Date: July 9, 2013
To: ERCOT Board of Directors
From: Kenan Ogelman, Technical Advisory Committee (TAC) Chair
Subject: Unopposed Nodal Protocol Revision Requests (NPRRs) and Planning Guide Revision Request (PGRR) Recommended by TAC for Approval

Issue for the ERCOT Board of Directors

ERCOT Board of Directors (ERCOT Board) Meeting Date: July 16, 2013
Agenda Item No.: 2.1

Issue:
Consideration of the following NPRRs and PGRR recommended by TAC for approval (with no opposing votes recorded):

- NPRR491, Updated Demand Response Information for ERCOT (*formerly "Updated Distributed Generation and Demand Response Information for ERCOT");*
- NPRR513, Removal of Nodal Implementation Surcharge;
- NPRR515, Day-Ahead Market Self-Commitment of Generation Resources;
- NPRR516, Change to Verifiable Cost Manual Revision Process;
- NPRR517, Revisions to the Telemetry Standards and State Estimator Standards Approval Process;
- NPRR522, Adjustment of Demand Response Performance for Distribution Losses (*formerly "Adjustment of Demand Response Performance for T&D Losses "*);
- NPRR523, Available Credit Limit (ACLC and/or ACLD) Calculations During Computer System Failures;
- NPRR525, Elimination of Three-Year Expiration for CRR Auction Revenue Distribution Methodology;
- NPRR526, Frequency of Audit on ERCOT Model;
- NPRR531, Clarification of IRR Forecasting Process Posting Requirement; and
- PGRR027, Analysis of Subsynchronous Resonance Studies in Transmission Studies

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

- ***NPRR491, Updated Demand Response Information for ERCOT (formerly "Updated Distributed Generation and Demand Response Information for ERCOT") [Edison Mission].***
  Revision Description: This Nodal Protocol Revision Request (NPRR) proposes to provide ERCOT and the market with needed information on demand response.
  Proposed Effective Date: Upon System Implementation – Priority 2013; Rank 875
  ERCOT Impact Analysis: $40k - $50k; 0.1 FTE staffing impact to be absorbed by current ERCOT Staff; impacts to Information System Master (ISM) and Market Information

System (MIS); ERCOT business functions will be updated; no impacts to ERCOT grid operations and practices.
ERCOT Opinion: ERCOT supports NPRR491 as it provides transparency and improves situational awareness.
TAC Decision: On 6/6/13, TAC unanimously voted to recommend approval of NPRR491 as recommended by PRS in the 5/16/13 PRS Report.

- ***NPRR513, Removal of Nodal Implementation Surcharge [ERCOT].***
  Revision Description: This NPRR removes references to the Nodal Implementation Surcharge (NIS).
  Proposed Effective Date: August 1, 2013
  ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.
  ERCOT Opinion: ERCOT supports approval of NPRR513.
  TAC Decision: On 5/2/13, TAC unanimously voted to recommend approval of NPRR513 as recommended by PRS in the 3/21/13 PRS Report.

- ***NPRR515, Day-Ahead Market Self-Commitment of Generation Resources [ERCOT].***
  Revision Description: This NPRR adds a Day-Ahead Market (DAM) mechanism for self-committing Generation Resources on an hourly basis; and makes a minor clarification to the description of the timing of the Simultaneous Feasibility Test (SFT) process.
  Proposed Effective Date: August 1, 2013 for Section 4.5.1; Upon System Implementation for Section 4.4.9.1 – Priority 2015; Rank 1200.
  ERCOT Impact Analysis: $260k - $285k; no impacts to ERCOT staffing; impacts to Market Management System (MMS); no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.
  ERCOT Opinion: ERCOT supports approval of NPRR515 as it provides more flexibility in the DAM commitment solution. As the qualitative benefits of added flexibility and potential increased liquidity are difficult to quantify, ERCOT agrees with prioritizing the standalone project low. By including it on the Project Priority List (PPL), ERCOT is able to maintain NPRR515 in its portfolio review. If the opportunity arises, ERCOT will request reprioritization to bundle with related changes to reduce the implementation cost.
  TAC Decision: On 6/6/13, TAC unanimously voted to recommend approval of NPRR515 as recommended by PRS in the 5/16/13 PRS Report.

- ***NPRR516, Change to Verifiable Cost Manual Revision Process [ERCOT].***
  Revision Description: This NPRR removes the Verifiable Cost Manual revision process from Section 5.6.1, Verifiable Costs. In conjunction with this NPRR, the Verifiable Cost Manual will be revised to incorporate a change control process analogous to the common process used in ERCOT Protocols and market guides.
  Proposed Effective Date: August 1, 2013
  ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no

impacts to ERCOT grid operations and practices.
ERCOT Opinion: ERCOT supports approval of NPRR516.
TAC Decision: On 5/2/13, TAC unanimously voted to recommend approval of NPRR516 as recommended by PRS in the 3/21/13 PRS Report.

- ***NPRR517, Revisions to the Telemetry Standards and State Estimator Standards Approval Process [ERCOT].***
  Revision Description: This NPRR revises the requirement for an annual update to an annual review and provides for updates on an as needed basis for both the Telemetry Standards and State Estimator Standards.
  Proposed Effective Date: August 1, 2013
  ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.
  ERCOT Opinion: ERCOT supports approval of NPRR517.
  TAC Decision: On 5/2/13, TAC unanimously voted to recommend approval of NPRR517 as recommended by PRS in the 4/18/13 PRS Report.

- ***NPRR522, Adjustment of Demand Response Performance for Distribution Losses (formerly "Adjustment of Demand Response Performance for T&D Losses") [DSWG].***
  Revision Description: This NPRR addresses inequality by adjusting the metered Load of demand response Resources for Distribution Losses.
  Proposed Effective Date: August 1, 2013 for all sections except paragraph (3)(a) of Section 3.14.3.3 which will be effective October 1, 2013
  ERCOT Impact Analysis: Less than $6k; no impacts to ERCOT staffing; minor system impacts absorbed by O&M budgets; ERCOT business functions will be updated; no impacts to ERCOT grid operations and practices.
  ERCOT Opinion: ERCOT supports NPRR522 as it allows applicable demand response Resources to adjust for Distribution Losses.
  TAC Decision: On 6/6/13, TAC voted to recommend approval of NPRR522 as recommended by PRS in the 5/16/13 PRS Report. There were two abstentions from the Independent Generator Market Segment.

- ***NPRR523, Available Credit Limit (ACLC and/or ACLD) Calculations During Computer System Failures [ERCOT].***
  Revision Description: This NPRR provides clarification to the process for generating credit exposure calculations (Available Credit Limit (ACL) for the Congestion Revenue Right (CRR) Auction (ACLC), and/or ACL for the DAM (ACLD)) when an ERCOT computer system failure occurs and for communication of such calculations to Counter-Parties.
  Proposed Effective Date: August 1, 2013
  ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; ERCOT business functions will be updated; no impacts to ERCOT grid operations and practices.

ERCOT Opinion: ERCOT supports approval of NPRR523.
TAC Decision: On 5/2/13, TAC unanimously voted to recommend approval of NPRR523 as recommended by PRS in the 4/18/13 PRS Report.

- ***NPRR525, Elimination of Three-Year Expiration for CRR Auction Revenue Distribution Methodology [ERCOT].***
  Revision Description: This NPRR will remove the December 1, 2013 deadline for reconsideration of the CRR Auction Revenue Distribution (CARD) method and allow the current methodology to become permanent.
  Proposed Effective Date: August 1, 2013
  ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.
  ERCOT Opinion: ERCOT supports approval of NPRR525.
  TAC Decision: On 5/2/13, TAC unanimously voted to recommend approval of NPRR525 as recommended by PRS in the 4/18/13 PRS Report.

- ***NPRR526, Frequency of Audit on ERCOT Model [ERCOT].***
  Revision Description: This NPRR revises the frequency of the audit on the ERCOT model from an annual audit to once every three years.
  Proposed Effective Date: August 1, 2013
  ERCOT Impact Analysis: No budgetary impact; 0.25 FTE savings across Network Modeling, Internal Audit and CRR departments; no impacts to ERCOT computer systems; ERCOT business functions will be updated; no impacts to ERCOT grid operations and practices.
  ERCOT Opinion: ERCOT supports approval of NPRR526.
  TAC Decision: On 5/2/13, TAC unanimously voted to recommend approval of NPRR526 as recommended by PRS in the 4/18/13 PRS Report.

- ***NPRR531, Clarification of IRR Forecasting Process Posting Requirement [ERCOT].***
  Revision Description: This NPRR clarifies that the procedures describing the forecasting process that ERCOT must publish on the MIS Public Area pursuant to Section 3.2.1 relate specifically to ERCOT's Intermittent Renewable Resource (IRR) forecasting process.
  Proposed Effective Date: August 1, 2013
  ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; ERCOT business functions will be updated; no impacts to ERCOT grid operations and practices.
  ERCOT Opinion: ERCOT supports approval of NPRR531.
  TAC Decision: On 6/6/13, TAC unanimously voted to recommend approval of NPRR531 as recommended by PRS in the 5/16/13 PRS Report.

- ***PGRR027, Analysis of Subsynchronous Resonance Studies in Transmission Studies [ERCOT].***
  Revision Description: This Planning Guide Revision Request (PGRR) describes how

ERCOT will act to protect the ERCOT Transmission Grid from Subsynchronous Resonance (SSR) oscillations since installation of multiple series compensated transmission lines has increased ERCOT's vulnerability to such oscillations.

Proposed Effective Date: August 1, 2013

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

ERCOT Opinion: ERCOT supports approval of PGRR027.

TAC Decision: On 5/2/13, TAC unanimously voted to recommend approval of PGRR027 as recommended by ROS in the 4/11/13 ROS Report. On 7/2/13, TAC filed comments to recommend approval of PGRR027 as amended by the 6/25/13 OWG comments. There was one abstention from the Independent Generator Market Segment.

The TAC Reports and Impact Analyses for these Revision Requests are included in the ERCOT Board meeting materials which can found at the following link:

http://www.ercot.com/calendar/2013/07/20130716-BOD

In addition, these Revision Requests and supporting materials are posted on the ERCOT website at the following links:

http://www.ercot.com/mktrules/nprotocols/nprr

http://www.ercot.com/mktrules/guides/planning/pgrr

Key Factors Influencing Issue:

The PRS met, discussed the issues, and submitted reports to TAC regarding NPRRs 491, 513, 515, 516, 517, 522, 523, 525, 526, and 531.

The ROS met, discussed the issues, and submitted a report to TAC regarding PGRR027.

TAC considered the issues and voted to take action on NPRRs 491, 513, 515, 516, 517, 522, 523, 525, 526, 531; and PGRR027 as described above.

Conclusion/Recommendation:

As more specifically described above, TAC recommends that the ERCOT Board approve NPRRs 491, 513, 515, 516, 517, 522, 523, 525, 526, 531; and PGRR027 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) and Planning Guide Revision Request (PGRR):

- NPRR491, Updated Demand Response Information for ERCOT (formerly "Updated Distributed Generation and Demand Response Information for ERCOT");
- NPRR513, Removal of Nodal Implementation Surcharge;
- NPRR515, Day-Ahead Market Self-Commitment of Generation Resources;
- NPRR516, Change to Verifiable Cost Manual Revision Process;
- NPRR517, Revisions to the Telemetry Standards and State Estimator Standards Approval Process;
- NPRR522, Adjustment of Demand Response Performance for Distribution Losses (formerly "Adjustment of Demand Response Performance for T&D Losses ");
- NPRR523, Available Credit Limit (ACLC and/or ACLD) Calculations During Computer System Failures;
- NPRR525, Elimination of Three-Year Expiration for CRR Auction Revenue Distribution Methodology;
- NPRR526, Frequency of Audit on ERCOT Model;
- NPRR531, Clarification of IRR Forecasting Process Posting Requirement; and
- PGRR027, Analysis of Subsynchronous Resonance Studies in Transmission Studies

THEREFORE be it RESOLVED, that the ERCOT Board hereby approves NPRRs 491, 513, 515, 516, 517, 522, 523, 525, 526, 531; and PGRR027.

CORPORATE SECRETARY'S CERTIFICATE

I, Vickie G. Leady, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its July 16, 2013 meeting, the ERCOT Board passed a motion approving the above Resolution by _____.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of July 2013.

_____
Vickie G. Leady
Assistant Corporate Secretary