Date: November 9, 2010
To: Board of Directors
From: Brad Jones, Technical Advisory Committee (TAC) Chair
Subject: Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch

Issue for the ERCOT Board of Directors

ERCOT Board of Directors Meeting Date: November 16, 2010
Agenda Item No.: 6c

Issue:
Nodal Protocol Section 6.5.7.1.11, Transmission Network and Power Balance Constraint Management, requires ERCOT Board approval of the methodology for setting maximum Shadow Prices for network constraints and for the power balance constraint.

Background/History:
At the August 17, 2010 ERCOT Board meeting, the Board approved Nodal Protocol Revision Request (NPRR) 218, Resolution of Alignment Item A71 - Add Protocol Description of the Power Balance Penalty Factor used in the Security Constrained Economic Dispatch (SCED), which introduced the following language as paragraph (4) of Nodal Protocol Section 6.5.7.1.11:

(4) ERCOT shall determine the methodology for setting maximum Shadow Prices for network constraints and for the power balance constraint. Following review and recommendation by TAC, the ERCOT Board shall review the recommendation and approve a final methodology.

In response, ERCOT developed a business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch, and presented the document to both the Wholesale Market Subcommittee (WMS) and the Nodal Advisory Task Force (NATF).

At the September 22, 2010 WMS meeting, WMS voted via roll call vote with 61.1% in favor, 38.9% opposed and seven (7) abstentions to recommend to NATF to begin the Power Balance Penalty curve at $500, go up to 40 MW and that WMS should review again in the first quarter of 2011. See the WMS meeting key documents for additional detail. ERCOT incorporated the WMS recommendations and at its October 5, 2010 meeting, NATF unanimously voted to endorse the ERCOT business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Economic Dispatch, as recommended by WMS and as subsequently revised by ERCOT.

On October 7, 2010, TAC voted to table the document until the November 4, 2010 TAC meeting and requested additional WMS feedback. At its October 20, 2010 meeting, WMS unanimously voted to request ERCOT report on any analysis in regards to Day-Ahead Shadow Price Caps at the January, 2011 WMS meeting, and at the March 2011 WMS for ERCOT to provide further analysis that would allow WMS to potentially recommend a change in the Day-

Ahead Shadow Price Caps. WMS also voted to recommend approval of the Power Balance Penalty Curve ERCOT presented to WMS, stair stepping from $200 at 1 MW to $3001 at 50 MW with a small flatter slope up to 30 MW and steeper slope after 30 MW. The motion carried via roll call vote with 55% in favor, 45% opposed and two (2) abstentions from the Independent Generator and IOU Market Segments. See the WMS meeting key documents for additional detail.

ERCOT revised the document based on October 20, 2010 WMS input and on November 4, 2010, TAC voted to endorse the revised document, Setting the Shadow Price Caps and Power Balance Penalties in Security Economic Dispatch, as endorsed by WMS. The motion passed with one (1) opposing vote from the Independent Power Marketer Market Segment.

The TAC recommended document is attached hereto as Exhibit A.

Key Factors Influencing Issue:

In response to the approval of NPRR218, ERCOT staff developed a business practice document, reviewed the document with WMS and NATF and the TAC voted to submit the above recommendation to the ERCOT Board.

Alternatives:

1. Approve the TAC recommendation for the ERCOT business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch, as described above or as modified by the ERCOT Board;
2. Reject the TAC recommendation on the ERCOT business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch;
3. Defer decision on the merits of the ERCOT business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch; or
4. Remand the ERCOT business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch to TAC with instructions.

Conclusion/Recommendation:

As more specifically described above, TAC recommends that the ERCOT Board approve the ERCOT business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch.

ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
BOARD OF DIRECTORS RESOLUTION

WHEREAS, after due consideration of the alternatives, the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) deems it desirable and in the best interest of ERCOT to approve the ERCOT business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch, attached hereto as Exhibit A;

WHEREAS, paragraph (4) of Nodal Protocol Section, 6.5.7.1.11, Transmission Network and Power Balance Constraint Management, requires ERCOT Board approval of the methodology for setting maximum Shadow Prices for network constraints and for the power balance constraint;

THEREFORE be it RESOLVED, that the ERCOT Board hereby approves the ERCOT business practice document, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch.

CORPORATE SECRETARY'S CERTIFICATE

I, Bill Magness, Corporate Secretary of ERCOT, do hereby certify that, at its November 16, 2010 meeting, the ERCOT Board passed a motion approving the above Resolution by _____.

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of November, 2010.

_____
Bill Magness
Corporate Secretary