

Day Ahead Market (DAM) Collateral Parameters Process

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

Recommended by the 4/8/10 TAC and approved by the 4/21/10 ERCOT Board

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 ~~and the "u" percentile~~ 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 ACL available to 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.

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For First 14 Days of DAM

e1 = 1, e2 = 0, e3 = 1, d = 95, a = 50, b = 20, y = 0, z = 0, u = 90, t = 95 (all percentiles based on corresponding Zonal prices over last 30 days of the Zonal Market)

For Next 46 Days of DAM

e1 = 95th percentile of Ratio0 over the last 30 days or since first DAM

where Ratio0 is a daily calculation as follows:

$$\text{Ratio0} = \frac{\text{Min}\{1, \text{Max}\{0.2, (\sum_{h=1,24} (Q_{\text{cleared-Bids}} * P_{\text{DAM}} - Q_{\text{cleared-TPO}} * P_{\text{DAM}} - Q_{\text{cleared-EOG}} * P_{\text{DAM}})) / (\sum_{h=1,24} Q_{\text{cleared-Bids}} * P_{\text{DAM}}) * 1.2\}\}}{1}$$

except Ratio0 = 1 when $\sum_{h=1,24} Q_{\text{cleared-Bids}} * P_{\text{DAM}} = 0$

e2 = 0, e3 = 1, d = 95, a = 50, b = 20, y = 25, z = 25, u = 90, t = 95 (all percentiles based on Nodal prices over last 30 days or since start of Nodal Market)

ERCOT Board Approved 4/21/10

After 60 Days of DAM

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:

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 2 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 2 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 7 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

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 resector First 14 DAMs after the Counter-Party becomes Active

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.

For Next 46 DAMs after the Counter-Party becomes Active

e1 = 95th percentile of Ratio0 over the last 30 days or since first DAM

where Ratio0 is a daily calculation as follows:

$$\text{Ratio0} = \frac{\text{Min}[1, \text{Max}\{0.2, (\sum_{h=1,24} (Q_{\text{cleared-Bids}} * P_{\text{DAM}} - Q_{\text{cleared-TPO}} * P_{\text{DAM}} - Q_{\text{cleared-EOG}} * P_{\text{DAM}})) / (\sum_{h=1,24} Q_{\text{cleared-Bids}} * P_{\text{DAM}}) * 1.2\}]}{1}$$

except Ratio0 = 1 when $\sum_{h=1,24} Q_{\text{cleared-Bids}} * P_{\text{DAM}} = 0$

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

After 60 DAMs after the Counter-Party becomes Active

Same as "After 60 Days of DAM" above.