

**Date:** June 2, 2014  
**To:** ERCOT 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 (ERCOT Board) Meeting Date:** June 10, 2014

**Agenda Item No.:** 11.1

**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 paragraph (6)(g)(ii) of 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 July 16, 2013 meeting, and approved the Procedures with no revisions.

On April 24, 2014, 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 July 16, 2013 meeting, and approved the variables with no changes.

On April 24, 2014, 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 November 19, 2013 meeting and approved a change in the factor from 80% to 90%.

On April 24, 2014, 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 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 respectfully 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 June 10, 2014 meeting, the ERCOT Board passed a motion approving the above Resolution by \_\_\_\_\_.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_ day of June, 2014.

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

**Attachment A**

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

**Revisions and Approval Information**

ERCOT Board Approval Date: 7 /16/13

**Revision History:**

<b>Date</b>	<b>Version</b>	<b>Description</b>	<b>Author</b>
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

## Attachment A

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

*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**

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

*ERCOT Board Approved 07/16/13*

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## Attachment A

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

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:**

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

**Attachment A**

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

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.**