



Date: February 9, 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: February 16, 2010

Agenda Item No.: 11a

Issue:

Consideration of the following NPRRs:

- NPRR169 – Clarify the Calculation and Posting of Locational Marginal Prices (LMPs) for the Load Zone and LMPs for each Hub
- NPRR199 – Shift Factors by Resource Node
- NPRR200 – Market Management System (MMS) Direct Current Tie (DC Tie) Schedule Data Resource
- NPRR201 – Calculation of Transmission and Distribution Losses
- NPRR206 – Nodal Market Day-Ahead Market Credit Requirements

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.

- **NPRR169 – Clarify the Calculation and Posting of LMPs for the Load Zone and LMPs for each Hub [TPTF].**

Proposed Effective Date: Post Texas Nodal Market Implementation Date.

CEO Determination: Not necessary prior to the Texas Nodal Market Implementation Date.

ERCOT Impact Analysis: To be determined – Due to “Not Needed for Go-Live” designation by the ERCOT CEO, the Impact Analysis for this item will be conducted at a future date.

Revision Description: This NPRR Clarifies language that specifies the calculation and posting of LMPs for the Load Zone and “LMPs for each Hub.”

Procedural History: NPRR169 was posted on December 16, 2008. On December 18, 2008, the Protocol Revision Subcommittee (PRS) unanimously voted to waive notice to consider NPRR169. Then, PRS unanimously voted to recommend approval of NPRR169 as amended by the December 16, 2008 CPS Energy comments and as revised by PRS. The Independent Generator Market Segment was not present for the votes. On January 22, 2009, PRS unanimously voted to table NPRR169. On November 19, 2009, PRS unanimously voted to endorse and forward the December 18, 2008 PRS Recommendation Report for NPRR169 to TAC with a priority of High/Medium and rank of 1. On December 3, 2009, TAC unanimously voted to change the priority for NPRR169 to High and to table NPRR169 for one (1) month. On January 6, 2010, TAC unanimously voted to recommend approval of



NPRR169 as recommended by PRS in the November 19, 2009 PRS Recommendation Report and with a priority of High. On January 19, 2010, the ERCOT Board tabled NPRR169 for one (1) month.

- **NPRR199 – Shift Factors by Resource Node [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; no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR adds the reporting requirement for ERCOT to provide Shift Factors by Resource Node.

Procedural History: NPRR199 was posted on November 20, 2009. On December 17, 2009, PRS unanimously voted to recommend approval of NPRR199 as submitted. On January 21, 2010, PRS unanimously voted to endorse and forward the December 17, 2009 PRS Recommendation Report and Impact Analysis for NPRR199 to TAC. On February 4, 2010, TAC unanimously voted to recommend approval of NPRR199 as recommended by PRS in the January 21, 2010 PRS Report.

- **NPRR200 – MMS DC Tie Schedule Data Source [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 (costs incurred by removing functionality are recovered in savings from not having to further test); no ERCOT staffing impacts; impacts to the MMS; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR changes the source of DC Tie Schedules for use by the MMS to an associated Qualified Scheduling Entity (QSE) submitted Electronic Tag (e-Tag). This NPRR also revises the definition of DC Tie Schedule and adds a new acronym to Section 2, Definitions and Acronyms.

Procedural History: NPRR200 was posted on November 30, 2009. On December 17, 2009, PRS unanimously voted to recommend approval of NPRR200 as submitted. On January 21, 2010, PRS unanimously voted to endorse and forward the December 17, 2009 PRS Recommendation Report and Impact Analysis for NPRR200 to TAC. On February 4, 2010, TAC unanimously voted to recommend approval of NPRR200 as recommended by PRS in the January 21, 2010 PRS Report.

- **NPRR201 – Calculation of Transmission and Distribution Losses [ERCOT].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

CEO Determination: No opinion on whether or not NPRR201 is necessary prior to the Texas Nodal Market Implementation Date.

ERCOT Impact Analysis: No budgetary impact; no ERCOT staffing impacts (however, if NPRR201 is not approved, there is an estimated 1.4 full-time equivalent increase to perform calculations as currently documented in Nodal Protocols.); no impacts to ERCOT computer



systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR revises the Nodal Protocol language to align with the current practice for calculation of Transmission Losses and Distribution Losses on a seasonal versus monthly basis.

Procedural History: NPRR201 was posted on December 3, 2009. On December 17, 2009, PRS unanimously voted to recommend approval of NPRR201 as submitted. On January 21, 2010, PRS unanimously voted to endorse and forward the 12/17/09 PRS Recommendation Report and Impact Analysis for NPRR201 to TAC. On February 4, 2010, TAC unanimously voted to recommend approval of NPRR201 as recommended by PRS in the January 21, 2010 PRS Report and as revised by TAC.

- **NPRR206 – Nodal Market Day-Ahead Market Credit Requirements [Luminant].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

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

ERCOT Impact Analysis: Preliminary Impact Analysis review resulted in budgetary impact of \$100,000 to \$250,000; ERCOT staffing increase of 0.25 full-time equivalents to accommodate resulting revised business processes; impacts to ERCOT MMS and Integration Testing; existing business processes will be modified to accommodate this NPRR; no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR revises the Nodal collateral requirements by QSEs who participate in the Day-Ahead Market (DAM). The change will potentially reduce the collateral burden for QSEs' bids while sufficiently collateralizing ERCOT. The revisions are based on discussions held at the Market Credit Working Group (MCWG). The proposed NPRR language has been developed for implementation by the Texas Nodal Market Implementation Date (December 2010). Additional changes to further improve Nodal collateralization may be proposed in the future, some of which may require Nodal system changes. Revisions requiring significant nodal system changes following this NPRR are not expected to be implemented by the December 2010 Texas Nodal Market Implementation Date.

Procedural History: NPRR206 was posted on January 20, 2010. On January 26, 2010, PRS voted to recommend approval of NPRR206 as amended by the January 26, 2010 Reliant Energy Services comments and as revised by PRS and to forward the NPRR to TAC. There was one (1) opposing vote from the Consumer Market Segment. On February 4, 2010, TAC voted via roll call vote to recommend approval of NPRR206 as amended by the February 1, 2010 Luminant comments and as revised by TAC with direction to the MCWG to provide a proposal to TAC for a conservative nodal market start paradigm for the first sixty (60) days of DAM operation and to further define the "e" variables. Credit review is pending.

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:

The 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 169, 199, 200, 201, and/or 206 as described above or as modified by the ERCOT Board;
2. Reject the TAC recommendation on NPRRs 169, 199, 200, 201, and/or 206;
3. Defer decision on the TAC recommendation on NPRRs 169, 199, 200, 201, and/or 206; or
4. Remand NPRRs 169, 199, 200, 201, and/or 206 to TAC with instructions.

Conclusion/Recommendation:

As more specifically described above, TAC recommends that the ERCOT Board approve NPRRs 169, 199, 200, 201, and/or 206 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):

- NPRR169 – Clarify the Calculation and Posting of Locational Marginal Prices (LMPs) for the Load Zone and LMPs for each Hub
- NPRR199 – Shift Factors by Resource Node
- NPRR200 – Market Management System (MMS) Direct Current Tie (DC Tie) Schedule Data Resource
- NPRR201 – Calculation of Transmission and Distribution Losses
- NPRR206 – Nodal Market Day-Ahead Market Credit Requirements

THEREFORE be it RESOLVED, that the ERCOT Board hereby approves NPRRs 169, 199, 200, 201, and 206.

CORPORATE SECRETARY'S CERTIFICATE

I, Michael G. Grable, Corporate Secretary of ERCOT, do hereby certify that, at its February 16, 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 February, 2010.

Michael G. Grable
Corporate Secretary