



**The Finance & Audit (F&A) Committee is  
expected to consider  
F&A Committee Agenda Item 5:**

***Recommendation Regarding DAM Credit  
Parameters***

**at its meeting on April 13, 2015.**

**The Board of Directors is expected to hear the  
F&A Committee's recommendation on this matter  
as part of the F&A Committee Report at  
the Board meeting on April 14, 2015.**

**Attached are the Board and Committee materials in  
relation to these agenda items.**



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## **Item 5: Recommendation regarding DAM Credit Parameters**

**Mark Ruane**  
**Director, Market Credit**

Finance & Audit Committee Meeting  
April 13, 2015  
ERCOT Public

## Item A

Protocol Section 4.4.10(6)(g)(ii), Credit Requirement for DAM Bids and Offers, specifies:

A TAC-recommended and ERCOT Board-approved procedure (“Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters”), which will be reviewed at least annually and posted on the MIS Public Area, will be used to define and modify the values of “e1,” “e2,” and “e3.”

## Item B

Protocol Section 4.4.10(7), Credit Requirement for DAM Bids and Offers, specifies:

The variables to define the pre-DAM credit validation process referenced in item (6) above (including the standard setting for the “e1,” “e2,” and “e3,” if any) shall be posted on the MIS Public Area. TAC shall review these variables at least annually and may recommend to the ERCOT Board, changes to these values. If changes to these values are approved by the ERCOT Board, such revised values shall be posted on the MIS Public Area within three Business Days of ERCOT Board approval.

The values for these variables are set forth in the Other Binding Document (OBD) “Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters.”

Please note that NPRR 671, “Incorporation of DAM Credit Parameters into Protocols,” incorporates the OBD into Protocols. In addition, the NPRR removes the requirement for annual review while adding change control processes for the parameters consistent with other credit parameters.

## Item C

Protocol Section 4.4.10(6)(d)(iv), Credit Requirement for DAM Bids and Offers, specifies:

For qualified PTP Obligation bids, ERCOT shall reduce the credit exposure in paragraph (6)(d)(i) above, by the product of the bid price, if positive, and the quantity of the bid less than or equal to the quantity of the total of all expiring CRRs at the specified source and sink pair and delivery period, less all valid previously submitted PTP Obligation bids at the specified source and sink pair and delivery period multiplied by a factor initially set at 90% and to be reviewed by TAC and approved by the ERCOT Board at least annually.

The Board last approved these items at its June 10, 2014 meeting.

At its January 20, 2015 meeting CWG recommended that the DAM credit parameters remain unchanged.

WMS voted in favor of the same recommendation at its February 4, 2015 meeting.

TAC voted in favor of the same recommendation at its February 26, 2015 meeting.

## F&A Committee Recommendation to Board <Vote>

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ERCOT staff requests that the F&A Committee vote to recommend to the ERCOT Board, as recommended by TAC, that:

- A. The procedure (“Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters”) remain unchanged;
- B. The variables to define the pre-DAM credit validation process remain unchanged; and
- C. The discount factor applied to qualified PTP Option Bids remain unchanged.

The Board will consider this matter at its April 14, 2015 meeting in connection with the F&A Committee Report. For ease of reference, TAC’s recommendation to the Board follows this presentation.

**<VOTE>**



**Date:** April 7, 2015  
**To:** Board of Directors  
**From:** Randa Stephenson, Technical Advisory Committee (TAC) Chair  
**Subject:** Day-Ahead Market (DAM) Credit Parameters

**Issue for the ERCOT Board of Directors**

**ERCOT Board of Directors Meeting Date:** April 14, 2015

**Agenda Item No.:** 8.2

**Issue:**

The Protocols require ERCOT Board review and approval of certain credit parameters:

- Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters;
- Variables to Define the Pre-DAM Credit Validation Process; and
- Point to Point (PTP) Obligation Bid Reduction Factor.

**Background/History:**

***Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters***

As specified in Protocol Section 4.4.10, Credit Requirement for DAM Bids and Offers, the ERCOT Board is required to annually review the Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters (Procedures). The ERCOT Board last considered the Procedures at its June 10, 2014 meeting, and approved the procedures with no revisions.

On February 26, 2015, TAC unanimously voted to affirm the current document, Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters, as recommended by both the Wholesale Market Subcommittee (WMS) and the Credit Work Group.

The current document is attached hereto as Attachment A.

***Variables to Define the Pre-DAM Credit Validation Process***

As specified in paragraph (7) of Protocol Section 4.4.10, the ERCOT Board is required to annually review the variables to define the pre-DAM credit validation process as noted below:

The variables to define the pre-DAM credit validation process referenced in item (6) above (including the standard setting for the “e1,” “e2,” and “e3,” if any) shall be posted on the MIS Public Area. TAC shall review these variables at least annually and may recommend to the ERCOT Board, changes to these values. If changes to these values are approved by the ERCOT Board, such revised values shall be posted on the MIS Public Area within three Business Days of ERCOT Board approval.

The values for these variables are set forth in the Procedures. The ERCOT Board last considered the variables to define the pre-DAM credit validation process at its June 10, 2014 meeting, and approved the variables with no changes.

On February 26, 2015, TAC unanimously voted to recommend to the ERCOT Board maintaining the values for the variables to define the pre-DAM credit validation process as recommended by both the WMS and the Credit Work Group.

***Point to Point (PTP) Obligation Bid Reduction Factor***

As specified in paragraph (6)(d)(iv) of Protocol Section 4.4.10, the ERCOT Board is required to annually review the PTP Obligation bid reduction factor as noted below:

For qualified PTP Obligation bids, ERCOT shall reduce the credit exposure in paragraph (6)(d)(i) above, by the product of the bid price, if positive, and the quantity of the bid less than or equal to the quantity of the total of all expiring CRRs at the specified source and sink pair and delivery period, less all valid previously submitted PTP Obligation bids at the specified source and sink pair and delivery period multiplied by a factor initially set at 90% and to be reviewed by TAC and approved by the ERCOT Board at least annually.

The ERCOT Board last considered the PTP Obligation bid reduction factor at its June 10, 2014 meeting and approved the factor with no changes.

On February 26, 2015 TAC unanimously voted to recommend to the ERCOT Board maintaining the 90% PTP Obligation bid reduction factor as recommended by both the WMS and the Credit Work Group.

**Key Factors Influencing Issue:**

Considering Credit Work Group, WMS and ERCOT staff input, TAC did the following:

- Reviewed the Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters and voted to submit the above recommendation to the ERCOT Board or as further defined in Attachment A;
- Reviewed the current variables to define the pre-DAM credit validation process in Protocol Section 4.4.10 and voted to recommend to the ERCOT Board maintaining the existing values for the variables; and
- Reviewed the current PTP Obligation bid reduction factor in Protocol Section 4.4.10 and voted to recommend to the ERCOT Board maintaining the 90% PTP Obligation bid reduction factor.

**Conclusion/Recommendation:**

As more specifically described above, TAC recommends that the ERCOT Board:

- Reaffirm the current Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters as described in Attachment A;
- Maintain the existing values for the variables to define the pre-DAM credit validation process; and
- Maintain the 90% PTP Obligation bid reduction factor.

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

WHEREAS, the following paragraphs of Protocol Section 4.4.10, Credit Requirement for DAM Bids and Offers, require ERCOT Board review and approval of certain credit parameters:

- Paragraph (6)(g)(ii) requires annual ERCOT Board review of the Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters;
- Paragraph (7) requires annual ERCOT Board review of the variables to define the pre-DAM credit validation process; and
- Paragraph (6)(d)(iv) requires annual ERCOT Board review of the Point-to-Point (PTP) Obligation bid reduction factor.

WHEREAS, the ERCOT Board deems it desirable and in ERCOT's best interest to:

- Reaffirm the current Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters, attached hereto as Attachment A;
- Maintain the current values for the variables to define the pre-DAM credit validation process; and
- Maintain the 90% PTP Obligation bid reduction factor.

THEREFORE be it RESOLVED, that the ERCOT Board hereby approves the following:

- The current Procedures for Setting Nodal Day-Ahead Market Credit Requirement Parameters as specified in paragraph (6)(g)(ii) of Protocol Section 4.4.10;
- The current values for the variables to define the pre-DAM credit validation process as specified in paragraph (7) of Protocol Section 4.4.10; and
- The current 90% PTP Obligation bid reduction factor as specified in paragraph (6)(d)(iv) of Protocol Section 4.4.10.

**CORPORATE SECRETARY'S CERTIFICATE**

I, Vickie G. Leady, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its April 14, 2015 meeting, the ERCOT Board passed a motion approving the above Resolution by \_\_\_\_\_.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_ day of April, 2015.

\_\_\_\_\_  
Vickie G. Leady  
Assistant Corporate Secretary

# Procedures for Setting Nodal Day Ahead Market (DAM) Credit Requirement Parameters

Attachment A

## Revisions and Approval Information

ERCOT Board Approval Date: 6/10/14

### Revision History:

Date	Version	Description	Author
11/16/10	0.1	Initial document name- Day Ahead Market (DAM) Collateral Parameters Process	
7/19/11	0.2	Annual Review and Approval from the ERCOT Board. Revisions to the title and General Procedure language.	Mark Ruane
7/17/12	0.3	Annual Review and Approval from the ERCOT Board (no changes)	Mark Ruane
7/16/13	0.4	Annual Review and Approval from the ERCOT Board (no changes)	Mark Ruane
6/10/14	0.5	Annual Review and Approval from the ERCOT Board (no changes)	Mark Ruane

# Procedures for Setting Nodal Day Ahead Market (DAM) Credit Requirement Parameters

Attachment A

*As required by Nodal Protocol Section 4.4.10, Credit Requirements for DAM Bids and Offers*

## **General Procedure**

ERCOT will evaluate and may adjust each Counter-Party's "e" factors at least once every two weeks.

ERCOT may adjust "e" factors up or down based on ERCOT's judgment, so long as the reason is documented, and the documentation is provided to the Counter-Party.

For purpose of clarity, "e" factors will be rounded to the hundredth decimal place.

ERCOT must re-examine "e" factors immediately if:

- a. Counter-Party exceeds 90% of Available Credit Limit (ACL) available to Day-Ahead Market (DAM).
- b. Counter-Party's Three Part Supply Offers (TPOs) "significantly" decrease, DAM Energy Only Offers (EOOs) "significantly" increase or decrease and/or DAM Energy Bids increase or decrease "suddenly".

ERCOT may adjust DAM credit parameters up or down at ERCOT's sole discretion with at least two Bank Business Day's Notice. ERCOT may loosen credit parameters with less Notice, if needed.

**The default value of parameters for every Counter-Party are:**

**e1 = 95th percentile** of Ratio1 over the last 30 days

where Ratio1 is a daily calculation as follows:

$$\text{Ratio1} = \text{Min}[1, \text{Max}[0, (\sum_{h=1,24} (Q_{\text{cleared-Bids}} * P_{\text{DAM}} - Q_{\text{cleared-TPO}} * P_{\text{DAM}} - Q_{\text{cleared-EOO}} * P_{\text{DAM}}) / (\sum_{h=1,24} Q_{\text{cleared-Bids}} * P_{\text{DAM}}))]]$$

except Ratio1 = 1 when  $\sum_{h=1,24} Q_{\text{cleared-Bids}} * P_{\text{DAM}} = 0$

**e2 = 0, e3 = 1, d = 85, a = 50, b = 45, y = 45, z = 50, u = 90, t = 50**

# **Procedures for Setting Nodal Day Ahead Market (DAM) Credit Requirement Parameters**

Attachment A

**Counter-Party may request ERCOT for more favorable parameters by agreeing to all the conditions below:**

1. Notify ERCOT of expected changes due to change in activity, and the likely duration of such changes, to the following values as soon as practicable after being estimated by the Counter-Party and at least two Business Days in advance of when such changes become effective:
  - a. If Ratio1 is likely to be greater than the Counter-Party's currently assigned value of e1 for particular day(s), then the estimated daily values of Ratio1 specifying the day(s) along with the daily DAM Energy Bid, EOO, and TPO quantity assumptions used to arrive at those values; and
  - b. If Ratio is likely to be lower than the Counter-Party's currently assigned value of e2 for particular day(s), then the estimated daily values of Ratio2 specifying the day(s) along with the daily DAM Energy Bid, EOO, and TPO quantity assumption used to arrive at those values
2. ERCOT, in its sole discretion, will determine the adequacy of the disclosures made in 1 above and may require additional information as needed in evaluating whether a Counter-Party is eligible for favorable treatment.
3. ERCOT may change the triggers for providing information (as described in 1 above) to ensure reasonable levels of information are obtained.
4. ERCOT may, but is not required, to use information provided to re-evaluate "e" factors and may take other information into consideration as needed. Under routine procedure, ERCOT may change any "e" factor with at least two Bank Business Day's Notice. However, ERCOT may adjust any "e" factor immediately if, in its sole discretion, ERCOT determines that the "e" factor(s) set for a Counter-Party do not adequately match the financial risk created by that Counter-Party's activities in the market.
5. If ERCOT determines that information provided to ERCOT is erroneous or that ERCOT has not been notified of required changes, ERCOT may set all parameters for the Counter-Party to the default values with a possible adder on the "e1" variable, at ERCOT's sole discretion, for a period of not less than seven days and until ERCOT is satisfied that the Counter-Party is complying with the rules for more favorable treatment. In no case shall the adder result in an e1 value greater than one.

**If an Entity meets the requirements above for more favorable treatment, then the parameters for that Counter-Party are:**

*ERCOT Board Approved 06/10/14*

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# Procedures for Setting Nodal Day Ahead Market (DAM) Credit Requirement Parameters

Attachment A

**e1 = 75th percentile** of Ratio1 over the last 30 days

where Ratio1 is a daily calculation as follows:

$$\text{Ratio1} = \text{Min}[1, \text{Max}[0, (\sum_{h=1,24} (Q_{\text{cleared-Bids}} * P_{\text{DAM}} - Q_{\text{cleared-TPO}} * P_{\text{DAM}} - Q_{\text{cleared-EOO}} * P_{\text{DAM}}) / (\sum_{h=1,24} Q_{\text{cleared-Bids}} * P_{\text{DAM}}))]]$$

except Ratio1 = 1 when  $\sum_{h=1,24} Q_{\text{cleared-Bids}} * P_{\text{DAM}} = 0$

ERCOT may adjust the value of e1 by changing the quantity of bids or offers to the values reported by the Counter-Party in Condition 1 above or based on information available to ERCOT.

**e2 = 25th percentile** of Ratio2 over the last 30 days

where Ratio2 is a daily calculation as follows:

$$\text{Ratio2} = 1 - \text{Max}[0, (\sum_{h=1,24} (Q_{\text{cleared-EOO}} + Q_{\text{cleared-TPO}} - Q_{\text{cleared-Bids}}) / (\sum_{h=1,24} (Q_{\text{cleared-EOO}} + Q_{\text{cleared-TPO}})))]$$

except Ratio2 = 0 when  $\sum_{h=1,24} (Q_{\text{cleared-EOO}} + Q_{\text{cleared-TPO}}) = 0$

ERCOT may adjust the value of e2 by changing the quantity of bids or offers to the values reported by the Counter-Party in Condition 1 above or based on information available to ERCOT.

**e3 = 1**

**d = 85, a = 50, b = 45, y = 45, z = 50, u = 90, t = 50**

## FOR NEW COUNTER-PARTY THAT STARTS AFTER NODAL GO-LIVE

### From entry until the second biweekly reset

**e1 = 1, e2 = 0, e3 = 1** (all percentiles are the same as those in effect for the entire market)

**“e” factors will be set in accordance with the normal procedure beginning with the second biweekly reset.**