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## **1. INTRODUCTION AND INTERPRETATION**

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## **2. LEGAL AND GOVERNANCE**

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- 2.8 It is not intended that there be any inconsistency or conflict between any provision of any of the Sections, Appendices or Agreed Procedures of the Code. However, in the event of any inconsistency or conflict, such inconsistency or conflict shall be resolved in the following order of priority:
1. Section 9;
  2. Section 8;
  3. Section 7;
  4. Sections 1, 2, 3, 4, 5 and 6 and the Glossary;
  5. Appendices; and
  6. Agreed Procedures.

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## **3. DATA AND INFORMATION SYSTEMS**

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## **4. PRICING**

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## **5. CATEGORISATION OF UNITS AND RULES FOR SPECIAL UNITS**

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## **6. FINANCIAL AND SETTLEMENT**

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## **7. INTERIM ARRANGEMENTS**

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## **8. TRANSITIONAL ARRANGEMENTS**

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## 9. INTRA-DAY TRADING TRANSITIONAL ARRANGEMENTS

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### Purpose

- 9.1 This Section 9 provides for matters of a transitional nature in relation to the administration of the Code prior to, or from the first Trading Period of, the IDT Start Date.

### Registration of Interconnector Units

- 9.2 Each Participant with Interconnector Units registered in the SEM prior to the IDT Start Date will be deemed to have registered one additional Interconnector Unit in respect of each of the EA2 Gate Window and WD1 Gate Window, each with an Effective Date equal to the IDT Start Date.

### Ex-Ante to Ex-Ante One Transition

- 9.3 Any Commercial Offer Data or Technical Offer Data Transaction which is Accepted prior to or on the IDT Start Date, shall be deemed to be Accepted in respect of the EA1 Gate Window for that Trading Day.
- 9.4 No Commercial Offer Data or Technical Offer Data will be Accepted during the WD1 Gate Window for the IDT Start Date.
- 9.5 The Within Day One MSP Software Run for the IDT Start Date shall be cancelled by the Market Operator.

### Trading Window

- 9.6 From the first Trading Period of the IDT Start Date, the duration of a Trading Window for each MSP Software Run for a Trading Day that is prior to IDT Start Date shall be deemed to be equal to that Trading Day.

### Calculation of Offered Modified Price Quantity Pairs for Interconnector Units

- 9.7 From the first Trading Period of the IDT Start Date, the Offered Modified Price Quantity Pairs for each Interconnector Unit that is effective in the SEM prior to the IDT Start Date, in respect of all Trading Periods  $h$  that occur prior to the end of the IDT Start Date, shall be deemed equal to the Accepted Price Quantity Pairs for all such Trading Periods.

### Calculation of Estimated Capacity Price for Interconnectors

- 9.8 By 21:00 on the day prior to the IDT Start Date, the Market Operator shall undertake the following calculations in paragraphs 9.9 to 9.13, leading to the determination of the Estimated Capacity Price for Interconnectors to apply in respect of the IDT Start Date.
- 9.9 The Market Operator shall calculate the Daily Average Capacity Payments Generation Price (DACPGPd) for each Settlement Day  $d$  in the Historical Assessment Period for Capacity Periods  $p$  as follows:

$$DACPGPd = \frac{\sum_{hind} CPGPh}{count\left(CPGPh: \forall_{hind}\right)}$$

Where:

1. CPGPh is the Capacity Payments Generation Price for Trading Period h;
2.  $\sum_{hind}$  is a summation over Trading Periods h in Settlement Day d.
3.  $count\left(CPGPh: \forall_{hind}\right)$  is the number of all Capacity Payments Generation Prices in Settlement Day d.

- 9.10 The Market Operator shall calculate the number of all Daily Average Capacity Payments Generation Prices (NDACPGPg) in the Historical Assessment Period for Capacity Periods p as follows:

$$NDACPGPg = count\left(DACPGPd: \forall_{din\rho}\right)$$

Where:

1.  $count\left(DACPGPd: \forall_{din\rho}\right)$  is the number of all Daily Average Capacity Payments Generation Prices in the Historical Assessment Period for Capacity Periods p.

- 9.11 The Market Operator shall calculate the mean value of Daily Average Capacity Payments Generation Prices (UMCPGPg) in the Historical Assessment Period for Capacity Periods p as follows:

$$UMCPGPg = \frac{\sum_{din\rho} DACPGPd}{NDACPGPg}$$

Where:

1. DACPGPd is the Daily Average Capacity Payments Generation Price for Settlement Day d;
2.  $\sum_{din\rho}$  is a summation over all Settlement Days d in Historical Assessment Period for Capacity Periods p;
3. NDACPGPg is the number of all Daily Average Capacity Payments Generation Prices in the Historical Assessment Period for Capacity Periods p.

- 9.12 The Market Operator shall calculate the standard deviation of the Daily Average Capacity Payments Generation Price (SDCPGPg) in the Historical Assessment Period for Capacity Periods p to be applied for the Undefined Exposure Period g as follows:

$$SDCPGPg = \sqrt{\frac{NDACPGPg \times \sum_{din\gamma} (DACPGPd)^2 - \left(\sum_{din\gamma} DACPGPd\right)^2}{NDACPGPg \times (NDACPGPg - 1)}}$$

Where:

1. NDACPGPg is the number of all Daily Average Capacity Payments Generation Prices in the Historical Assessment Period for Billing Periods  $p$  to be applied for the Undefined Exposure Period  $g$ ;
2. DACPGPd is the Daily Average Capacity Payments Generation Price for Settlement Day  $d$ ;
3.  $\sum_{d \in p}$  is a summation over all Settlement Days  $d$  in Historical Assessment Period for Capacity Periods  $p$ .

9.13 The Market Operator shall calculate the Estimated Capacity Price for Interconnectors (ECPIg) for Undefined Exposure Period  $g$  as follows:

$$ECPIg = UMCPGPg + AnPP(SDCPGPg)$$

Where:

1. UMCPGPg is the mean value of Capacity Payments Generation Prices in the Historical Assessment Period for Capacity Periods  $p$  applied for the Undefined Exposure Period  $g$ ;
2. AnPP is the Analysis Percentile Parameter function in effect to determine the amount that must be added to the mean value in order that the required percentage of values shall fall below that value. The details of this function are defined in Agreed Procedure 9 "Management of Credit Cover and Credit Default";
3. SDCPGPg is the standard deviation of the values of Capacity Payments Generation Prices in the Historical Assessment Period for Capacity Periods  $p$  to be applied for the Undefined Exposure Period  $g$ .

### Calculation of Energy Traded Exposure

9.14 By 21:00 on the day prior to the IDT Start Date, the Market Operator shall undertake the following calculations in paragraphs 9.15 to 9.22 in strict sequence, leading to the determination of the Interconnector Unit Energy Traded Exposure and Energy Traded Exposure for each Trading Period  $h$  where Initial Settlement in respect of Energy Payments has not been completed, utilising the results of the most recently completed MSP Software Run for the corresponding Trading Period.

9.15 The initial set of Traded Modified Price Quantity Pairs for each Interconnector Unit  $u$  in the relevant Trading Period shall be equal to the latest Offered Modified Price Quantity Pairs and shall be further processed in accordance with paragraphs 9.16 to 9.22.

9.16 For each Interconnector Unit  $u$  that has Traded Modified Price Quantity Pairs where  $P_{uhi} > 0$  and  $P_{uhi-1} < 0$  in Trading Period  $h$ , a Quantity Axis Crossing Point shall be inserted as an additional Price Quantity Pair within the set of Traded Modified Price Quantity Pairs. Such Quantity Axis Crossing Point shall be inserted between  $P_{uhi}Q_{uhi}$  and  $P_{uhi-1}Q_{uhi-1}$  with a Price value equal to zero and a Quantity value equal to the value of Quantity  $Q_{uhi-1}$ .

Where:

1.  $P_{uhi}$  is the  $i$ th Price as part of the set of Traded Modified Price Quantity Pairs for Interconnector Unit  $u$  in Trading Period  $h$ .
2.  $Q_{uhi}$  is the  $i$ th Quantity as part of the set of Traded Modified Price Quantity Pairs for Interconnector Unit  $u$  in Trading Period  $h$ .

- 9.17 For each Interconnector Unit  $u$  that has Traded Modified Price Quantity Pairs where  $Q_{uhi} > 0$  and  $Q_{uhi-1} < 0$  in Trading Period  $h$ , a Price Axis Crossing Point shall be inserted as an additional Price Quantity Pair within the set of Traded Modified Price Quantity Pairs. Such Price Axis Crossing Point shall be inserted between  $P_{uhi}Q_{uhi}$  and  $P_{uhi-1}Q_{uhi-1}$  with a Quantity value of zero and a Price value equal to Price  $P_{uhi}$ .

Where:

1.  $P_{uhi}$  is the  $i$ th Price as part of the set of Traded Modified Price Quantity Pairs for Interconnector Unit  $u$  in Trading Period  $h$ .
  2.  $Q_{uhi}$  is the  $i$ th Quantity as part of the set of Traded Modified Price Quantity Pairs for Interconnector Unit  $u$  in Trading Period  $h$ .
- 9.18 For each Interconnector Unit  $u$ , a Low Limit Quantity point shall be inserted as an additional Price Quantity Pair within the set of Traded Modified Price Quantity Pairs, such that the resulting set of Traded Modified Price Quantity Pairs shall be monotonically increasing in both Price and Quantity. Such Low Limit Quantity point shall be inserted with a Quantity which corresponds with the Low Limit Quantity ( $LLQ_{uh}$ ), as determined in accordance with Table 9.1.

**Table 9.1: Calculation of Low Limit Quantity**

Latest completed MSP Software Run for Trading Period	Low Limit Quantity
Ex-Ante Indicative MSP Software Run and Ex-Post Indicative MSP Software Run	Equals $MIUN_{uhm}$ if $MIUN_{uhm} \leq 0$ Equals 0 if $MIUN_{uhm} \geq 0$
Ex-Post Initial MSP Software Run	Equals $MSQ_{uhm}$ if $MSQ_{uhm} \leq 0$ Equals 0 if $MSQ_{uhm} > 0$

The corresponding Price shall be set to the value of:

- a. Price  $P_{uhi}$  that corresponds with Quantity  $Q_{uhi}$  where  $Q_{uhi-1} < LLQ_{uh} \leq Q_{uhi}$ ; or
- b. Price  $P_{uh1}$  that corresponds with Quantity  $Q_{uh1}$  where  $LLQ_{uh} \leq Q_{uh1}$ ; or
- c. Price  $P_{uhx}$  that corresponds with Quantity  $Q_{uhx}$  where  $LLQ_{uh} > Q_{uhx}$ .

Where, for each Interconnector Unit  $u$  in Trading Period  $h$ :

1.  $P_{uhi}$  is the  $i$ th Price as part of the set of Traded Modified Price Quantity Pairs.
2.  $P_{uh1}$  is the minimum Price as part of the set of Traded Modified Price Quantity Pairs.
3.  $P_{uhx}$  is the maximum Price as part of the set of Traded Modified Price Quantity Pairs.
4.  $Q_{uhi}$  is the  $i$ th Quantity as part of the set of Traded Modified Price Quantity Pairs.
5.  $Q_{uh1}$  is the minimum Quantity as part of the set of Traded Modified Price Quantity Pairs.
6.  $Q_{uhx}$  is the maximum Quantity as part of the set of Traded Modified Price Quantity Pairs.

7. MIUNuhm is the most recently calculated Modified Interconnector User Nomination as calculated following MSP Software Run m.
  8. MSQuhm is the Market Schedule Quantity calculated by MSP Software Run m.
- 9.19 For each Interconnector Unit u, a High Limit Quantity point shall be inserted as an additional Price Quantity Pair within the set of Traded Modified Price Quantity Pairs, such that the resulting set of Traded Modified Price Quantity Pairs shall be monotonically increasing in both Price and Quantity. Such High Limit Quantity point shall be inserted with a Quantity which corresponds with the High Limit Quantity (HLQ<sub>uh</sub>), determined in accordance with Table 9.2.

**Table 9.2: Calculation of High Limit Quantity**

Latest completed MSP Software Run for Trading Period	High Limit Quantity
Ex-Ante Indicative MSP Software Run and Ex-Post Indicative MSP Software Run	Equals MIUNuhm if MIUNuh $\geq 0$ Equals 0 if MIUNuh $< 0$
Ex-Post Initial MSP Software Run	Equals MSQuhm if MSQuhm $\geq 0$ Equals 0 if MSQuhm $< 0$

The corresponding Price shall be set to the value of :

- a. Price P<sub>uhi</sub> that corresponds with Quantity Q<sub>uhi</sub> where  $Q_{uh1} < HLQ_{uh} \leq Q_{uhi}$ ; or
- b. Price P<sub>uh1</sub> that corresponds with Quantity Q<sub>uh1</sub> where  $HLQ_{uh} \leq Q_{uh1}$ ; or
- c. Price P<sub>uhx</sub> that corresponds with Quantity Q<sub>uhx</sub> where  $HLQ_{uh} > Q_{uhx}$ .

Where, for each Interconnector Unit u in Trading Period h:

1. P<sub>uhi</sub> is the i<sup>th</sup> Price as part of the set of Traded Modified Price Quantity Pairs.
  2. Q<sub>uh1</sub> is the minimum Quantity as part of the set of Traded Modified Price Quantity Pairs.
  3. Q<sub>uhi</sub> is the i<sup>th</sup> Quantity as part of the set of Traded Modified Price Quantity Pairs.
  4. Q<sub>uhx</sub> is the maximum Quantity as part of the set of Traded Modified Price Quantity Pairs.
  5. MIUNuhm is the most recently calculated Modified Interconnector User Nomination as calculated following MSP Software Run m.
  6. MSQuhm is the Market Schedule Quantity calculated by MSP Software Run m.
- 9.20 If the most recently completed MSP Software Run in respect of a Trading Period is an Ex-Ante Indicative MSP Software Run or an Ex-Post Indicative MSP Software Run, the Market Operator shall calculate the Interconnector Unit Energy Traded Exposure (IUETE<sub>uhm</sub>) for each Interconnector Unit u and for each Trading Period h in the Trading Day as follows:

$$IUETEuhm = -1 * TPD \times \sum_j \min(0, (|Q_{uhmj}| - |Q_{uhm(j-1)}|) \times P_{uhmj} \times \left[1 + \frac{VAT_{uh}}{100}\right])$$

Where:

1. TPD is the Trading Period Duration.
2. i is the index of the ith Traded Modified Price Quantity Pair for Interconnector Unit u in Trading Period h, where the value of Q<sub>uhmi</sub> is greater than or equal to the Quantity associated with the Low Limit Quantity point and the value of Q<sub>uhmi</sub> is less than or equal to the Quantity associated with the High Limit Quantity point.
3. Q<sub>uhmi</sub> is the ith Traded Modified Quantity as part of a set of Traded Modified Price Quantity Pairs, where the value of Q<sub>uhmi</sub> is greater than or equal to the Quantity associated with the Low Limit Quantity point and the value of Q<sub>uhmi</sub> is less than or equal to the Quantity associated with the High Limit Quantity point.
4. P<sub>uhmi</sub> is the ith Traded Modified Price as part of a set of Traded Modified Price Quantity Pairs, where the value of Q<sub>uhmi</sub> is greater than or equal to the Quantity associated with the Low Limit Quantity point and the value of Q<sub>uhmi</sub> is less than or equal to the Quantity associated with the High Limit Quantity point.
5. VAT<sub>uh</sub> is the VAT Rate for Interconnector Unit u in Trading Period h.

9.21 If the most recently completed MSP Software Run in respect of a Trading Period is an Ex-Post Initial MSP Software Run, the Market Operator shall calculate the Interconnector Unit Energy Traded Exposure (IUETE<sub>uhm</sub>) for each Interconnector Unit u and for each Trading Period h in the Trading Day as follows:

$$IUETEuhm = -1 \times TPD \times \sum_i \left( (|Q_{uhmi}| - |Q_{uhm(i-1)}|) \times P_{uhmi} \times \left[1 + \frac{VAT_{uh}}{100}\right] \right)$$

Where:

1. TPD is the Trading Period Duration.
2. i is the index of the ith Traded Modified Price Quantity Pair for Interconnector Unit u in Trading Period h, where the value of Q<sub>uhmi</sub> is greater than or equal to the Quantity associated with the Low Limit Quantity point and the value of Q<sub>uhmi</sub> is less than or equal to the Quantity associated with the High Limit Quantity point.
3. Q<sub>uhmi</sub> is the ith Traded Modified Quantity as part of a set of Traded Modified Price Quantity Pairs, where the value of Q<sub>uhmi</sub> is greater than or equal to the Quantity associated with the Low Limit Quantity point and the value of Q<sub>uhmi</sub> is less than or equal to the Quantity associated with the High Limit Quantity point.
4. P<sub>uhmi</sub> is the ith Traded Modified Price as part of a set of Traded Modified Price Quantity Pairs, where the value of Q<sub>uhmi</sub> is greater than or equal to the Quantity associated with the Low Limit Quantity point and the value of Q<sub>uhmi</sub> is less than or equal to the Quantity associated with the High Limit Quantity point.
5. VAT<sub>uh</sub> is the VAT Rate for Interconnector Unit u in Trading Period h.

- 9.22 The Energy Traded Exposure (ETE<sub>ph</sub>) for each Participant p for each Trading Period h in the Trading Day shall be calculated by the Market Operator as follows:

$$ETE_{ph} = \sum_u IUETE_{uhm} \quad \forall u \text{ in } p \text{ for } m$$

Where:

1. IUETE<sub>uhm</sub> is the Interconnector Unit Energy Traded Exposure for Interconnector Unit u registered to Participant p, as calculated following MSP Software Run m.
2. '∀ u in p for m', refers to all Interconnector Units u registered to Participant p, in respect of MSP Software Run m.

### Calculation of Capacity Traded Exposure

- 9.23 By 21:00 on the day prior to the IDT Start Date, the Market Operator shall calculate the values of Interconnector Unit Capacity Traded Exposure (IUCTE<sub>uhm</sub>) and Capacity Traded Exposure (CTE<sub>ph</sub>) for each Trading Period h where Initial Settlement in respect of Capacity Payments has not been completed, utilising the results of the most recently completed MSP Software Run for the corresponding Trading Period, in accordance with paragraphs 9.24 to 9.26 inclusive, which shall be performed in sequence.
- 9.24 If the most recently completed MSP Software Run in respect of a Trading Period is an Ex-Ante Indicative MSP Software Run or Ex-Post Indicative MSP Software Run, the Market Operator shall calculate the Interconnector Unit Capacity Traded Exposure (IUCTE<sub>uhm</sub>) for each Interconnector Unit u and for each Trading Period h in the relevant Trading Day as follows:

$$IUCTE_{uhm} = -TPD \times \min\left(0, \left( MIUN_{uhm} \times ECPI_h \times \left[ 1 + \frac{VAT_{uh}}{100} \right] \right) \right)$$

Where:

1. TPD is the Trading Period Duration.
  2. MIUN<sub>uhm</sub> is the Modified Interconnector Unit Nomination for Interconnector Unit u in Trading Period h of MSP Software Run m.
  3. ECPI<sub>h</sub> is the Estimated Capacity Price for Interconnector Units in Trading Period h.
  4. VAT<sub>uh</sub> is the VAT Rate for Interconnector Unit u in Trading Period h.
- 9.25 If the most recently completed MSP Software Run in respect of a Trading Period is an Ex-Post Initial MSP Software Run, the Market Operator shall calculate the Interconnector Unit Capacity Traded Exposure (IUCTE<sub>uhm</sub>) for each Interconnector Unit u and for each Trading Period h in the relevant Trading Day as follows:

$$IUCTE_{uhm} = -1 \times TPD \times MSQ_{uhm} \times ECPI_h \times \left[ 1 + \frac{VAT_{uh}}{100} \right]$$

Where:

1. TPD is the Trading Period Duration.



2. MSQuhm is the Market Schedule Quantity for Interconnector Unit u in Trading Period h of MSP Software Run m.
  3. ECPIh is the Estimated Capacity Price for Interconnector Units in Trading Period h.
  4. VATuh is the VAT Rate for Interconnector Unit u in Trading Period h.
- 9.26 The Capacity Traded Exposure (CTE<sub>uph</sub>) for each Participant p for each Trading Period h in each Trading Day shall be calculated by the Market Operator as follows:

$$CTE_{ph} = \sum_u IUCTE_{uhm} \quad \forall u \text{ in } p \text{ for } m$$

Where:

1. IUCTE<sub>uhm</sub> is the Interconnector Unit Capacity Traded Exposure for Interconnector Unit u registered to Participant p, as calculated following MSP Software Run m.
2. ‘ $\forall u \text{ in } p \text{ for } m$ ’, refers to all Interconnector Units u registered to Participant p, in respect of MSP Software Run m.

#### Calculation of Interconnector Unit Traded Exposure

- 9.27 By 21:00 on the day prior to the IDT Start Date, the Market Operator shall calculate the Interconnector Unit Traded Exposure (IUTE<sub>pr</sub>) for each Participant p in respect of its Interconnector Units in the Settlement Risk Period r as follows:

$$IUTE_{pr} = \sum_{u \text{ in } p} \sum_{h \text{ in } d} \left( \sum_{d \text{ in } \delta} ETE_{ph} + \sum_{d \text{ in } \varepsilon} CTE_{ph} \right)$$

Where:

1. ETE<sub>ph</sub> is sum of the Energy Traded Exposure for all Interconnector Units u registered to Participant p in respect of Interconnector I for Trading Period h;
2. CTE<sub>ph</sub> is sum of the Capacity Traded Exposure for all Interconnector Units u registered to Participant p in respect of Interconnector I for Trading Period h;
3.  $\sum_{h \text{ in } d}$  is a summation over Trading Periods h in Settlement Day d;
4.  $\sum_{d \text{ in } \delta}$  is a summation over all Settlement Days d where Initial Settlement in respect of Energy Payments has not been performed in the un-invoiced Billing Period  $\delta$ ;
5.  $\sum_{d \text{ in } \varepsilon}$  is a summation over all Settlement Days d where Initial Settlement in respect of Capacity Payments has not been performed in the un-invoiced Capacity Period  $\varepsilon$ ;

6.  $\sum_{u \text{ in } p}$  is a summation over all Interconnector Units  $u$  registered to Participant  $p$ .

### Calculation of Total Fixed Credit Requirement

- 9.28 By 21:00 on the day prior to the IDT Start Date, the Market Operator shall calculate the Total Fixed Credit Requirement (TFCR<sub>pr</sub>) for each Participant  $p$  in Settlement Risk Period  $r$ , as follows:

$$TFCR_{pr} = \sum_{v \text{ in } p} FCRS_y + \sum_{u \text{ in } p} FCRG_y$$

Where:

1. FCRS<sub>y</sub> is the Fixed Credit Requirement in Year  $y$  for Participant  $p$  in respect of its Supplier Units  $v$  Settlement Risk Period  $r$ ;
  2. FCRG<sub>y</sub> is the Fixed Credit Requirement in Year  $y$  for Participant  $p$  in respect of its Generator Units  $u$  in Settlement Risk Period  $r$ ;
  3.  $\sum_{v \text{ in } p}$  is a summation over all Supplier Units  $v$  registered to Participant  $p$ ;
  4.  $\sum_{u \text{ in } p}$  is a summation over all Generator Units  $u$  registered to Participant  $p$ .
- 9.29 The values of the Total Fixed Credit Requirement (TFCR<sub>pr</sub>) as calculated in paragraph 9.28 shall apply from the first Trading Period of the IDT Start Date until such time as the values are recalculated.

### Calculation of Available Credit Cover

- 9.30 By 21:00 on the day prior to the IDT Start Date, the Market Operator shall calculate the Available Credit Cover (ACC<sub>pr</sub>) for each Participant  $p$  in Settlement Risk Period  $r$  as follows:

$$ACC_{pr} = PCC_{pr} - \left( RCCS_{pr} + RCCG_{pr} + IUTE_{pr} + TFCR_{pr} \right)$$

Where:

1. PCC<sub>pr</sub> is the Posted Credit Cover for Participant  $p$  in Settlement Risk Period  $r$ ;
2. RCCS<sub>pr</sub> is the Required Credit Cover for Participant  $p$  in respect of its Supplier Units in Settlement Risk Period  $r$ ;
3. RCCG<sub>pr</sub> is the Required Credit Cover for Participant  $p$  in respect of its Generator Units in Settlement Risk Period  $r$ ;
4. IUTE<sub>pr</sub> is the Interconnector Unit Traded Exposure for Participant  $p$  in respect of its Interconnector Units in Settlement Risk Period  $r$ ;
5. TFCR<sub>pr</sub> is the Total Fixed Credit Requirement for Participant  $p$  in respect of its Generator Units and Supplier Units in Settlement Risk Period  $r$ .

- 9.31 The values of the Available Credit Cover (ACCpr) as calculated in paragraph 9.30 shall apply from first Trading Period of the IDT Start Date until such time as the values are recalculated.

### Calculation of Required Credit Cover

- 9.32 After 17:00 and by 21:00, on the day prior to the IDT Start Date, the Market Operator shall calculate the Required Credit Cover for each Participant in accordance with paragraphs 6.186, 6.187A to 6.231, 9.33, 9.34 and 9.35.
- 9.33 The Market Operator shall calculate the Actual Generator Exposure (AGE<sub>pf</sub>) for Participant p in respect of its Generator Units in the Actual Exposure Period f as follows:

$$AGE_{pf} = \left( \sum_{b \in f} (IEP_{pb} + BPCCG_{pb}) + \sum_{c \in f} (ICP_{pc} + CAPCCG_{pc}) \right) + \left( \sum_{d \in \pi} \left( \sum_{u \in p} DAYPU_{ud} - \sum_{a \in p} \sum_{h \in d} SSREA_{aph} \right) \right) + \sum_{d \in \delta} \left( \sum_{u^* \in p} DAYPU_{u^*d} \right) + \left( \sum_{d \in q} \left( \sum_{u \in p} \sum_{h \in d} CP_{uh} - \sum_{a \in p} \sum_{h \in d} SSRCA_{aph} \right) \right) + \sum_{d \in \varepsilon} \left( \sum_{u \in p} \sum_{h \in d} ICP_{uh} \right)$$

Where:

1. IEP<sub>pb</sub> is the Invoice Energy Payment for Energy to Participant p for its registered Generator Units in Billing Period b applicable if the relevant Billing Period Invoice is issued but not paid;
1. BPCCG<sub>pb</sub> is the Billing Period Currency Charge to Participant p for the relevant Billing Period b;
2. ICP<sub>pc</sub> is the Invoiced Capacity Payment to Participant p for its registered Generator Units for Capacity Period c applicable if the relevant Capacity Period Invoice is issued but not paid;
3. CAPCCG<sub>pc</sub> is the Capacity Period Currency Charge to Participant p for the relevant Capacity Period c;
4. DAYPU<sub>ud</sub> is the Total Payments to Generator Unit u that is not an Interconnector Unit for Settlement Day d;
5. DAYPU<sub>u\*d</sub> is the Total Payments to Interconnector Unit u\* for Settlement Day d;
6. SSREA<sub>aph</sub> is the Settlement Reallocation Energy Amount for Participant p for its registered Generator Units for Trading Period h defined in the Settlement Reallocation Agreement a;
7. CP<sub>uh</sub> is the Capacity Payment for Generator Unit u (that is not an Interconnector Unit) in Trading Period h;
8. ICP<sub>uh</sub> is the Capacity Payment for Interconnector Unit u in Trading Period h;
9. SSRCA<sub>aph</sub> is the Settlement Reallocation Capacity Amount for Participant p for its registered Supplier Units for Trading Period h defined in Settlement Reallocation Agreement a;

10.  $\sum_{b \in f}$  is a summation over all Billing Periods b that are Invoiced but not paid in Actual Exposure Period f;
11.  $\sum_{c \in f}$  is a summation over all Capacity Periods c that are Invoiced but not paid in Actual Exposure Period f;
12.  $\sum_{d \in \pi}$  is a summation over all Settlement Days d of the un-invoiced Billing Period  $\pi$ ;
13.  $\sum_{d \in \delta}$  is a summation over all Settlement Days d where Initial Settlement in respect of Energy Payments has been performed in the un-invoiced Billing Period  $\delta$ ;
14.  $\sum_{d \in \varepsilon}$  is a summation over all Settlement Days d where Initial Settlement in respect of Capacity Payments has been performed in the un-invoiced Capacity Period  $\varepsilon$ ;
15.  $\sum_{h \in d}$  is a summation over Trading Periods h in Settlement Day d;
16.  $\sum_{a \in p}$  is a summation of all Settlement Reallocation Agreements a registered to Participant p in respect of its registered Generator Units;
17.  $\sum_{d \in q}$  is a summation over all Settlement Days d of the un-invoiced Capacity Period q;
18.  $\sum_{u \in p}$  is a summation over all Generator Units that are not Interconnector Units registered to Participant p;
19.  $\sum_{u^* \in p}$  is a summation over all Interconnector Units registered to Participant p.

9.34 The Market Operator shall ensure that no Interconnector Units u registered to a Participant p shall be included in the calculation of Undefined Exposure (UPEGpd) for each New Participant or Adjusted Participant.

9.35 The Market Operator shall calculate the Required Credit Cover (RCCpr) for each Participant p in respect of its Units in respect of the Settlement Risk Period r as follows:

$$RCCpr = \max \{ RCCSpr + RCCGpr + IUTEpr \} TFCRpr$$

Where:

1. RCCSpr is the Required Credit Cover for Participant p in respect of its Supplier Units in Settlement Risk Period r;
2. RCCGpr is the Required Credit Cover for Participant p in respect of its Generator Units in Settlement Risk Period r;

3. IUTE<sub>pr</sub> is the Interconnector Unit Traded Exposure for Participant p in respect of its Interconnector Units in Settlement Risk Period r;
4. TFCR<sub>pr</sub> is the Total Fixed Credit Requirement for Participant p in Settlement Risk Period r.

### **Provision of Required Credit Cover report**

- 9.36 Following the calculation of the Available Credit Cover (ACC<sub>p</sub>) and Required Credit Cover and by 21:00 on the day prior to the IDT Start Date, as set out in paragraphs 9.30 and 9.35 respectively, the Market Operator shall issue a Required Credit Cover report to each Participant.

In this Section:

<b>Available Credit Cover (ACC)</b>	means in respect of a Participant, the amount by which the Posted Credit Cover exceeds the sum of the Required Credit Cover, Interconnector Unit Traded Exposure and Total Fixed Credit Requirement.
<b>Capacity Traded Exposure (CTE)</b>	means the credit risk exposure, adjusted for VAT, in respect of Capacity Payments for a Participant.
<b>EA1 Gate Window</b>	means a period of time during which Data Transactions may be submitted and Accepted for use in the associated MSP Software Run.
<b>EA2 Gate Window</b>	means a period of time during which Data Transactions may be submitted and Accepted for use in the associated MSP Software Run.
<b>Energy Traded Exposure (ETE)</b>	means the credit risk exposure, adjusted for VAT, in respect of Energy Payments for a Participant.
<b>Estimated Capacity Price for Interconnectors (ECPI)</b>	means the price determined by the Market Operator for use in the calculation of Interconnector Unit Capacity Offered Exposure and Interconnector Unit Capacity Traded Exposure for Interconnector Units.
<b>High Limit Quantity (HLQ)</b>	means in respect of an Interconnector Unit and for each Trading Period in the Trading Window for MSP Software Run m, the quantity as defined in paragraph 9.19.
<b>IDT Start Date</b>	means the Trading Day from which the SEM Intra-Day Trading arrangements apply, as determined by the Regulatory Authorities or other Competent Authority as appropriate.
<b>Interconnector Unit Capacity Traded Exposure (IUCTE)</b>	means the credit risk exposure, adjusted for VAT, in respect of Capacity Payments for an Interconnector Unit in accordance with paragraphs 9.24 and 9.25.
<b>Interconnector Unit Energy Traded Exposure (IUETE)</b>	means the credit risk exposure, adjusted for VAT, in respect of Energy Payments for an Interconnector Unit in accordance with paragraphs 9.20 and 9.21.

<b>Interconnector Unit Traded Exposure (IUTE)</b>	means the total credit risk exposure for a Participant in respect of its Interconnector Units, as calculated in accordance with paragraph 9.27.
<b>Low Limit Quantity (LLQ)</b>	means in respect of an Interconnector Unit and for each Trading Period in the Trading Window for MSP Software Run m, the quantity as defined in paragraph 9.18.
<b>MSP Software Run</b>	means the operation of the MSP Software used by the Market Operator to determine Market Schedule Quantities for each Price Maker Generator Unit and to determine the System Marginal Price for each Trading Period as provided for in Appendix N.
<b>Offered Modified Price</b>	means the price associated with a specified Quantity within an Offered Modified Price Quantity Pair.
<b>Offered Modified Price Quantity Pairs</b>	means a set of Price Quantity Pairs for Interconnector Units as derived from Accepted Commercial Offer Data by the Market Operator.
<b>Offered Modified Quantity</b>	means the quantity of Output specified within an Offered Price Quantity Pair.
<b>Price Axis Crossing Point</b>	means a temporary Price Quantity Pair used in the calculation of traded credit exposure, reflecting the point at which the Accepted Price Quantity Pairs or Offered Modified Price Quantity Pairs cross the Price axis in accordance with paragraph 9.17.
<b>Quantity Axis Crossing Point</b>	means a temporary Price Quantity Pair used in the calculation of traded credit exposure, reflecting the point at which the Accepted Price Quantity Pairs or Offered Modified Price Quantity Pairs cross the Quantity axis in accordance with paragraph 9.16.
<b>Traded Modified Price Quantity Pairs</b>	means a set of Price Quantity Pairs for Interconnector Units, as determined in accordance with paragraphs 9.13 to 9.19.
<b>WD1 Gate Window</b>	means a period of time during which Data Transactions may be submitted and Accepted for use in the associated MSP Software Run.

## **LIST OF VARIABLES, APPLICABLE SUBSCRIPTS AND UNITS**

In this List of Variables, applicable subscripts and units, the description of the variables applies except where expressly provided otherwise in the Code.

Where variables do not have a time subscript they shall be treated as applying for every Trading Day between a recorded start date and end date.

Name	Term	Subscripts	Units	Description
Available Credit Cover	ACC	pr	£ or €	The amount of Credit Cover for Participant p posted and available to cover potential credit exposure in respect of Interconnector Unit trading in the Pool.
Capacity Traded Exposure	CTE	ph	£ or €	The credit risk exposure, adjusted for VAT, in respect of Capacity Payments for a Participant, as calculated following each MSP Software Run.
Daily Average Capacity Payments Generation Price	DACPGP	d	€/MWh	Arithmetic average of Capacity Payments Generation Prices in a given Settlement Day
Estimated Capacity Price for Interconnectors	ECPI	h	€/MWh	Estimated Capacity Price for Interconnectors.
Energy Traded Exposure	ETE	ph	£ or €	The credit risk exposure, adjusted for VAT, in respect of Energy Payments for a Participant, as calculated following each MSP Software Run.
High Limit Quantity	HLQ	uhm	MW	A value set as part of the calculation of Modified Price Quantity Pairs for Interconnector Units.
Interconnector Unit Capacity Traded Exposure	IUCTE	uhm	£ or €	The credit risk exposure, adjusted for VAT, in respect of Capacity Payments for an Interconnector Unit u as calculated following each MSP Software Run.
Interconnector Unit Energy Traded Exposure	IUETE	uhm	£ or €	The credit risk exposure, adjusted for VAT, in respect of Energy Payments for an Interconnector Unit u as calculated following each MSP Software Run.

<b>Interconnector Unit Traded Exposure</b>	<b>IUTE</b>	<b>pr</b>	<b>£ or €</b>	<b>The credit risk exposure for a Participant in respect of its Interconnector Units, calculated following each MSP Software Run.</b>
<b>Low Limit Quantity</b>	<b>LLQ</b>	<b>uh</b>	<b>MW</b>	<b>In respect of an Interconnector Unit and for each Trading Period in the Trading Window for MSP Software Run m, the quantity as defined in paragraph 9.18.</b>
<b>Modified Price</b>	<b>P</b>	<b>uhi</b>	<b>€/MWh</b>	<b>A Quantity derived from Commercial Offer Data, determined in accordance with paragraph 9.13.</b>
<b>Price Axis Crossing Point</b>	<b>PACP</b>	<b>uhi</b>	<b>€/MWh</b>	<b>A temporary Price Quantity Pair used in the calculation of Offered Exposure or Traded Exposure, reflecting the point at which the Accepted Price Quantity Pairs or Offered Modified Price Quantity Pairs cross the Price axis.</b>
<b>Posted Credit Cover</b>	<b>PCC</b>	<b>pr</b>	<b>£ or €</b>	<b>Posted Credit Cover amount for Participant p in Settlement Risk Period r.</b>
<b>Modified Quantity</b>	<b>Q</b>	<b>uhi</b>	<b>MW</b>	<b>A Quantity derived from Commercial Offer Data, determined in accordance with paragraph 9.13.</b>
<b>Quantity Axis Crossing Point</b>	<b>QACP</b>	<b>uhi</b>	<b>€/MWh</b>	<b>A temporary Price Quantity Pair used in the calculation of Offered Exposure or Traded Exposure, reflecting the point at which the Accepted Price Quantity Pairs or Offered Modified Price Quantity Pairs cross the Quantity axis.</b>
<b>Total Fixed Credit Requirement</b>	<b>TFCR</b>	<b>pr</b>	<b>£ or €</b>	<b>The total Fixed Credit Requirement for Participant p in respect of its Generator Units u and Supplier Units v.</b>
<b>VAT</b>	<b>VAT</b>	<b>uh</b>		<b>The applicable VAT rate for Interconnector Unit u in Trading Period h.</b>