limiter on the value or the cost of that management. He further noted that the recommended Transmission Constraint Shadow Price Caps in SCED for the Real-Time Market are: Base Case/Voltage Violation: \$5,000/megawatt (MW); and N-1 Constraint Violation: \$4,500/MW for 345 kV; \$3,500/MW for 138 kV; and \$2,800/MW for 69 kV. Mr. B. Jones clarified that the recommended caps for the DAM were contained in the Appendix of the ERCOT business practice document. He added that, with the shadow price caps, there is a potential that the prices will exceed the offer caps if they run up to the full shadow price cap on trying to manage the system.

Mr. B. Jones then commented that the Power Balance Penalties factor is a way for ERCOT systems to identify when there are no more alternatives for dispatching energy in the system. He added that there is still price formation that reflects that scarcity or lack of additional power. He further noted that a curve was proposed and worked through the Wholesale Market Subcommittee (WMS) and approved by TAC. Mr. B. Jones added that this curve reflects a virtual unit that offers into the system which: starts at the 1<sup>st</sup> MW violation at \$250/MW; runs up to 30<sup>th</sup> MW violation at \$500/MW; runs from the 30<sup>th</sup> MW violation to the 50<sup>th</sup> MW violation



beyond \$500/MW; and ramps thereon from \$500/MW to \$3,000/MW. He reported that during the time that the virtual unit is deployed, regulation services will make up that gap.

Mr. Dumas advised that these are the Load Frequency Control (LFC) tests (as recently as November 12, 2010) were conducted using these values and that ERCOT believes that these values are working from a system perspective. He emphasized that the offer cap of \$180 was in the system and used in the tests, but that the prices may exceed the offer caps due to transmission constraints since the value of solving the transmission constraint as well as the cost of energy comprise the two components of the price. Mr. Dumas provided examples that illustrate the cost may far exceed the \$180 offer cap for solving the transmission constraint at a resource node and may go as high as \$3,001, which ERCOT did observe during the LFC test on November 12, 2010. He added that when dispatchable generation is not available from units that offer less than \$180, then the system will use this pseudo unit to resolve the constraint. He added that the cost to the resolve power balance is embedded in that curve so the cost can be as high as \$3001, which ERCOT experienced at the LFC test on November 12, 2010. He continued that there were sixteen SCED intervals where the five minute SCED intervals in which the price was up above \$2000. He noted these prices were a result of getting into the power balance penalty that was primarily due to a lot of wind generation in the West and having to constrain West to North. He added that ERCOT also had some congestion on the system North to Houston which meant that ERCOT dispatched all the available generation and went into the power balance penalty that resulted in load zone prices per six settlement intervals (which are 15-minute intervals) higher than a \$1000 for those six settlement intervals. He commented that mechanically it worked the way it should and that ERCOT has reviewed those prices and believe they are valid. He added that there were no errors and that ERCOT expects that such prices and this situation to occur in Real-Time past December 1, 2010. He concluded by sharing that a price higher than the cap, that is dispatchable less than \$180 in the system, would utilize the pseudo unit to resolve power balance. Mr. Dumas responded to the Board members' questions on this topic.

Commissioner Donna Nelson identified this situation as a difficult policy call. Commissioner Nelson noted that, in her opinion, it was desirable to have a scarcity pricing mechanism in place in the event of congestion or shortages, but noted that the Commission would not express an opinion at this time and would let the Board decide this policy matter. Commissioner Nelson then invited Dan Jones with Potomac Economics, the Independent Market Monitor, to comment.

Mr. D. Jones of Potomac Economics, the Independent Market Monitor (IMM), spoke to transmission by stating there is analysis in the materials that illustrates the theories and added that those theories have been in place throughout the market trials. He continued that they performed well and reached the balance that Mr. Dumas described. Mr. D. Jones noted that some of the guidance was drawn from other markets that have this experience and were well-developed. He mentioned that he felt comfortable with the shadow price cap values.

With respect to the power balance, Mr. D. Jones noted that for Go-Live, the current offer cap would go as high as \$2,250 per megawatt-hour (MWh), which is the offer cap in the Commission Rules until 60 days after Go-Live, at which time it would change to \$3,000 per MWh. He added that the IMM views the power balance as conforming to the current Commission Rules for energy-only market design and the offer caps. Mr. D. Jones clarified that if the offer caps change,



as far as 45 days into the market and is at \$180, then the power balance penalty is much higher to allow shortages to be priced in the market when they occur and with the offer cap being lower. He added that those are not driven by offers, they are driven by system conditions. Mr. D. Jones explained that this was the balance and part of the guardrails that are put in place and added that the IMM is comfortable with that. He continued that the LFC test results on November 12, 2010, illustrated that the prices that were consistent with the operational conditions and part of the whole expectation of Nodal. Mr. D. Jones concluded that these are real scenarios so he believes it allows this to occur and would be a policy call. He noted that the question to be posed would be how strong you want that shortage pricing to be reflected during the start-up phase, reiterating that he thought the guardrails were in place to address the offer behavior to be consistent with the rules and expressed the IMM's comfort with this.

Commissioner Nelson noted that if the price is not an anomaly and is caused by a real situation on the grid, whether ERCOT lets the mechanism work on December 1, 2010, or ERCOT lets it work two months later, she felt it was going to work the same. Mr. Cleary committed to monitor these issues on an ongoing basis.

**Mr. Helton moved to approve TAC's recommendation to approve the ERCOT business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch. Mr. Bivens seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

#### **TAC and TAC Subcommittee Structure Review (Agenda Item 6d)**

Mr. B. Jones reported on the TAC Procedural and Structure Review as discussed during the H.R. and Governance (HR&G) Committee meeting on the previous day. Mr. Dalton reported that the HR&G Committee members voiced some concern with TAC having a Consent Agenda due to the potential for adversely affecting the decision-making ability of the Board or placing a needless burden on TAC for the repeated review of Protocol Revision Requests. Mr. Dalton noted that the HR&G Committee members thought that TAC members should have an opportunity to remove items from the Consent Agenda for discussion.

#### **Emerging Technologies Integration Plan (ETIP) (Agenda Item 6e)**

Mr. B. Jones reported that the ETIP is a living document provided for informational purposes which will be continually updated and include resolved issues. Mark Bruce of Stratus Energy Group presented an overview of the ETIP to the Board members.

Chairman Gent requested that Mr. Bruce make the overview presentation available on the ERCOT website. Chairman Gent commended Mr. Bruce and his fellow contributors on the ETIP report. Chairman Gent noted the importance of TAC bringing ETIP recommendations to the Board. With regard to the TAC recommendations requiring additional ERCOT staff support, Mr. Doggett committed ERCOT to work with TAC on a tracking system and to develop more information on the envisioned level of stakeholder support for the Board's future consideration. Mr. B. Jones agreed to bring the Board more information on these topics at a future Board meeting. Mr. Bruce and Mr. B. Jones responded to the Board members' questions on the ETIP.



### **Third Quarter 2010 Texas Renewables Integration Plan (TRIP) Report to the Public Utility Commission of Texas (Agenda Item 6f)**

Mr. B. Jones provided an overview of the Third Quarter 2010 TRIP Report as requested in the Commission's final order in the Competitive Renewable Energy Zones (CREZ) designation docket and responded to the Board members' questions on this topic. Chairman Gent commended Mr. B. Jones and TAC on this Report.

### **2010 Loss of Load Events (LOLEV) Study (Agenda Item 7)**

Mr. B. Jones provided background on TAC involvement on the Loss-of-Load Expectation (LOLE) Reserve Margin Target Study. Dan Woodfin, ERCOT Director of System Planning, presented the LOLEV Study to the Board. The Board members and Mr. Woodfin discussed the LOLEV Study recommendations at length.

Mr. Dalton reminded the Board that he was elected by the Consumer Segment (Industrial) to the Board and disclosed that he is the Chairman of the Texas Industrial Energy Consumers (TIEC). He added that he has confirmed with Mr. Magness that there is no conflict to vote on matters in which TIEC comments.

At Chairman Gent's invitation, Katie Coleman of Andrews & Kurth provided comments on behalf of TIEC. Chairman Gent reminded Ms. Coleman of the Board materials submission deadline and requested that Ms. Coleman submit TIEC's comments to ERCOT in writing for its record, which she agreed to do.

The Board members and Mr. Woodfin continued their extensive discussions.

**Ms. Ryall moved to approve the TAC recommendation to approve the use of 13.75% as the Target Reserve Margin for ERCOT, and the use of 8.7% as the capacity value of wind, to be used for reserve margin reporting purposes. Mr. Karnei seconded the motion. The Board's discussion continued. Mr. Crowder made a friendly amendment to modify the motion to add an instruction to ERCOT to provide an LOLEV study to the Board no later than two years from the meeting date, which was accepted by Ms. Ryall and Mr. Karnei. The Board's discussion continued. The motion passed by voice vote with three opposed (Mr. Brown, Mr. Crowder and Mr. Fehrenbach) and no abstentions.**

### **Lunch (Agenda Item 8)**

The meeting adjourned for lunch at approximately 12:58 p.m. and reconvened at approximately 1:47 p.m.

### **Operating Reports (Continued) – Nodal Program Update (Agenda Item 5f)**

Mr. Cleary and Kenneth Ragsdale, ERCOT Principal of Market Design and Analysis, provided the Nodal Program Update and discussed the Program Status. Mr. Ragsdale reviewed the



Cutover Update, the 24-Hour Load Frequency Control (LFC) Test Update for the October Test (October 27-28, 2010) and the November Test (November 11-12, 2010), and the Nodal Defect Delivery and Issues Update. Mr. Ragsdale noted that he would send the updated Defect Summary Slides and the November 24-Hour LFC Test highlights to the Board. Troy Anderson, ERCOT Manager of Enterprise Project Portfolio Management, provided the Prioritization Process Overview. Mike Petterson, ERCOT Controller, provided the Monthly Financial Review. Mr. Cleary, Mr. Ragsdale and Mr. Doggett responded to Board members' questions on these topics.

### **2011 Base Operating Budget and Project Priority List (Agenda Item 9a)**

Mr. Karnei, Finance & Audit (F&A) Committee Chairman, asked Mr. Magness to discuss whether the Project Priority List (PPL) should be included as part of the Board Resolution on the 2011 Base Operating Budget (Budget). Mr. Magness explained that the proposed Board Resolution sought approval of the operating budget only and requested that the Board disregard the reference to the PPL in the Agenda Item. Mr. Karnei reported that the F&A Committee considered the Budget at its earlier meeting and that the proposed Budget would keep the System Administration Fee flat for the next year and would use \$25.2 million of the Board Discretionary Fund.

**Mr. Espinosa moved: to adopt ERCOT's proposed 2011 Base Operating Budget, which includes approximately \$118.4 million for operating expenses, \$41.9 million for project spending, and \$29.7 million for debt service obligations; to approve the utilization favorable financial variance realized in 2010 to reduce 2011 revenue requirements; to approve the recommended continuation of the ERCOT System Administration Fee of \$0.4171 per megawatt-hour; and to approve the recommended ERCOT Fee Schedule as presented in the Board materials. Mr. Karnei seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

Mr. Crowder commended Mr. Petterson, ERCOT management and ERCOT staff on their extensive work on the Budget preparation.

### **Finance & Audit (F&A) Committee Report (Agenda Item 9)**

Mr. Karnei noted that the F&A Committee met on the prior day and reported on various items considered at its meeting.

### **Financial Auditor Selection (Agenda Item 17)**

After consultation with Mr. Magness, Mr. Karnei requested the move of the Financial Auditor Selection agenda item from the Executive Session to the General Session of the meeting. Mr. Karnei briefly updated the Board members on the F&A Committee's recommendation for selection of Ernst & Young as the Financial Auditors for the 2010 ERCOT Financial Statements.

**Mr. Karnei moved to approve the selection of Ernst & Young as the qualified public accounting firm to audit ERCOT's financial statements at December 31, 2010, and the year**



then ending. Mr. Espinosa seconded the motion. The motion passed by unanimous voice vote with no abstentions.

Mr. Karnei reported that the F&A Committee also approved the estimated fees for Ernst & Young and confirmed Ernst & Young's independence and quality control procedures.

**Approval of Investment Corporate Standard (Agenda Item 9b)**

Mr. Karnei reported on the F&A Committee's recommended modifications to the Investment Corporate Standard.

**Mr. Karnei moved to approve the F&A Committee's recommended modifications to the Investment Corporate Standard. Mr. Espinosa seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

**Approval of Financial Corporate Standard (Agenda Item 9c)**

Mr. Karnei reported on the F&A Committee's recommended modifications to the Financial Corporate Standard.

**Mr. Karnei moved to approve the F&A Committee's recommended modifications to the Financial Corporate Standard. Mr. Crowder seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

**Addition of Revision Process to ERCOT Creditworthiness Standards (Agenda Item 9d)**

Mr. Karnei reported on the F&A Committee's recommended addition of a revision process to ERCOT's Creditworthiness Standards.

**Mr. Karnei moved to approve the F&A Committee's recommended addition of a revision process to ERCOT's Creditworthiness Standards. Mr. Bivens seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

**Human Resources & Governance (HR&G) Committee Report; and Revision of Board Policies and Procedures (Agenda Items 10 and 10a)**

Mr. Dalton, HR&G Committee Chairman, reported that the HR&G Committee met on the prior day and reported on various items considered at its meeting.

Mr. Dalton reported that, based on its survey of some Independent System Operators and Regional Transmission Organizations, the HR&G Committee was deferring any action to revise the Board Policies and Procedures, at this time, with regard to the reimbursement of expenses for Unaffiliated Directors' creation of blind trusts or divestiture of stock in the fulfillment of their independence requirements.



### **Other Business (Agenda Item 11) – Continued**

No other business was discussed at this time.

### **Future Agenda Items (Agenda Item 12)**

Chairman Gent called for any additions to the Future Agenda Items, but none were received.

### **Executive Session (Agenda Items 13-16 and 18- 19)**

Chairman Gent adjourned the Executive Session at approximately 2:50 p.m. until approximately 5:08 p.m.

### **Discussion regarding Board Communications Plan for Year-End 2010 (Agenda Item 21)**

Mr. Magness reviewed a Board Communication Plan for the remainder of 2010 and responded to Board members' questions on this topic.

### **Vote on Matters from Executive Session (Agenda Item 20)**

**Mr. Helton moved to approve four voting items related to Contract Matters considered in Executive Session by the Board identified as Agenda Items 18a, 18b, 18c and 18d in the Board materials. Mr. Dalton seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

**Mr. Doggett moved to approve five voting items related to IT Asset Replacement Strategy considered in Executive Session by the Board identified as Agenda Items 19a, 19b, 19c, 19d and 19e. Mr. Helton seconded the motion. The motion passed by unanimous voice vote with no abstentions.**

### **Adjournment (Agenda Item 21)**

Chairman Gent adjourned the meeting at approximately 5:12 p.m.

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

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Bill Magness  
Corporate Secretary