



Date: March 16, 2010
To: 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: March 23, 2010

Agenda Item No.: 13b

Issue:

Consideration of the following NPRRs:

- NPRR156 – Transparency for power system stabilizer (PSS) and Full Interconnection Studies
- NPRR169 – Clarify the Calculation and Posting of Locational Marginal Prices (LMPs) for the Load Zone and LMPs for each Hub
- NPRR198 – Load Used in Reliability Must Run (RMR) Studies
- NPRR203 – Amend Telemetry Bus Accuracy Requirements
- NPRR204 – Update Generic Startup Cost for Reciprocating Engines

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.

- **NPRR156 – Transparency for PSS and Full Interconnection Studies [Public Service Enterprise Group, Incorporated - PSEG Texas].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

CEO Determination: No opinion on whether or not NPRR156 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; minor business process impacts – ERCOT will continue to periodically update and post a spreadsheet with PSS status; no impacts to ERCOT grid operations and practices.

Revision Description: This NPRR proposes updates to Section One (1), Overview, to provide transparency to status of PSS equipment and interconnection requests.

Procedural History: NPRR156 was posted on September 19, 2008. On October 23, 2008, the Protocol Revisions Subcommittee (PRS) unanimously voted to table NPRR156. The Cooperative Market Segment was not present for the vote. On November 20, 2008, PRS unanimously voted to table NPRR156. On December 18, 2008, PRS unanimously voted to table NPRR156 until the January 22, 2009 PRS meeting. The Independent Generator Market Segment was not present for the vote. On January 22, 2009, PRS voted to recommend approval of NPRR156 as amended by the December 11, 2008 PSEG comments. There were three (3) abstentions from the Consumer, Independent Generator and Independent Power Marketer (IPM) Market Segments. On April 23, 2009, PRS



unanimously voted to recommend approval of NPRR156 as amended by the April 22, 2009 PSEG Texas comments. On May 20, 2009, PRS unanimously voted to table NPRR156. On November 19, 2009, PRS unanimously voted to table NPRR156. On December 17, 2009, PRS unanimously voted to table NPRR156. On January 21, 2010, PRS unanimously voted to table NPRR156. On February 18, 2010, PRS unanimously voted to endorse and forward the April 23, 2009 PRS Recommendation Report as amended by the February 11, 2010 Luminant comments and as revised by PRS to TAC and to recommend a priority of Medium. On March 4, 2010, TAC voted to recommend approval of NPRR156 as amended by the March 4, 2010 ERCOT comments, with the recognition that ERCOT will continue with Option Three (3), Manual Interim Option (described in the March 4, 2010 ERCOT comments), to fulfill the requirement of item seven (7) of Section 3.15.3, QSE Responsibilities Related to Voltage Support, until Option Two (2), Include PSS Status Information in the RARF, can be implemented to automate the solution. There was one (1) opposing vote from the Independent Generator Market Segment.

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

Proposed Effective Date: Upon Texas Nodal Market Implementation.

CEO Determination: No opinion on whether or not NPRR169 is necessary prior to the Texas Nodal Market Implementation Date.

ERCOT Impact Analysis: Less than fifty thousand dollars (\$50K); no additional full time equivalents (FTEs) needed; impacts to Market Management System (MMS), Integration Testing (INT); Market Information System (MIS), and Current Day Reports (CDR); no impacts to ERCOT grid operations and practices.

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, 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 one (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. On February 16, 2010, the ERCOT Board remanded NPRR169 to TAC. On March 4, 2010, TAC unanimously voted to recommend approval of NPRR169 as amended by the March 2, 2010 NATF comments and as revised by TAC.

- **NPRR198 – Load Used in RMR Studies [PSEG TX].**

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 would provide guidance to ERCOT to use the peak Load forecast posted pursuant to P.U.C. SUBST. R. 25.505, Resource Adequacy in the Electric Reliability Council of Texas Power Region, for the next twelve (12) months for the RMR study. This aligns the Load forecast period with the RMR contract period and ensures that the Load forecast used for the analysis is one with a reasonable probability of occurrence.

Procedural History: NPRR198 was posted on November 10, 2009. On November 19, 2009, PRS unanimously voted to table NPRR198 for one (1) month. On December 17, 2009, PRS voted to recommend approval of NPRR198 as revised by the November 13, 2009 PSEG TX comments. There was one (1) abstention from the Investor Owned Utility (IOU) Market Segment. On January 21, 2010, PRS unanimously voted to endorse and forward the December 17, 2009 PRS Recommendation Report and Impact Analysis for NPRR198 to TAC. On February 4, 2010, TAC unanimously voted to revise the January 21, 2010 PRS Report and to table NPRR198 for one (1) month. On March 4, 2010, TAC unanimously voted to recommend approval of NPRR198 as recommended by TAC in the February 4, 2010 TAC Report.

- **NPRR203 – Amend Telemetry Bus Accuracy Requirements [NDSWG].**

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 proposes a new term, State Estimator Bus, and proposes language changes to Section 3.10.7.5.2, Continuous Telemetry of the Real-Time Measurements of Bus Load, Voltages, Tap Position, and Flows.

Procedural History: NPRR203 was posted on December 22, 2009. On January 21, 2010, PRS unanimously voted to recommend approval of NPRR203 as submitted. On February 18, 2010, PRS unanimously voted to endorse and forward the January 21, 2010 PRS Report and Impact Analysis for NPRR203 to TAC. On March 4, 2010, TAC unanimously voted to recommend approval of NPRR203 as recommended by PRS in the February 18, 2010 PRS Report.

- **NPRR204 – Update Generic Startup Cost for Reciprocating Engines [STEC].**

Proposed Effective Date: Upon Texas Nodal Market Implementation.

CEO Determination: No opinion on whether or not NPRR204 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 adds an Operations and Maintenance (O&M) cost for the “Reciprocating Engines” Resource category to the Resource Category Startup Offer Generic Cap determination.

Procedural History: NPRR204 was posted on December 22, 2009. On January 21, 2010, PRS voted to recommend approval of NPRR204 as submitted. There were two (2) opposing votes from the Independent Generator and the Consumer Market Segments and one (1) abstention from the IPM Market Segment. On February 18, 2010, PRS voted to endorse and forward the January 21, 2010 PRS Report and Impact Analysis for NPRR204 to TAC. There was one (1) opposing vote from the Consumer Market Segment. On March 4, 2010, TAC unanimously voted to recommend approval of NPRR204 as recommended by PRS in the February 18, 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:

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 156, 169, 198, 203 and/or 204 as described above or as modified by the ERCOT Board;
2. Reject the TAC recommendation on NPRRs 156, 169, 198, 203 and/or 204;
3. Defer decision on the TAC recommendation on NPRRs 156, 169, 198, 203 and/or 204; or
4. Remand NPRRs 156, 169, 198, 203 and/or 204 to TAC with instructions.

Conclusion/Recommendation:

As more specifically described above, TAC recommends that the ERCOT Board approve NPRRs 156, 169, 198, 203 and 204 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):

- NPRR156 – Transparency for PSS and Full Interconnection Studies
- NPRR169 – Clarify the Calculation and Posting of LMPs for the Load Zone and LMPs for each Hub
- NPRR198 – Load Used in RMR Studies
- NPRR203 – Amend Telemetry Bus Accuracy Requirements
- NPRR204 – Update Generic Startup Cost for Reciprocating Engines

THEREFORE be it RESOLVED, that the ERCOT Board hereby approves NPRRs 156, 169, 198, 203 and 204.

CORPORATE SECRETARY'S CERTIFICATE

I, Michael G. Grable, Corporate Secretary of ERCOT, do hereby certify that, at its March 23, 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 March, 2010.

Michael G. Grable
Corporate Secretary