



Date: August 10, 2010
To: ERCOT Board of Directors
From: Brad Jones, Technical Advisory Committee (TAC) Chair
Subject: Nodal Protocol Revision Requests (NPRRs)

Issue for the ERCOT Board of Directors

ERCOT Board of Directors (ERCOT Board) Meeting Date: August 17, 2010

Agenda Item No.: 09b

Issue:

Consideration of the following NPRRs:

- NPRR091 – Scarcity Pricing and Mitigated Offer Cap During the Period Commencing on the Nodal Market Implementation Date and Continuing for a Total of 45 Days
- NPRR218 – Resolution of Alignment Item A71 - Add Protocol Description of the Power Balance Penalty Factor used in the Security Constrained Economic Dispatch (SCED)
- NPRR228 – Resolution of Alignment Items A2, A80, A83 and A93 – As-Built Treatment and Settlement of Combined Cycle Generation Resources in ERCOT Market Systems
- NPRR233 – Clarifying Method of Enforcing Congestion Revenue Rights (CRR) Auction Limitation on Market Submissions
- NPRR236 – Resolution of Alignment Item A83 partially, A86, A87 partially, A88 partially, and A142 – Clarify Default Actions for Missing Data and Range of Valid Data Entries for Energy Offers
- NPRR237 – Resolution of Alignment Items A22, A143, A148, A153, A160 and A169 – Clarification of North American Electric Reliability Corporation (NERC) Reliability Standards and Market Information System (MIS) Posting Requirements
- NPRR242 – Synchronization of Nodal Protocols with (Protocol Revision Request) PRR792
- NPRR245 – Protocol Synchronization and As-Built Clarification for Reliability Unit Commitment (RUC) Shortfall Calculation

Background/History:

Unless otherwise noted: (i) all Market Segments were present for each vote and (ii) ERCOT Credit Staff and the Credit Work Group (CWG) have reviewed the revision request and do not believe it requires changes to credit monitoring activity or the calculation of liability.

- **NPRR091 – Scarcity Pricing and Mitigated Offer Cap During the Period Commencing on the Nodal Market Implementation Date and Continuing for a Total of Forty-five (45) Days [Transition Plan Task Force (TPTF)].**
Proposed Effective Date: Upon Texas Nodal Market Implementation.
Chief Executive Officer (CEO) Determination: No opinion on whether or not NPRR091 is necessary prior to the Texas Nodal Market Implementation Date.
ERCOT Impact Analysis: Estimated cost, in the \$50,000 to \$100,000 range; temporary staffing impacts, to develop functionality; ERCOT Market Management System (MMS) and MIS will be modified for implementation of NPRR091; and no significant additional high-

level impacts to business functions or grid operations and practices are anticipated.

Revision Description: This NPRR adds a provision to Section 3.19, Constraint Competitiveness Tests, that all transmission constraints are treated as non-competitive constraints during an initial thirty (30) Operating Day period, beginning with the Texas Nodal Market Implementation Date; and a new Section 4.4.11.2, Scarcity Pricing and Mitigated Offer Cap During Nodal Startup, which requires that the System-Wide Offer Cap (SWCAP) be set to the higher of \$180 or 18 mmBtu heat rate times the Fuel Index Price (FIP) during an initial forty-five (45) Operating Day period, beginning with the Texas Nodal Market Implementation Date. This new Section also establishes an Energy Offer Curve floor adjusted to -\$50 per Megawatt Hour (MWh).

Procedural History: NPRR091 was posted on December 5, 2007. On December 13, 2007, the Protocol Revision Subcommittee (PRS) unanimously voted to table NPRR091. On January 17, 2008, PRS voted to table NPRR091 until the February 21, 2008 PRS meeting. The motion passed with one (1) abstention from the Independent Retail Electric Provider (IREP) Market Segment. On February 21, 2008, PRS voted to set the values of the X at \$180 per MWh with a heat rate of 18 mmBtu per MWh, and establish an Energy Offer Curve floor of -\$50 per MWh. The motion passed by roll call vote. On March 20, 2008, PRS unanimously voted to table NPRR091 pending development of the final Impact Analysis. On May 22, 2008, PRS unanimously voted to table NPRR091 pending development of the final Impact Analysis. On July 17, 2008, PRS voted to endorse the Impact Analysis and PRS Recommendation Report for NPRR091 and forward the documents to TAC. There was one (1) opposing vote from the Consumer Market Segment and one (1) abstention from the Investor Owned Utility (IOU) Market Segment. On August 7, 2008, TAC voted to table NPRR091 until the TAC meeting following the establishment of a revised Texas Nodal Market Implementation Date. There were four (4) opposing votes from the Consumer Market Segment. On January 6, 2010, TAC voted to table NPRR091 for one (1) month. There was one (1) opposing vote from the IREP Market Segment. On February 4, 2010, the motion to recommend approval of NPRR091 as recommended by PRS in the July 17, 2008 PRS Report and as revised by TAC failed via roll call vote. TAC then voted to table NPRR091 for one (1) month. There was one (1) opposing vote from the IREP Market Segment. On March 4, 2010, TAC unanimously voted to table NPRR091 and request that the Wholesale Market Subcommittee (WMS) provide comments on the Options under consideration. On April 8, 2010, TAC unanimously voted to recommend approval of NPRR091 as recommended by PRS in the July 17, 2008 PRS Report and as amended by the March 29, 2010 WMS comments. TAC then unanimously voted to reconsider NPRR091. Upon reconsideration, TAC unanimously voted to refer NPRR091 to WMS. On June 3, 2010, TAC unanimously voted to recommend approval of NPRR091 as amended by the May 26, 2010 WMS comments. On June 15, 2010, the ERCOT Board tabled NPRR091.

- **NPRR218 – Resolution of Alignment Item A71 - Add Protocol Description of the Power Balance Penalty Factor used in the SCED [ERCOT].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

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; and no impacts to

ERCOT grid operations and practices.

Revision Description: This NPRR will add a description of the power balance penalty factor to the Nodal Protocol sections that describe the implemented constraint set utilized in the SCED optimization.

Procedural History: NPRR218 was posted on March 23, 2010. On April 22, 2010, PRS unanimously voted to table NPRR218. On May 20, 2010, PRS unanimously voted to refer NPRR218 to WMS and the Nodal Advisory Task Force (NATF). On June 17, 2010, PRS voted to recommend approval of NPRR218 as amended by the June 16, 2010 WMS comments as revised by PRS. There was one (1) abstention from the Consumer Market Segment. On July 22, 2010, PRS voted to endorse and forward the June 17, 2010 PRS Report and Impact Analysis for NPRR218 to TAC. There was one (1) abstention from the Consumer Market Segment. On August 5, 2010, TAC unanimously voted to recommend approval of NPRR218 as recommended by PRS in the July 22, 2010 PRS Report.

- **NPRR228 – Resolution of Alignment Items A2, A80, A83 and A93 – As-Built Treatment and Settlement of Combined Cycle Generation Resources in ERCOT Market Systems [ERCOT].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

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; and no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR revises the Nodal Protocol language to include a description of the treatment and Settlement of Combined Cycle Generation Resources in the ERCOT Day-Ahead, reliability and Real-Time systems.

Procedural History: NPRR228 was posted on April 23, 2010. On May 20, 2010, PRS unanimously voted to table NPRR228 for one (1) month. On June 17, 2010, PRS unanimously voted to recommend approval of NPRR228 as amended by the May 18, 2010 ERCOT comments as revised by PRS. On July 22, 2010, PRS voted to endorse and forward the June 17, 2010 PRS Report and Impact Analysis for NPRR228 to TAC. There was one (1) abstention from the Consumer Market Segment. On August 5, 2010, TAC unanimously voted to recommend approval of NPRR228 as recommended by PRS in the July 22, 2010 PRS Report and as revised by TAC.

- **NPRR233 – Clarifying Method of Enforcing CRR Auction Limitation on Market Submissions [ERCOT].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

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

ERCOT Impact Analysis: Estimated cost, in the \$50,000 to \$100,000 range; no ERCOT staffing impacts; minor modifications will be made to the CRR Application to change CRR allocation methods; no impacts to ERCOT business functions; and no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR clarifies the procedures and system configurations that will be utilized to ensure market transactions for CRR Auctions do not exceed the system capabilities.

Procedural History: NPRR233 was posted on May 13, 2010. On May 20, 2010, PRS unanimously voted to table NPRR233 for one (1) month. On June 17, 2010, PRS unanimously voted to recommend approval of NPRR233 as amended by the May 19, 2010 Luminant comments as revised by PRS. On July 22, 2010, PRS voted to endorse and forward the June 16, 2010 PRS Report and Impact Analysis for NPRR233 to TAC. There was one (1) abstention from the Consumer Market Segment. On August 5, 2010, TAC unanimously voted to recommend approval of NPRR233 as recommended by PRS in the July 22, 2010 PRS Report.

- **NPRR236 – Resolution of Alignment Item A83 partially, A86, A87 partially, A88 partially, and A142 – Clarify Default Actions for Missing Data and Range of Valid Data Entries for Energy Offers [ERCOT].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

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; and no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR clarifies system actions if the Qualified Scheduling Entity (QSE) cancels a Resource Parameter submission, if a Current Operating Plan (COP) is not submitted for any hour, and/or if a conflict in Resource Status is encountered. The NPRR also clarifies that in each hour only one (1) Combined Cycle Generation Resource in a Combined Cycle Train may be assigned one (1) of the On-Line Resource Status codes.

Procedural History: NPRR236 was posted on May 13, 2010. On May 20, 2010, PRS unanimously voted to table NPRR236. On June 17, 2010, PRS unanimously voted to recommend approval of NPRR236 as submitted. On July 22, 2010, PRS unanimously voted to endorse and forward the June 17, 2010 PRS Report as revised by PRS and Impact Analysis for NPRR236 to TAC. On August 5, 2010, TAC unanimously voted to recommend approval of NPRR236 as recommended by PRS in the July 22, 2010 PRS Report.

- **NPRR237 – Resolution of Alignment Items A22, A143, A148, A153, A160 and A169 – Clarification of NERC Reliability Standards and MIS Posting Requirements [ERCOT].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

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; and no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR resolves Alignment Items A22, A143, A148, A153, A160 and A169 by clarifying the role of NERC Reliability Standards in relation to Protocols and several MIS posting requirements.

Procedural History: NPRR237 was posted on May 13, 2010. On May 20, 2010, PRS unanimously voted to table NPRR237 for one (1) month. On June 17, 2010, PRS voted to recommend approval of NPRR237 as amended by the June 8, 2010 CenterPoint comments. There was one (1) abstention from the IOU Market Segment. On July 22, 2010, PRS

unanimously voted to endorse and forward the June 17, 2010 PRS Report as amended by the July 9, 2010 ERCOT comments and Impact Analysis for NPRR237 to TAC. On August 5, 2010, TAC unanimously voted to recommend approval of NPRR237 as recommended by PRS in the July 22, 2010 PRS Report and as revised by TAC.

- **NPRR242 – Synchronization of Nodal Protocols with PRR792 [ERCOT].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

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; and no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR synchronizes the Nodal Protocols with PRR792, Revised Renewable Portfolio Standards Allocation Process, Pursuant to P.U.C. SUBST. R. 25.173, approved by the ERCOT Board on January 20, 2009.

Procedural History: NPRR242 was posted on June 2, 2010. On June 17, 2010, PRS voted to recommend approval of NPRR242 as submitted. There was one (1) abstention from the IREP Market Segment. On July 22, 2010, PRS voted to endorse and forward the June 17, 2010 PRS Report and Impact Analysis for NPRR242 to TAC. There was one (1) abstention from the Consumer Market Segment. On August 5, 2010, TAC unanimously voted to recommend approval of NPRR242 as recommended by PRS in the July 22, 2010 PRS Report.

- **NPRR245 – Protocol Synchronization and As-Built Clarification for RUC Shortfall Calculation [ERCOT].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

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; and no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR proposes revisions to paragraphs (9) and (10) of Section 5.7.4.1.1, Capacity Shortfall Ratio Share, to conform these paragraphs with paragraph (1), and to clarify how to perform Settlements pursuant to paragraph (1).

Procedural History: NPRR245 was posted on June 7, 2010. On June 17, 2010, PRS voted to recommend approval of NPRR245 as submitted. There were two (2) abstentions from the Consumer and Independent Generator Market Segments. On July 22, 2010, PRS voted to endorse and forward the June 17, 2010 PRS Report and Impact Analysis for NPRR245 to TAC. There was one (1) abstention from the Consumer Market Segment. On August 5, 2010, TAC unanimously voted to recommend approval of NPRR245 as recommended by PRS in the July 22, 2010 PRS Report.

The TAC Reports, Impact Analyses, and CEO Revision Request Reviews for these NPRRs are included in the ERCOT Board meeting materials. In addition, these NPRRs and supporting materials are posted on the ERCOT website at the following link: <http://nodal.ercot.com/protocols/npr/index.html>.

**Key Factors Influencing Issue:**

PRS met, discussed the issues, and submitted reports to TAC regarding the NPRRs described herein. TAC considered the issues and voted to take action on the NPRRs as described above.

Alternatives:

1. Approve the TAC recommendation on NPRRs 091, 218, 228, 233, 236, 237, 242, and/or 245, as described above or as modified by the ERCOT Board;
2. Reject the TAC recommendation on NPRRs 091, 218, 228, 233, 236, 237, 242, and/or 245;
3. Defer decision on the TAC recommendation on NPRRs 091, 218, 228, 233, 236, 237, 242, and/or 245; or
4. Remand NPRRs 091, 218, 228, 233, 236, 237, 242, and/or 245 to TAC with instructions.

Conclusion/Recommendation:

As more specifically described above, TAC recommends that the ERCOT Board approve NPRRs 091, 218, 228, 233, 236, 237, 242, and/or 245 as described herein.



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 Requests (NPRRs):

- NPRR091 – Scarcity Pricing and Mitigated Offer Cap During the Period Commencing on the Nodal Market Implementation Date and Continuing for a Total of 45 Days
- NPRR218 – Resolution of Alignment Item A71 - Add Protocol Description of the Power Balance Penalty Factor used in the Security Constrained Economic Dispatch (SCED)
- NPRR228 – Resolution of Alignment Items A2, A80, A83 and A93 - As-Built Treatment and Settlement of Combined Cycle Generation Resources in ERCOT Market Systems
- NPRR233 – Clarifying Method of Enforcing Congestion Revenue Rights (CRR) Auction Limitation on Market Submissions
- NPRR236 – Resolution of Alignment Item A83 partially, A86, A87 partially, A88 partially, and A142 - Clarify Default Actions for Missing Data and Range of Valid Data Entries for Energy Offers
- NPRR237 – Resolution of Alignment Items A22, A143, A148, A153, A160 and A169 – Clarification of North American Electric Reliability Corporation (NERC) Reliability Standards and Market Information System (MIS) Posting Requirements
- NPRR242 – Synchronization of Nodal Protocols with Protocol Revision Request (PRR) 792
- NPRR245 – Protocol Synchronization and As-Built Clarification for Reliability Unit Commitment (RUC) Shortfall Calculation

THEREFORE be it RESOLVED, that the ERCOT Board hereby approves NPRRs 091, 218, 228, 233, 236, 237, 242, and 245.

CORPORATE SECRETARY'S CERTIFICATE

I, Bill Magness, Interim Corporate Secretary of ERCOT, do hereby certify that, at its August 17, 2010 meeting, the ERCOT Board of Directors passed a motion approving the above Resolution by _____.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of August, 2010.

Bill Magness
Interim Corporate Secretary