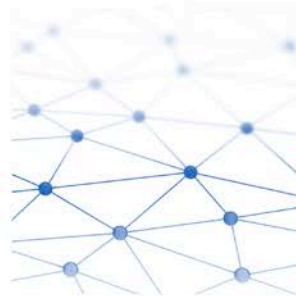


# MARKET OPERATIONS MARKET MANUAL

PRUDENTIAL REQUIREMENTS (Chapter 2 Market Rules)



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## 1 Definitions

- 1.1 All terms in italics used in this *market manual* shall have the same meanings as ascribed to them under the *market rules*.
- 1.2 The following terms shall have the same meanings as ascribed to them under Chapter 7 of the *market rules*:
- (i) “AFP<sub>h</sub>” is as defined in section 3.2.2 of Chapter 7 of the *market rules*;
  - (ii) “EMCA<sub>h</sub>” refers to the rate of EMC’s administrative costs to be recovered from a *settlement account* for a *settlement interval* h under section 4.2 of Chapter 7 of the *market rules*;
  - (iii) “HEUC<sub>h</sub>” is as defined in section 3.5.2A of Chapter 7 of the *market rules*;
  - (iv) “MEUC<sub>h</sub>” refers to the monthly *energy* uplift charge which is estimated, and applied to *settlement interval* h, as provided in section 3.5.3 of Chapter 7 of the *market rules*;
  - (v) “PSOA<sub>h</sub>” refers to the rate of PSO’s administrative costs to be recovered from a *settlement account* for a *settlement interval* h under section 4.2 of Chapter 7 of the *market rules*; and
  - (vi) “USEP<sub>h</sub>” is as defined in section 2.2.2 of Chapter 7 of the *market rules*.

Each of the foregoing values is as set out in the relevant *preliminary settlement statement* (or corresponding *final settlement statement*, which if available, shall be used instead of such *preliminary settlement statement*) for the *trading day* of such *settlement interval* h.

- 1.3 In this *market manual*:
- (i) “|A|” refers to the positive value of A, disregarding the sign;
  - (ii) “ $\sum_h$ ” refers to the sum across all *settlement intervals* h in a given *trading day* T;
  - (iii) “First Assessment Day”, in respect of a *market participant*, refers to the first *business day* on which the *market participant* is issued a *preliminary settlement statement* that contains a non-zero net *settlement amount*;
  - (iv) “ForecastDailyGrossInjection” refers to the forecast quantity (in MWh) required to be provided pursuant to section 3.1.2(ii);
  - (v) “ForecastDailyGrossWithdrawal” refers to the forecast quantity (in MWh) required to be provided pursuant to section 3.1.2(i);
  - (vi) “GST” (expressed as a decimal) refers to the prevailing goods and services tax rate under *applicable law*;

- (vii) “ $IEQ_{h,T}$ ” refers to the sum of injection *energy* quantities across all *MNNs* associated with *settlement accounts* that are associated with a given *market participant* in a given *settlement interval h* of *trading day T*, as set out in the *preliminary settlement statement* of such *market participant* (or corresponding *final settlement statement* of such *market participant*, which if available, shall be used instead of such *preliminary settlement statement*) for *trading day T*; and
- (viii) “ $WEQ_{h,T}$ ” refers to the sum of withdrawal *energy* quantities across all *settlement accounts* associated with a given *market participant* in a given *settlement interval h* of *trading day T*, as set out in the *preliminary settlement statement* of such *market participant* (or corresponding *final settlement statement* of such *market participant*, which if available, shall be used instead of such *preliminary settlement statement*) for *trading day T*.

## 2 Current Exposure

### 2.1 Current Exposure

The current exposure for a *market participant* on a given day is negative one multiplied by the aggregate of the net *settlement amounts* set out on all of the *market participant's preliminary settlement statements* (or corresponding *final settlement statements*, which if available, shall be used instead of such *preliminary settlement statements*) for all *trading days* where the *invoices* (whether or not issued) for such *settlement statements* would not yet be due for payment on that given day.

**Explanatory Note:**

The current exposure is used to determine a market participant's estimated net exposure, which is in turn used to determine if a market participant is required to place additional credit support.

By convention, a positive current exposure of a market participant indicates that the market participant has, or may have, payment liability to the EMC, while a negative current exposure indicates that the market participant has, or may have, a right to payment from the EMC. By convention, the value of credit support held by the EMC is also reflected as a positive number.

However, section 5.3.3 of Chapter 7 states that where the net settlement amount for a market participant is negative, the absolute value of the settlement amount shall be an amount payable by the market participant to the EMC; or where the net settlement amount for a market participant is positive, the settlement amount shall be an amount receivable by the market participant from the EMC.

Thus, in determining current exposure consistently with the conventions described above, the aggregate of the net *settlement amounts* would need to be multiplied by negative one.

### 2.2 Estimated net exposure

The estimated net exposure of each *market participant* on a given day represents an estimate of the *market participant's* 20-day exposure and shall be determined in accordance with the following formula:

Estimated Net Exposure =

Current Exposure + (20-X) × (Estimated Average Daily Exposure) – Prepayment Amount + [Unpaid Amount](#)

where:

1. Prepayment Amount = the sum of:

- (a) the aggregate prepayments paid to the *EMC* by the *market participant* under section 5.9.2 of Chapter 7 of the *market rules*; and
- (b) the aggregate prepayments paid to the *EMC* by the *market participant* under section 7.5.1.2 of Chapter 2 of the *market rules*.

2. 'X' refers to the number of *trading days* to which the *market participant's* current exposure on the given day relate.

3. Unpaid Amount = the aggregate of the net invoice amounts in respect of which payment has not been received by the EMC under section 9.3.1.1 of Chapter 2 of the market rules, less the aggregate of any claimed or drawn dollar amounts that have been recovered by the EMC under any credit support held in respect of the defaulting market participant.

2.

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**Explanatory Note:**

The estimated net exposure is used by the EMC to (among other things) determine if a margin call should be issued to a market participant under section 7.4.2 of Chapter 2.

By convention, a positive estimated net exposure of a market participant indicates that the market participant has, or may have, payment liability to the EMC, while a negative estimated net exposure indicates that the market participant has, or may have, a right to payment from the EMC. By convention, the value of credit support held by the EMC is also reflected as a positive number.

Consistent with the above conventions, a negative estimated net exposure of a market participant would thus always be less than any positive value of the credit support of the market participant for the purposes of section 7.4.2 of Chapter 2 and thus would not require any margin calls to be issued to the market participant under that section.

### 3 Estimated Average Daily Exposure

#### 3.1 Determining forecast and initial estimated average daily exposure

3.1.1 For the purposes of determining a *participation applicant's* or a *market participant's* estimated average daily exposure referred to in sections 7.3.1 and 7.3.2 of Chapter 2 of the *market rules*:

- (i) for the period commencing from (and including) the date the *participation applicant* is registered as a *market participant* until but excluding the First Assessment Day (such period is hereafter referred to in this *market manual* as the "forecast period"), the estimated average daily exposure of such *market participant* for each *business day* in the forecast period shall be calculated in accordance with section 3.1.3 (hereafter referred to in this *market manual* as the "forecast estimated average daily exposure"); and
- (ii) for the period commencing from (and including) the First Assessment Day until but excluding the *business day* when 90 *preliminary settlement statements* of that *market participant* have been issued since the First Assessment Day (such period is hereafter referred to in this *market manual* as the "initial period"), the estimated average daily exposure of that *market participant* for each *business day* in the initial period shall be calculated in accordance with section 3.1.4 (hereafter referred to as the "initial estimated average daily exposure").

3.1.2 For the purposes of determining a *participation applicant's* estimated average daily exposure referred to in section 7.3.1 of Chapter 2 of the *market rules*, the *participation applicant* shall provide the *EMC* with the following information:

- (i) the average daily gross *energy* withdrawal (ForecastDailyGrossWithdrawal, in MWh), being the average of its forecasted daily gross *energy* withdrawal for a 30-day period; and
- (ii) the average daily gross *energy* injection (ForecastDailyGrossInjection, in MWh), being the average of its forecasted daily gross *energy* injection for a 30-day period.

The *participation applicant* (or when the *participation applicant* becomes a *market participant*, the *market participant*) may, at any time prior to one *business day* before the First Assessment Day, provide the *EMC* with such revisions or updates to the aforementioned information as necessary. No revisions or updates to the aforementioned information may be submitted after the aforementioned deadline.

- 3.1.3 For the forecast period, the forecast estimated average daily exposure of a *participation applicant* or *market participant* shall be calculated as follows:

$$(1 + \text{GST}) \times (\text{USEP}_{\text{avg}} + \text{HEUC}_{\text{avg}} + \text{MEUC}_{\text{avg}} + \text{PSOA}_{\text{avg}} + \text{EMCA}_{\text{avg}}) \times (\text{ForecastDailyGrossWithdrawal} - \text{ForecastDailyGrossInjection}) + (1 + \text{GST}) \times \text{AFP}_{\text{avg}} \times (\text{ForecastDailyGrossWithdrawal} + |\text{ForecastDailyGrossInjection}|)$$

where:

USEP<sub>avg</sub>, HEUC<sub>avg</sub>, AFP<sub>avg</sub>, MEUC<sub>avg</sub>, PSOA<sub>avg</sub>, and EMCA<sub>avg</sub> are the averages of USEP<sub>h</sub>, HEUC<sub>h</sub>, AFP<sub>h</sub>, MEUC<sub>h</sub>, PSOA<sub>h</sub> and EMCA<sub>h</sub>, respectively, for all *settlement intervals* in all of the last 90 most recent *trading days* for which *final settlement statements* are available.

- 3.1.4 For the initial period, the initial estimated average daily exposure of a *market participant* shall be calculated as follows:

$$(1 + \text{GST}) \times (\text{USEP}_{\text{avg}} + \text{HEUC}_{\text{avg}} + \text{MEUC}_{\text{avg}} + \text{PSOA}_{\text{avg}} + \text{EMCA}_{\text{avg}}) \times \max[\text{ForecastDailyGrossWithdrawal} - \text{ForecastDailyGrossInjection}, \text{Maximum Daily Net Withdrawal}] + (1 + \text{GST}) \times \text{AFP}_{\text{avg}} \times \max[\text{ForecastDailyGrossWithdrawal} + \text{ForecastDailyGrossInjection}, \text{Maximum Daily AFP Quantities}]$$

where:

USEP<sub>avg</sub>, HEUC<sub>avg</sub>, AFP<sub>avg</sub>, MEUC<sub>avg</sub>, PSOA<sub>avg</sub>, and EMCA<sub>avg</sub> are the averages of USEP<sub>h</sub>, HEUC<sub>h</sub>, AFP<sub>h</sub>, MEUC<sub>h</sub>, PSOA<sub>h</sub> and EMCA<sub>h</sub>, respectively, for all *settlement intervals* in all of the last 90 most recent *trading days* for which *preliminary settlement statements* are available;

$\max[A, B]$  = Maximum of A or B;

Maximum Daily Net Withdrawal = maximum of DNW<sub>T</sub> across all *trading days* for which a *preliminary settlement statement* of the *market participant* is available

$$\text{where DNW}_T = \sum_h (\text{WEQ}_{h,T} - \text{IEQ}_{h,T});$$

Maximum Daily AFP Quantities = maximum of DAQ<sub>T</sub> across all *trading days* for which a *preliminary settlement statement* of the *market participant* is available

$$\text{where DAQ}_T = \sum_h (\text{WEQ}_{h,T} + |\text{IEQ}_{h,T}|).$$

## 3.2 Determining subsequent estimated average daily exposure

With effect from the end of the initial period, the estimated average daily exposure of each *market participant* on a given day shall be determined as negative one multiplied by the simple average of the net *settlement amounts* set out in the 90 most recently available *preliminary settlement statements* (or



corresponding *final settlement statements*, which if available, shall be used instead of such *preliminary settlement statements*) of that *market participant*, such *settlement statements* having been issued on or before that given day.

**Explanatory Note:**

**By convention, a positive estimated average daily exposure of a market participant indicates that the market participant has, or may have, payment liability to the EMC, while a negative estimated average daily exposure indicates that the market participant has, or may have, a right to payment from the EMC.**

**However, section 5.3.3 of Chapter 7 states that where the net settlement amount for a market participant is negative, the absolute value of the settlement amount shall be an amount payable by the market participant to the EMC; or where the net settlement amount for a market participant is positive, the settlement amount shall be an amount receivable by the market participant from the EMC.**

**Thus, in determining estimated average daily exposure consistently with the above convention, the average of the net settlement amounts would need to be multiplied by negative one.**

**For the avoidance of doubt, a negative estimated average daily exposure of a market participant would be treated as a zero value for the purposes of calculation of credit support value under section 7.3.2 of Chapter 2.**

## 4 Format of Request for Reassessment of Estimated Net Exposure

A *market participant*, who wishes to submit a request for reassessment of its estimated net exposure under section 7.4.3, Chapter 2 of the *market rules*, shall submit a duly completed Request for Reassessment of Estimated Net Exposure in the form set out below, together with all relevant supporting materials, to the *EMC* at the following email address: [settlement@emcsg.com](mailto:settlement@emcsg.com).

**Request for Reassessment of Estimated Net Exposure**

**Date** :

**Submitted by** :

**Company** :

**Settlement A/C** :

**Trading Date** :       **Date of Margin Call Issued by the EMC:**

**Reason(s) for Reassessment**

We are submitting this Request for Reassessment of Estimated Net Exposure in accordance with Section 7.4.3, Chapter 2 of the Market Rules as we have a reasonable basis to believe that there is a manifest error in the determination of our estimated net exposure ("ENE") by the EMC under section 7.4.2 and that the absence of such error:

- would not have required the making of any margin call by the EMC under section 7.4.2 of Chapter 2 of the Market Rules; AND/OR
- would have resulted in our ENE (if determined correctly) to be either greater than 110%, or lesser than 90%, of the ENE presently determined by the EMC for the purposes of section 7.4.2 of Chapter 2 of the Market Rules.

**Proposed Adjustment to ENE**

*[Please state the nature of the error, the proposed correction to ENE - with the mathematical working]*

**Market Participant must provide supporting materials to support the abovesaid request for reassessment of ENE.**  
*(This Form (duly completed) must be received by the EMC no later than 12pm on the first business day following the date of the margin call issued by the EMC.)*

EMC Internal Use:  
 Date  
 Receipt : \_\_\_\_\_ Received by : \_\_\_\_\_