

The Single Electricity Market (SEM)

Trading and Settlement Code

Version 1.3

Draft Legal Text

Final Consultation Document

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1. INTRODUCTION AND INTERPRETATION

INTRODUCTION

- 1.1 The Single Electricity Market (“SEM”) was developed by the Commission for Energy Regulation and the Northern Ireland Authority for Energy Regulation pursuant to a Memorandum of Understanding dated 23 August 2004 and the subsequent All-Island Energy Market Development Framework agreed in November 2004 between Noel Dempsey TD, the Minister for Communications, Marine and Natural Resources and Barry Gardiner MP, the Minister with Responsibility for Enterprise, Trade and Investment in Northern Ireland. The Code was developed as part of the process of establishing the SEM and constitutes the trading arrangements and Trading and Settlement Code for the SEM pursuant in Northern Ireland to section 23 of the Northern Ireland (Miscellaneous Provisions) Act 2006 and the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007, and in Ireland to section 9BA(1) of the Electricity Regulation Act 1999 (Ireland) and as designated pursuant to regulations made under Section 9BA(2)(a) of the Electricity Regulation Act 1999 (Ireland). The SEM incorporates the Pool for trading between participating generators and suppliers. It is a condition of the Market Operator Licences that the Market Operator shall establish and at all times maintain in force a code which
1. sets out the terms of the trading and settlement arrangements for the sale and purchase of wholesale electricity in the Pool; and
 2. is designed to facilitate the achievement of the objectives set out in paragraph 1.3 below¹.
- 1.2 This Code sets out the trading and settlement rules and procedures for participation in the Pool.

Code Objectives

- 1.3 The aim of this Code is to facilitate the achievement of the following objectives:
1. to facilitate the efficient discharge by the Market Operator of the obligations imposed upon it by its Market Operator Licence;
 2. to facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner;
 3. to facilitate the participation of electricity undertakings engaged in the generation, supply or sale of electricity in the trading arrangements under the Single Electricity Market;
 4. to promote competition in the electricity wholesale market;
 5. to provide transparency in the operation of the Single Electricity Market;

¹ This paragraph reflects the current drafting in the Market Operator Licences and may be subject to change in accordance with the finalised version of the Market Operator Licences

6. to ensure no undue discrimination between persons who are parties to the Single Electricity Market Trading and Settlement Code; and
 7. to promote the short-term and long-term interests of consumers of electricity with respect to price, quality, reliability, and security of supply of electricity.
- 1.4 Paragraphs 1.1 to 1.3 of this Section 1 are intended for the purpose of providing information only and, without prejudice to the rights, duties and obligations set out in the Licences and legislation referred to therein, are not intended of themselves and should not be construed so as to create legally binding obligations as between or impose rights and duties on the Parties, provided that the Modifications Committee shall be required to have regard to the Code Objectives in accordance with 2.110 and any Dispute Resolution Board shall be required to have regard to the Code Objectives in accordance with paragraph 2.252
- 1.5 Intentionally blank.
- 1.6 Intentionally blank.

Appendices and Agreed Procedures

- 1.7 The Appendices and the Agreed Procedures, as may be amended or modified, shall be construed as and form part of this Code and shall be subject to the terms of this Code. The Agreed Procedures set out the detail of procedures to be followed by Parties in performing obligations and functions under this Code.
- 1.8 Appendix L describes, sets out and delimits the scope of, each of the Agreed Procedures.

INTERPRETATION

Interpretation

- 1.9 In this Code, the following interpretations shall apply unless the context requires otherwise:
1. the Table of Contents, and any indexes and headings in this Code, are for ease of reference only and do not form part of the contents of this Code and do not and shall not affect its interpretation;
 2. words in the singular shall include the plural and vice versa and the masculine gender shall include the feminine and neuter;
 3. the word “including” and its variations are to be construed without limitation;
 4. any reference to any legislation, primary or secondary, in this Code includes any statutory interpretation, amendment, or modification, re-enactment or consolidation of any such legislation and any regulations or orders made thereunder and any general reference to any legislation includes any regulations or orders made thereunder;

5. any references to Sections, paragraphs, Appendices and Agreed Procedures are references to Sections, paragraphs, Appendices and Agreed Procedures of this Code as amended or modified from time to time in accordance with the provisions of this Code ;
6. any reference to another agreement or document, or any deed or other instrument is to be construed as a reference to that other agreement, or document, deed or other instrument as lawfully amended, modified, supplemented, substituted, assigned or novated from time to time;
7. any reference to a day is to be construed as a reference to a calendar day except where provided otherwise, and any reference to a year is to be construed as a reference to a period of 12 months;
8. any reference to a time is to be construed as a reference to the time prevailing in Belfast;
9. where any obligation is imposed on any Party pursuant to this Code and is expressed to require performance within a specified time limit that obligation shall, where appropriate, continue to be binding and enforceable after that time limit if the Party fails to perform that obligation within that time limit (but without prejudice to all rights and remedies available against that person by reason of that person's failure to perform within the time limit);
10. zero is to be treated as a positive, whole number;
11. capitalised words and phrases, acronyms, abbreviations and subscripts have the meaning given to them in the Glossary;
12. Where a specified number of days is expressed to elapse or expire from or after the giving of a notice or issue or making available of a document before an action may be taken or by which an action is required to be taken then unless explicitly stated otherwise, the day on which the notice is given or issued or the document is made available shall not be counted in the reckoning of the period;
13. a reference to a "person" includes any individual, partnership, firm, company, corporation (statutory or otherwise), joint venture, trust, association, organisation or other entity, in each case and whether or not having separate legal personality;
14. references to a Participant shall be construed as a reference to the relevant Party in its capacity as registrant of the relevant Units. Any obligation expressed to be on a Party shall, where appropriate, be construed as an obligation on that Party in respect of each of its Participants;
15. where this Code requires data to be published by the Market Operator, it shall be made publicly available (which, for the avoidance of doubt means available to all members of the public and not only to Parties) in a format that readily lends itself to processing by standard computer and analysis tools, through an easily accessible public interface and the terms "publish", "publication" and "published" shall be construed accordingly;
16. Intentionally blank.

17. where this Code requires the Market Operator to publish information and no timeline is specified for such publication, it shall be required to publish such information as soon as reasonably practicable; and
18. in the event of any conflict between algebraic formulae and English language text in Sections 4 to 6, the algebraic formula shall apply, save in the case of manifest error in the algebraic formula.

2. LEGAL AND GOVERNANCE

GOVERNING LAW

- 2.1 This Code and any disputes arising under, out of, or in relation to the Code shall be interpreted, construed and governed in accordance with the laws of Northern Ireland.

JURISDICTION

- 2.2 Subject to the provisions relating to the Dispute Resolution Process, the Parties hereby submit to the exclusive jurisdiction of any of the Courts of Ireland or Northern Ireland for all disputes arising under, out of, or in relation to the Code.

TERM

- 2.3 The Code shall commence on the Commencement Date and shall have no fixed duration.

PRIORITY

- 2.4 In the event of any conflict between any Party's obligation pursuant to any Legal Requirements and the Code, such conflict shall be resolved according to the following order of priority:
1. requirements under Applicable Laws;
 2. any applicable requirement, direction, determination, decision, instruction or rule of any Competent Authority;
 3. applicable Licence;
 4. Grid Code applicable to the relevant Unit concerned;
 5. Metering Code applicable to the relevant Unit concerned;
 6. the Transitional Agreement (for the Transitional Term only)
 7. this Code (subject to paragraph 2.5 below).
- 2.4A If and for so long as a Party complies with the Legal Requirements set out in paragraph 2.4.1 to 2.4.5, it shall be relieved of its obligations under the Code to the extent that and for so long as the performance of such obligations is in conflict with any of the relevant Legal Requirements taking priority over the Code, provided that such conflict does not arise as a result of a failure of the relevant Party to procure, comply with or maintain any consent, permission, licence or licence in accordance with paragraph 2.88.2.
- 2.4B A Party shall only be relieved of its obligations pursuant to paragraph 2.4A for so long as and to the extent that resolution of the conflict is not within the reasonable control of the relevant party
- 2.4C Until such time as such conflict is resolved through the Modifications Process or otherwise, the applicable obligations under the Legal Requirements set out in paragraphs 2.4.1 to 2.4.5 shall prevail over the provisions of the Code for each Party or Unit in relation to which they are in conflict.
- 2.5 It is not intended that there be any inconsistency or conflict between the Sections, Appendices or Agreed Procedures of the Code. However, in the

event of any inconsistency or conflict, such inconsistency shall be resolved in the following order of priority:

1. Section 7;
2. Sections 1, 2, 3, 4, 5 and 6 and the Glossary;
3. Appendices; and
4. Agreed Procedures.

2.5A The provisions of paragraph 2.5 shall be subject to any express provision to the contrary in the Code.

2.5B Intentionally blank.

2.5C Intentionally blank.

PARTIES AND ACCESSION

2.6 A person may only become a Party to the Code in accordance with the terms of the Code and the Framework Agreement.

2.7 The Market Operator, the System Operators, the Distribution System Operators, the Transmission Asset Owners and the Meter Data Providers shall be Parties and shall be the original signatories to the Framework Agreement.

2.8 Any person that is at the relevant time an adhering party to the Framework Agreement, in accordance with and subject to the Accession Process outlined below, shall be a Party to the Code.

2.9 Intentionally blank.

Accession Process

2.10 In order to become a Party, a person (the "Applicant") must complete and sign an application form which shall be in the form set out in Agreed Procedure 1 ("Participant and Unit Registration and Deregistration") and send it to the Market Operator. The application form specifies all conditions which the Applicant must meet to become a Party which include that the Applicant shall;

1. pay the Accession Fee; and
2. execute the Accession Deed, when provided, to adhere to the Framework Agreement.

2.10A The Accession Fee shall be non-refundable except where an application is rejected on the basis that the Regulatory Authorities instruct the Market Operator that the Applicant should not be permitted to accede to the Code, notwithstanding that all other conditions for Accession would otherwise be complied with.

2.11 Where the Market Operator receives an application from an Applicant, it must within 10 Working Days of receiving the application send a notice to the Applicant informing the Applicant of any further information or clarification which is required in relation to the application or where the

application is incomplete. The Market Operator shall provide details of what clarification is required or where the application is incomplete.

- 2.12 If the Market Operator does not receive the clarification or the additional information required within 20 Working Days of the Applicant having been informed by the Market Operator of the need for such clarification, the Applicant shall be deemed to have withdrawn the application. An Applicant may request additional time to provide any clarification or additional information and the Market Operator shall not unreasonably withhold consent to any such request.
- 2.13 On receipt of a completed application form and any clarification or additional information requested by the Market Operator and provided that the Applicant fulfils the conditions for accession specified in the application form, the Market Operator shall within 10 Working Days of final receipt of all required information in the Accession Process provide the Applicant with an Accession Deed. The Applicant shall be required to submit an executed Accession Deed within 20 Working Days of receipt. An Applicant may request additional time to submit an executed Accession Deed and the Market Operator shall not unreasonably withhold consent to any such request, provided that the date of submission of the executed Accession Deed shall be earlier than the effective date specified in the Accession Deed.
- 2.14 Following execution of an executed Accession Deed in accordance with paragraph 2.13, the Applicant shall become a Party on the date specified in the Accession Deed.
- 2.14A The Market Operator shall publish the fact of the accession of each new Party to the Code.

DE MINIMIS PARTICIPATION

- 2.14B The De Minimis Threshold for the purposes of the Code shall be a Maximum Export Capacity of 10MW .
- 2.15 A Party shall register every Generator which it owns or ultimately controls, which has Maximum Export Capacity greater than or equal to the De Minimis Threshold and which is covered by a single Connection Agreement, as a Generator Unit under the Code. If a Party is permitted, pursuant to the consent of the Regulatory Authorities, to appoint an Intermediary in respect of a Generator, it shall satisfy the requirements of this paragraph 2.15 for that Generator if it procures the registration of the Generator by the relevant Intermediary in accordance with the Code.
- 2.15A A Party which has been authorised by the Unit Owner, under a Form of Authority and in accordance with the consent of the Regulatory Authorities, to act as Intermediary in respect of any Generator which has Maximum Export Capacity greater than or equal to the De Minimis Threshold and which is covered by a single Connection Agreement, shall register such Generator as a Generator Unit in accordance with the Code.
- 2.16 A Party shall register every Generator it is licensed or authorised to operate which is not covered by a Connection Agreement but which is located on a Contiguous Site, having an overall Maximum Export Capacity greater than or equal to the De Minimis Threshold, as a Generator Unit under the Code. If a Party is permitted, pursuant to the consent of the Regulatory Authorities, to appoint an Intermediary in respect of a Generator to which this paragraph applies, it shall satisfy the requirements of this paragraph 2.16 for that

Generator if it procures the registration of the Generator by the relevant Intermediary in accordance with the Code.

- 2.16A A Party which has been authorised by the Unit Owner, under a Form of Authority and in accordance with the consent of the Regulatory Authorities, to act as Intermediary in respect of any Generator which is not covered by a Connection Agreement but which is located on a Contiguous Site, having an overall Maximum Export Capacity greater than or equal to the De Minimis Threshold shall register such Generator as a Generator Unit in accordance with the Code.
- 2.17 A Party may register any Generator which it owns or ultimately legally controls and which is covered by a single Connection Agreement, or is located on a Contiguous Site which does not have a Connection Agreement, which has Maximum Export Capacity less than the De Minimis Threshold, as a Generator Unit under the Code. If a Party is permitted, pursuant to the consent of the Regulatory Authorities, to appoint an Intermediary in respect of a Generator to which this paragraph applies, it may procure registration of the Generator by the relevant Intermediary in accordance with the Code.
- 2.17A A Party which has been authorised by the Unit Owner, under a Form of Authority and in accordance with the consent of the Regulatory Authorities, to act as Intermediary in respect of any Generator which is covered by a single Connection Agreement, or is located on a Contiguous Site which does not have a Connection Agreement, which has Maximum Export Capacity less than the De Minimis Threshold may register such Generator as a Generator Unit in accordance with the Code.
- 2.18 Demand Side Units shall not be required to be registered under paragraph 2.15 or 2.16.

Participation and Registration of Units

- 2.19 In order for a Party to participate in the Pool in respect of any Unit, a Party must register that Unit in accordance with the registration procedure provided for in paragraphs 2.20 to 2.76.
- 2.19A On or prior to its first application to register a Unit, a Party (or Applicant, as applicable) shall complete and return a First Participation Information Notice.
- 2.20 An Applicant may submit an application to register Units prior to becoming a Party provided that registration of Units shall not take effect until the Applicant has become a Party.
- 2.20A In addition to the requirements set out in paragraph 2.20, a Party (or Applicant as applicable) shall submit with its Participation Notice
 - 2.20A1 such documents to be produced and completed by the Party (or Applicant, as applicable) as the Market Operator requires for the purposes of the registration of a charge by the Market Operator over the SEM Capacity Clearing Accounts and SEM Trading Clearing Accounts in favour of the Market Operator as agent and trustee for all relevant Participants interested in those accounts; and
 - 2.20A2 such documents to be produced and completed by the Party as the Market Operator requires for the purposes of the registration of a charge by the Market Operator over any SEM Collateral Reserve Account in favour of the Market Operator as agent and trustee for all relevant Participants

- 2.21 On registration of a Unit, a Party shall become the Participant in respect of that Unit.
- 2.22 A Party (or an Applicant as applicable) shall apply to register any Units by completing a Participation Notice in respect of such Units which shall include the following information:
1. whether the Unit concerned is a Generator Unit or Supplier Unit;
 2. if the Unit is a Generator Unit, details of the Trading Site to which that Unit shall be registered;
 3. the Currency Zone of the Unit
 4. the name address and contact details (including email and fax) of the Participant to which the Unit is to be registered;
 5. the billing address of the Participant;
 6. full details of the bank account to which amounts payable by the Market Operator to that Participant shall be paid;
 7. the Proposed Effective Date, being the Trading Day on which, from the start of the first Trading Period on that Trading Day, the Party intends that trading by that Unit shall be effective. The Proposed Effective Date shall be no earlier than 23 Working Days from the date the Participation Notice is sent to the Market Operator in accordance with paragraph 2.23;
 8. the Communications Channels which the Participant designates pursuant to paragraph 3.4 for use in respect of that Unit;
 9. evidence of compliance with metering requirements;
 10. evidence that all necessary Connection Agreements are in place, valid and effective;
 11. evidence that all necessary Use of System Agreements are in place, valid and effective;
 12. evidence that the Party (or on registration by an Intermediary, the appointing Generator) holds a valid Licence (including an authorisation or exemption) to generate or supply electricity in the relevant Jurisdiction(s) (as appropriate) and details of all other Licences (including authorisations or exemptions relevant to the SEM);
 13. VAT details for all relevant Jurisdictions;
 14. the participation roles which the Party (or Applicant) has or intends to have and the Effective Date from which it has or intends to have such capacity;
 15. the identity of any other Party which is an Affiliate of that Party;
 16. in the case of a relevant Generator Unit, where no Trading Site Supplier Unit exists or is proposed, the identity of the Participant that it is intended shall record the Associated Supplier Unit;
 17. initial Default Data, that may be used by the Market Operator in relation to that Unit pursuant to paragraphs 3.48 and 3.49; and
 18. such other Registration Data as may be required by the Market Operator pursuant to Appendix B and Agreed Procedure 1 "Participant and Unit Registration and Deregistration".

- 2.23 The Market Operator shall publish details of the Accession and Participation Fees.
- 2.23A A Party (or an Applicant as applicable) shall send the required Participation Fees with the Participation Notice to the Market Operator. The Market Operator shall specify the components of the Participation Fee that will apply in respect of each Participation Notice.
- 2.23B If a Participation Notice is withdrawn or rejected, the Market Operator shall refund those elements of the Participation Fee for which it has no incurred costs.
- 2.23C The Market Operator shall refund the relevant Participation Fee in its entirety if the Regulatory Authorities direct that the Party (or Applicant, as applicable) should not be permitted to register the relevant Unit or Units.
- 2.24 Intentionally blank.
- 2.25 Where a Party (or an Applicant, as applicable) applies to register Units in more than one Currency Zone, it shall register as a separate Participant for Units for each Currency Zone.
- 2.26 In the event that a Party (or an Applicant, as applicable) does not apply to register as a separate Participant in relation to Units where those Units are located in different Currency Zones, it shall be automatically deemed to be a separate Participant in respect of the Units located in each Currency Zone for the purposes of the Code. The Market Operator shall in such circumstances notify the Participants of the requisite Participation Fees and the Party (or Applicant, as applicable) shall, within 3 Working Days, pay the requisite Participation Fees for each deemed Participant.
- 2.27 A Party (or an Applicant as applicable) shall not register as more than one Participant save as provided for in paragraph 2.25, or as permitted with the prior written consent of the Regulatory Authorities. Any such consent must be submitted with the relevant Participation Notice.
- 2.28 Where the Market Operator receives a Participation Notice from a Party (or an Applicant, as applicable) it must, within 10 Working Days of receiving the Participation Notice, send a notice to the Party (or Applicant, as applicable) informing it of any further information or clarification which is required in relation to the Participation Notice or where the Participation Notice is incomplete. The Market Operator will provide details of what clarification is required or where the Participation Notice is incomplete.
- 2.29 If the Market Operator does not receive the clarification or the additional information required from the Party (or the Applicant as applicable) within 20 Working Days of having been informed by the Market Operator of the need for such clarification or additional information, the Party (or the Applicant as applicable) shall be deemed to have withdrawn the Participation Notice and the Market Operator shall refund the Participation Fees. An Applicant may request additional time to submit any clarification or additional information and the Market Operator shall not unreasonably withhold consent to any such request.
- 2.30 On receipt of a Participation Notice, the Participation Fees and any additional clarification or information requested by the Market Operator from a Party (or an Applicant, as applicable) within the timelines provided for in paragraph 2.29, the Market Operator shall within 5 Working Days send a notice to the Party (or Applicant as applicable) informing the Party (or Applicant as applicable) of any conditions for registration of each Unit which

was the subject of the Participation Notice from the following list as applicable:

1. the amount of Credit Cover required to be put in place by the proposed Participant prior to the Effective Date in respect of each such Unit calculated with effect from the Effective Date;
2. any qualification requirements pursuant to Agreed Procedure 3 “Communication Channel Qualification” for the Participant’s designated Communications Channels;
3. the requirement for the satisfactory provision of the Registration Data set out in Agreed Procedure 1 “Participant and Unit Registration and Deregistration” (if not already provided); and
4. the requirement that the relevant facilities are Connected to the Distribution System or Transmission System.

2.30A If a Party fails to satisfy any of the conditions for participation specified by the Market Operator under paragraphs 2.30.2 to 2.30.4 within 20 Working Days of being notified of such conditions by the Market Operator, its Participation Notice (or such shorter period as specified by the Market Operator) shall be deemed to be withdrawn and the Market Operator shall refund the relevant portion of the Participation Fees. An Applicant may request additional time to satisfy any of the conditions under paragraph 2.30 and the Market Operator shall not unreasonably withhold consent to any such request.

2.30B The Market Operator shall be entitled to share Registration Data received from a Party with the System Operators and the Meter Data Providers for the purpose of processing registration and facilitating participation in respect of the relevant Units. All Parties shall co-operate with and provide such assistance as the Market Operator may reasonably request for these purposes.

2.31 Notwithstanding any date specified by the Party (or Applicant as applicable) in its Participation Notice, registration of Units shall not become effective until such time as the Market Operator specifies in accordance with paragraph 2.32 that the Party concerned:

1. has supplied all information required and satisfied all such conditions as notified to the Party (or Applicant, as applicable) pursuant to paragraphs 2.30.2 to 2.30.4;
2. has paid the Participation Fees; and
3. is not otherwise in breach of the Code or the Framework Agreement.

2.32 Where the conditions specified in paragraph 2.31 have been achieved by the Party (or Applicant) concerned, the Market Operator shall issue a Commencement Notice to the Participant as soon as reasonably practicable. The Commencement Notice shall specify the Effective Date, being the Trading Day on which, from the start of the first Trading Period on that Trading Day, registration of the Units concerned shall be effective, provided that the Required Credit Cover has been put in place prior to the Effective Date.

- 2.32A Where a Party (or Applicant, as applicable) has not put in place the Required Credit Cover before the Effective Date specified in a Commencement Notice, the Effective Date shall be deferred to commence on the first Trading Period of the first Trading Day after the Required Credit Cover is put in place, provided that such Trading Day is within twelve months of the Effective Date specified in the relevant Commencement Notice, otherwise the Participation Notice shall be deemed to have been withdrawn and the Participation Fee shall not be refunded in whole or in part.
- 2.32B Units shall be deemed registered for the purposes of the Pool from the start of the Effective Date.
- 2.32C A Participant may commence trading in respect of a Unit at the start of the relevant Effective Date or at the start of any Trading Day thereafter. For that purpose, a Party (or Applicant, as applicable) may, following submission of its Participation Notice and prior to the Effective Date, submit data in respect of trading for the Effective Date and any subsequent date in accordance with the Code.
- 2.33 Intentionally blank.
- 2.34 The Market Operator shall publish the fact of the registration of each new Participant and the registration of each new Unit to a Participant. The Market Operator will maintain and publish a current list of Parties, Participants and each of their Units.
- 2.35 Parties or Participants may apply to change registration details of Units by application to the Market Operator pursuant to Agreed Procedure 4 “Data Transaction Submission and Validation”, provided that if a Party applies to reduce the number of Meter Point Registration Numbers registered to any of its Supplier Units, it must comply with the terms of the applicable Metering Code in respect of that Unit.
- 2.36 Intentionally blank.

Registration as Price Maker Generator Unit or Price Taker Generator Unit

- 2.37 Save as provided in paragraphs 2.38 to 2.40 below, a Party (or Applicant, as applicable) registering a Generator Unit shall register such Unit as a Price Maker Generator Unit.
- 2.38 Parties may apply for registration of Generator Units which have Priority Dispatch for their entire capacity and which are Variable or Predictable Generator Units as either:
1. A Price Maker Generator Unit; or
 2. A Price Taker Generator Unit.
- 2.39 A Party or Applicant registering an Autonomous Generator Unit shall register such Unit as a Price Taker Generator Unit.
- 2.40 Parties which have registered Units that have Priority Dispatch as Variable Generator Units or Predictable Generator Units may change the status of such Unit(s) as Price Taker Generator Units or Price Maker Generator Units by application to the Market Operator, giving at least 29 days notice pursuant to Agreed Procedure 4 “Data Transaction Submission and Validation”.

Special Units

- 2.40A A Party (or Applicant, as applicable) shall, on registration of a Generator Unit, specify if the Unit is:
1. a Wind Power Unit;
 2. an Energy Limited Generator Unit;
 3. a Pumped Storage Unit;
 4. a Demand Side Unit;
 5. a Netting Generator Unit; or
 6. an Interconnector Unit.

Transmission Loss Adjustment Factors

- 2.40B On the registration of any new Supplier Unit or Generator Unit, the relevant System Operator shall provide to the Market Operator, subject to prior approval of the Regulatory Authorities, a set of Transmission Loss Adjustment Factors for that Unit for each Trading Period from the start of the Effective Date to the end of the Year.

REGISTRATION OF ERROR SUPPLIER UNIT

- 2.41 One Error Supplier Unit shall be registered in each Jurisdiction.
- 2.42 In each Jurisdiction, the Party that is required pursuant to its Licence to register an Error Supplier Unit shall register the Error Supplier Unit, or procure the registration of the Error Supplier Unit by an Intermediary, in accordance with the Code.
- 2.43 Where the Participant in respect of an Error Supplier Unit is Suspended (and such suspension relates to the Error Supplier Unit) or Terminated in accordance with the Code, or otherwise Deregisters, or ceases to participate in respect of the Error Supplier Unit, then the System Operator for the Jurisdiction for which the Error Supplier Unit concerned is registered shall temporarily assume the responsibilities of the Participant in respect of that Error Supplier Unit for an initial period of 2 months from the date of Suspension, Deregistration, Termination or cessation and the original Participant in respect of the Error Supplier Unit shall cooperate with the System Operator's requirements in this regard.

REGISTRATION OF TRADING SITE

- 2.44 Any Party registering a Generator Unit shall register such Generator Unit as part of a Trading Site except as provided for in Section 2 or Section 5.
- 2.45 Each Trading Site shall include at least one Generator Unit and may include a single Trading Site Supplier Unit which must contain all of the Demand for the Trading Site and only the Demand within the same Trading Site. Except as provided for in paragraphs 2.48 to 2.48C inclusive, each Trading Site shall include all Generator Units on the Generator Site.
- 2.45A On registration of a Trading Site, the Market Operator, on behalf of the Participant that registers the Generator Unit(s) for the Trading Site, shall register a Netting Generator Unit for that Trading Site to the same Participant that registers the Generator Unit(s) for that Trading Site.
- 2.46 Subject to paragraph 2.47, each Unit within a registered Trading Site must be registered to the same Participant.

- 2.47 If a Party registering a Trading Site does not register a Trading Site Supplier Unit to that Trading Site, then on the first registration of a Generator Unit to that Trading Site, the Party registering the Generator Unit shall notify the Market Operator of the identity of the Participant who it is intended shall record an Associated Supplier Unit to the Trading Site. The Participant concerned shall record the association of its Supplier Unit with the relevant Trading Site in accordance with Agreed Procedure 1 “Participant and Unit Registration and Deregistration”. The Associated Supplier Unit may be registered to a different Participant than the other Units in the Trading Site. Subject to paragraph 2.48E, the Associated Supplier Unit may contain Demand outside of the Trading Site. No Unit can be both (i) an Associated Supplier Unit and (ii) either a Trading Site Supplier Unit or an Error Supplier Unit.

Differences between Trading Sites and Connection Agreements

- 2.48 Intentionally blank.
- 2.48A Where there is more than one Meter Point Registration Number or more than one Generator Unit at a Generation Site, such a Generation Site may be registered as more than one Trading Site, each such Trading Site having either one Trading Site Supplier Unit registered by the same Participant as registers the Generator Unit, or one Associated Supplier Unit recorded to the Trading Site.
- 2.48A1 Where there is more than one Meter Point Registration Number at a Generation Site, such a Generation Site may be registered as a single Trading Site which excludes one or more of the Meter Point Registration Numbers from that Trading Site’s Trading Site Supplier Unit or recorded Associated Supplier Unit as appropriate, so long as those excluded Meter Point Registration Numbers do not represent Export Points and the excluded MPRNs are included in another Supplier Unit or Supplier Units.
- 2.48B Where there is one Meter Point Registration Number and more than one Generator Unit at a Generation Site, and the Generation Site is, as permitted under 2.48A, registered as more than one Trading Site, the Meter Point Registration Number will be attributable to only one such Trading Site, by the Trading Site Supplier Unit or the Associated Supplier Unit for that Trading Site including the Demand related to the Generation Site Meter Point Registration Number. Each other Trading Site Supplier Unit and Associated Supplier Unit registered or recorded to a Trading Site within the same Generation Site shall contain no Demand related to that Trading Site.
- 2.48C Where there is more than one Meter Point Registration Number or more than one Generator Unit at a Generation Site, and such Generation Site is registered as more than one Trading Site, each such Trading Site will have a separate registered Netting Generator Unit.

Generator Unit with Non-Firm Access

- 2.48D A Generator Unit has Non-Firm Access where it operates under a Connection Agreement which provides for a Firm Access Quantity which is less than the Maximum Export Capacity of the relevant site. As part of the registration process for such Generator Units, the Firm Access Quantity of Trading Site s (FAQSst) shall be recorded. No Netting Generator Unit shall be deemed to have Non-Firm Access.
- 2.48E Intentionally blank.

- 2.48F Where a Generation Site is, as permitted under paragraph 2.48A, registered as more than one Trading site, and the Generation Site under the Connection Agreement has Non-Firm Access, the Firm Access Quantity of Trading Sites, FASs, will be recorded for each such Trading Site so that together they sum to the Firm Access Quantity set out in the Connection Agreement of the Generation Site.

Registration of an Interconnector

- 2.49 A Party (or an Applicant, as applicable), being the Interconnector Owner, may register an Interconnector in accordance with the procedure for registration of Units (as if references to Units were references to an Interconnector) subject to the additional requirements set out in the following paragraphs. The Party registering the Interconnector shall be treated as the Interconnector Owner for the purposes of the Code.
- 2.50 For each Interconnector, the Interconnector Administrator may be the Interconnector Owner or another Party.
- 2.50A On registration of an Interconnector, the Interconnector Owner shall procure that the person nominated in the Interconnector Registration Data to act as the Interconnector Administrator in respect of the relevant Interconnector, shall register as Interconnector Administrator in accordance with the procedure for the registration of Units (as if references to Units were references to the Interconnector) subject to paragraph 2.52B.
- 2.51 The Interconnector Owner applying to register an Interconnector shall provide the Interconnector Registration Data in its Participation Notice.
- 2.52 Notwithstanding paragraph 2.22, the Interconnector Registration Data for an Interconnector shall comprise:
1. the Aggregate Import Capacity;
 2. the Aggregate Export Capacity;
 3. the Aggregate Interconnector Ramp Rate;
 4. Minimum Interconnector Import Level;
 5. Minimum Interconnector Export Level;
 6. the identity of the person nominated to register as Interconnector Administrator;
 7. the identity of the person nominated to register as Participant in respect of the Interconnector Error Unit;
 8. the name address and contact details (including email and fax) of the Party (or Applicant, as applicable) to which the Interconnector is registered;
 9. the proposed date from which it is intended that the Interconnector be registered, which date shall be no earlier than 20 Working Days from the date the Participation Notice is sent to the Market Operator;
 10. intentionally blank;
 11. evidence of compliance with metering requirements;
 12. evidence that all necessary Connection Agreements are in place, valid and effective;

13. evidence that all necessary Use of System Agreements are in place, valid and effective;
 14. evidence that the Party holds a valid Licence (including an authorisation or exemption) for the activities that it is proposing to undertake in respect of the Interconnector;
 15. the identity of any other Party which is an Affiliate of that Party; and
 16. such other Registration Data as may be required by the Market Operator pursuant to Appendix B and Agreed Procedure 1 “Participant and Unit Registration and Deregistration”).
- 2.52A After initial registration by the Interconnector Owner, the Interconnector Owner shall be responsible for maintaining the Interconnector Registration Data or procuring the Interconnector Administrator to maintain the Interconnector Registration Data.
- 2.52B A Party (or an Applicant, as applicable) who is nominated to register as Interconnector Administrator as part of the Interconnector Registration Data may register as Interconnector Administrator in accordance with the procedure for registration of Units (as if references to Units were references to the Interconnector Administrator), subject to the requirements set out in this paragraph 2.52B Notwithstanding anything in paragraph 2.22, the information to be provided by a Party (or an Applicant, as applicable) applying to register as Interconnector Administrator shall comprise:
1. the Interconnector to which the Participation Notice relates;
 2. the name, address and contact details (including email and fax) of the Party (or Applicant, as applicable);
 3. the proposed date on which the Party (or Applicant, as applicable) intends to commence acting as Interconnector Administrator, which date shall be no earlier than 20 Working Days from the date the Participation Notice is sent to the Market Operator;
 4. the Communications Channels which the Participant designates pursuant to paragraph 3.4 for use in respect of the Interconnector
 5. the identity of any other Party which is an Affiliate of that Party; and
 6. such other Registration Data as may be required by the Market Operator pursuant to Appendix B and Agreed Procedure 1 “Participant and Unit Registration and Deregistration.
- 2.53 Intentionally blank.
- 2.53A No Party shall use an Interconnector to import energy to the Pool or export energy from the Pool unless and until the Market Operator has published notification, in accordance with Appendix K, that:
1. the Interconnector is registered;
 2. an Interconnector Administrator is registered in respect of the relevant Interconnector; and

3. the Participant in respect of the Interconnector Error Unit is registered in respect of the relevant Interconnector.
-
- 2.53B No Party, other than the relevant Interconnector Owner, shall be entitled to voluntarily deregister an Interconnector.
 - 2.53C In relation to any Interconnector, the Interconnector Owner shall provide the Market Operator with notice of its intention to withdraw or terminate the appointment of the Interconnector Administrator and such withdrawal or termination shall not take effect unless and until another Party has been appointed by the Interconnector Owner to register as Interconnector Administrator and has so registered pursuant to paragraph 2.53E, or the Interconnector Owner has Deregistered the Interconnector in accordance with the Code.
 - 2.53D Notwithstanding paragraph 2.77, in relation to any Interconnector, the Interconnector Administrator shall be required to give the Market Operator 60 days notice of its intention to Deregister as Interconnector Administrator and such Deregistration shall not take effect unless and until another Party has been appointed by the Interconnector Owner to register as Interconnector Administrator and has so registered in accordance with paragraph 2.53E, or the Interconnector Owner has Deregistered the Interconnector in accordance with the Code.
 - 2.53E Once the Market Operator has received notice from an Interconnector Owner or an Interconnector Administrator in accordance with paragraph 2.53C or 2.53D, the Market Operator shall accept a Participation Notice from a Party (or Applicant, as applicable) who has been authorised by the Market Operator to act as the new Interconnector Administrator and Deregistration of the existing Interconnector Administrator shall not take effect until registration of the new Interconnector Administrator is complete and effective in accordance with paragraphs 2.20 to 2.36 subject to paragraph 2.52B.
 - 2.54 Where the Interconnector Administrator is, in relation to the Interconnector, suspended or Terminated under the Code or otherwise ceases to participate in respect of the Interconnector and the Interconnector Administrator is not the System Operator for the Jurisdiction in which the Interconnector is connected, then the System Operator for the Jurisdiction in which the relevant Interconnector Units are connected shall temporarily assume the responsibilities of the Interconnector Administrator under the Code for a maximum of 2 months from the date of such suspension, termination or cessation (“the Interconnector Administrator Grace Period”) or such longer period agreed by the System Operator and the previous Interconnector Administrator shall co-operate with the System Operator’s requirements in this regard.
 - 2.55 If the Interconnector Administrator has not resumed participating in accordance with the Code and a new Interconnector Administrator is not registered during the Interconnector Administrator Grace Period (if any), the Market Operator shall suspend the Interconnector as and from the expiry of the Interconnector Administrator Grace Period or if none, from the date of such suspension, Deregistration, Termination or cessation of the Interconnector Administrator and no party shall use the Interconnector to import energy to the Pool, or export energy from the Pool until such time as a new Interconnector Administrator is registered.

Interconnector Residual Capacity Unit

- 2.56 For each Interconnector, there shall be an Interconnector Residual Capacity Unit.
- 2.57 For each Interconnector, the System Operator for the Jurisdiction in which the Interconnector is connected shall register the Interconnector Residual Capacity Unit in accordance with the procedure for registration of Units set out in paragraphs 2.20 to 2.36, subject to paragraph 2.57A and 2.58.
- 2.57A Notwithstanding anything in paragraph 2.22, the information to be provided in a Participation Notice by a Party (or Applicant, as applicable) applying to register the Interconnector Residual Capacity Unit shall comprise:
1. the Interconnector to which the Participation Notice relates;
 2. the Currency Zone of the Unit;
 3. the name address and contact details (including email and fax) of the Participant to which the Unit is to be registered;
 4. the billing address of the Participant;
 5. full details of the bank account to which amounts payable by the Market Operator to that Participant shall be paid;
 6. the proposed date on which the Party (or Applicant, as applicable) intends to commence acting as Participant in respect of the Interconnector Residual Capacity Unit, which date shall be no earlier than 20 Working Days from the date the Participation Notice is sent to the Market Operator;
 7. the Communications Channels which the Participant designates pursuant to paragraph 3.4 for use in respect of that Unit;
 8. VAT details for all relevant Jurisdictions;
 9. the identity of any other Party which is an Affiliate of that Party;
and
 10. such other Registration Data as may be required by the Market Operator pursuant to Appendix B and Agreed Procedure 1 "Participant and Unit Registration and Deregistration".
- 2.58 An Interconnector Residual Capacity Unit may not form part of any Trading Site and shall not be classified either as a Price Maker or as a Price Taker.

Interconnector Error Unit

- 2.59 For each Interconnector, there shall be an Interconnector Error Unit. The Interconnector Owner shall register that Interconnector Error Unit, or, where it has nominated a third party to register the Interconnector Error Unit in the Registration Data, shall procure the registration of the Interconnector Error Unit by that person, in accordance with the procedure for registration of Units set out in paragraphs 2.20 to 2.36, subject to the requirements in paragraphs 2.59A and 2.61.
- 2.59A Notwithstanding anything in paragraph 2.22, the information to be provided in a Participation Notice by a Party (or Applicant, as applicable) applying to register an Interconnector Error Unit shall comprise:
1. the Interconnector to which the Participation Notice relates;

2. the Currency Zone of the Unit;
3. the name address and contact details (including email and fax) of the Participant to which the Unit is to be registered;
4. the billing address of the Participant;
5. full details of the bank account to which amounts payable by the Market Operator to that Participant shall be paid;
6. the proposed date on which the Party (or Applicant, as applicable) intends to commence acting as Participant in respect of the Interconnector Error Unit, which date shall be no earlier than 20 Working Days from the date the Participation Notice is sent to the Market Operator;
7. the Communications Channels which the Participant designates pursuant to paragraph 3.4 for use in respect of that Unit;
8. VAT details for all relevant Jurisdictions;
9. the identity of any other Party which is an Affiliate of that Party; and
10. such other Registration Data as may be required by the Market Operator pursuant to Appendix B and Agreed Procedure 1 "Participant and Unit Registration and Deregistration".

2.59B In relation to any Interconnector, the Interconnector Owner shall provide the Market Operator with notice of its intention to withdraw or terminate the appointment of the Participant in respect of the Interconnector Error Unit and such withdrawal or termination shall not take effect unless and until another Party has been appointed by the Interconnector Owner to register the Interconnector Error Unit and has so registered in accordance with paragraph 2.59D, or the Interconnector Owner has Deregistered the Interconnector in accordance with the Code.

2.59C Notwithstanding paragraph 2.77, in relation to any Interconnector, the Participant in respect of the Interconnector Error Unit shall be required to give the Market Operator 60 days notice of its intention to Deregister the Interconnector Error Unit and such Deregistration shall not take effect unless and until another Party has been appointed by the Interconnector Owner to register the Interconnector Error Unit and has so registered pursuant to paragraph 2.59D, or the Interconnector Owner has Deregistered the Interconnector in accordance with the Code.

2.60 Intentionally blank.

2.61 An Interconnector Error Unit may not form part of any Trading Site.

2.62 Where the Participant in respect of an Interconnector Error Unit is suspended or Deregistered (in relation to the Interconnector Error Unit) or Terminated under the Code or otherwise ceases to participate in respect of the Interconnector Error Unit and the Participant in respect of the Interconnector Error Unit is not the System Operator for the Jurisdiction in which the relevant Interconnector is located, then the System Operator for the Currency Zone in which that Unit is registered shall temporarily assume the responsibilities of the Participant in respect of the Interconnector Error Unit for a maximum of 2 months from the date of such suspension, Deregistration, Termination or cessation (the "Interconnector Error Unit Grace Period") and the previous Participant in respect of the Interconnector

Error Unit shall co-operate with the System Operator's requirements in this regard.

2.63 Intentionally blank.

2.64 If the Participant in respect of the Interconnector Error Unit has not resumed participating in accordance with the Code and a new Participant in respect of the Interconnector Error Unit is not registered during the Interconnector Error Unit Grace Period (if any) and the Interconnector Administrator declines or is unable to be the Participant in respect of the Interconnector Error Unit, the Market Operator shall suspend the Interconnector as and from the expiry of the Interconnector Error Unit Grace Period, or if none, from the date of such suspension, Deregistration, Termination or cessation of the Participant in respect of the Interconnector Error Unit, and no party shall use the Interconnector to import energy to the Pool, or export energy from the Pool until such time as a new Participant is registered in respect of the Interconnector Error Unit.

Interconnector Unit

2.65 A Party (or Applicant, as applicable), being an Interconnector User, may apply for registration of an Interconnector Unit in relation to the relevant Interconnector in accordance with paragraphs 2.20 to 2.36 and subject to paragraphs 2.65A and 2.66. As part of the registration process, pursuant to Appendix B and Agreed Procedure 1 "Participant and Unit Registration and Deregistration", the Interconnector Administrator shall verify to the Market Operator whether or otherwise the Party (or Applicant, as applicable) is an Interconnector User.

2.65A Notwithstanding anything in paragraph 2.22, the information to be provided in a Participation Notice by a Party (or Applicant, as applicable) applying to register an Interconnector Unit shall comprise:

1. the Interconnector to which the Participation Notice relates;
2. the Currency Zone of the Unit;
3. the name address and contact details (including email and fax) of the Participant to which the Unit is to be registered;
4. the billing address of the Participant;
5. full details of the bank account to which amounts payable by the Market Operator to that Participant shall be paid;
6. the proposed date on which the Party intends that trading by that Unit in the Pool is to commence, which date shall be no earlier than 20 Working Days from the date the Participation Notice is sent to the Market Operator in accordance with paragraph 2.23;
7. the Communications Channels which the Participant designates pursuant to paragraph 3.4 for use in respect of that Unit;
8. VAT details for all relevant Jurisdictions;
9. the participation capacities which the Party (or Applicant) has or intends to have and the effective date from which it has or intends to have such capacity;
10. the identity of any other Party which is an Affiliate of that Party; and

11. such other Registration Data as may be required by the Market Operator pursuant to Appendix B and Agreed Procedure 1 “Participant and Unit Registration and Deregistration”..
- 2.65B Intentionally blank.
- 2.66 Interconnector Units may not form part of any Trading Site.
- 2.67 If an Interconnector is suspended under paragraphs 2.55 or 2.64 or otherwise, the Market Operator shall ensure that for each Party’s Interconnector Units registered on that Interconnector the Active Interconnector Unit Import Capacity Holding and Active Interconnector Unit Export Capacity Holding values shall be set to zero until such time as such suspension is lifted.
- 2.67A The Interconnector Administrator shall notify the Market Operator at least 10 days prior to the expiry or termination of an Interconnector User’s authority to act as an Interconnector User. The Market Operator shall Deregister the Interconnector User as and from the date of such expiry or termination and shall set the relevant Active Interconnector Unit Import Capacity Holding and Active Interconnector Unit Export Capacity Holding values for that Participant to zero

Intermediaries

- 2.68 A Party (or an Applicant, as applicable) may, as an Intermediary, register a Generator, other than the Interconnector Residual Capacity Unit, which is owned or controlled by a third party (the Unit Owner), as a Generator Unit under the Code in accordance with paragraphs 2.69 to 2.71. .
- 2.69 The Intermediary must be a Party to the Code provided that an Applicant may submit an application to register Units as an Intermediary prior to becoming a Party provided that registration of Units shall not take effect until the Applicant has become a Party
- 2.70 An Intermediary may register any Units in accordance with the participation procedure in paragraphs 2.20 – 2.36 provided that:
 1. the Regulatory Authorities have consented to the registration of the relevant Units by the Intermediary; and
 2. the Intermediary has submitted a Form of Authority to the Market Operator, executed by the Intermediary and the Unit Owner .
- 2.71 The Intermediary may, for the purposes of the Code, act as the Participant for any Units registered to the Intermediary in accordance with the Code unless and until its authority under the Form of Authority has expired or been revoked.
- 2.72 The Form of Authority shall specify a time period for which the Intermediary may participate in respect of the relevant Units. Such a time period shall not exceed the time period given in the Regulatory Authorities’ consent pursuant to 2.70.1.
- 2.73 Intentionally blank.
- 2.74 The Market Operator shall Deregister any Units registered to an Intermediary automatically on expiry of the Intermediary’s authority under the Form of Authority.

- 2.75 An Intermediary shall, in respect of any Units registered to it as Intermediary, notify the Market Operator immediately on receipt of notice from the Unit Owner of its intention to revoke the Intermediary's authority, that its authority is being revoked and the effective date or proposed effective date of such revocation.
- 2.75A If the Market Operator receives notice from the Intermediary or the Regulatory Authorities that the Intermediary's authority to act in respect of any Unit has been or will be revoked in accordance with applicable Legal Requirements on a particular date, the Market Operator shall deregister the relevant Units on the date of revocation of the Intermediary's authority, or where notice is received following any such revocation, shall immediately on receipt of such notice, deregister the relevant Units.
- 2.76 During the 60 day period immediately prior to expiry of an Intermediary's authority in respect of any Unit under the Form of Authority, or, where the Market Operator has been notified in advance of the proposed revocation of an Intermediary's authority in respect of any Unit in accordance with clause 2.75A, then at any time following such notification, the Market Operator shall accept a Participation Notice registration of the relevant Unit to a new Participant prior to deregistration of the Units from the Intermediary, provided that any new registration shall be subject to the provisions of paragraphs 2.19 to 2.49.

VOLUNTARY DEREGISTRATION OF UNITS

- 2.77 A Party may voluntarily deregister any Units registered in its name pursuant to the following paragraphs and Agreed Procedure 1 "Participant and Unit Registration and Deregistration."
- 2.77A A Party shall notify the Market Operator and the Regulatory Authorities of its intention to deregister any Units at least 60 days in advance of its intended date of Deregistration, using the appropriate form for Deregistration set out in Agreed Procedure 1 "Participant and Unit Registration and Deregistration."
- 2.77B Where the Party applying for Deregistration complies with the procedures set out in Agreed Procedure 1 "Participant and Unit Registration and Deregistration", the Market Operator shall permit the Deregistration of Units subject to the following requirements:
1. all amounts due and payable by the relevant Party pursuant to the Code in respect of the relevant Unit(s) and participation in the Pool up to and including the date of termination shall have been paid in full; and
 2. in the case of Deregistration of Supplier Unit(s), the provisions of the applicable Metering Code have been complied with;
- and
3. in the case of Deregistration of Generator Unit(s), any relevant provisions of the applicable Grid Code have been complied with.
- 2.77C Where the Market Operator has received notice that a Participant wishes to Deregister a Unit in accordance with paragraph 2.77, the Market Operator shall, during the notice period provided for in paragraph 2.77, accept a

Participation Notice from a Party (or Applicant, as applicable) to become the new Participant in respect of that Unit and any such new registration shall be subject to the requirements of paragraphs 2.19 to 2.49, provided that for the purposes of paragraph 2.22.12, it shall suffice that the Party (or Applicant) applying to re-register the Unit complies with paragraph 2.22.12 prior to the Proposed Effective Date.

2.78 Intentionally blank.

MARKET OPERATOR

2.79 The Market Operator shall perform its obligations, functions and powers as provided for in this Code in accordance with all Legal Requirements.

2.80 The Market Operator shall not unduly discriminate between any Parties to the Code in exercising its rights and powers and performing its functions and obligations.

2.81 Save as provided for by law, or under this Code, no undertaking(s) licensed to be the Market Operator, may participate in the Pool as a Participant (including an Intermediary) and the Market Operator shall not be the counterparty or act as principal in any sale and purchase of electricity in the Pool.

2.82 The Market Operator may not assign any of its obligations, functions or powers under this Code to any person. The Market Operator may not, without the prior written consent of the Regulatory Authorities, enter into any agreement to subcontract or delegate any of its obligations, functions or powers under this Code where either:

1. the relevant agreement, if it relates to the supply of goods or services, has a cumulative or aggregate value equal to or exceeding the then current threshold under Article 16 of the Utilities Directive applicable to contracts for supplies and services; or
2. the relevant agreement, if it relates to the performance of works, has a cumulative or aggregate value equal to or exceeding the then current threshold under Article 16 of the Utilities Directive applicable to contracts for works; or
3. where the obligations, functions or powers in question are of material relevance to the role of the Market Operator and/or the proper functioning of the Pool.

2.83 The Regulatory Authorities shall be entitled to direct a Modification to the Code to change the definition of the Market Operator at any time. The definition of the Market Operator under this Code may not be amended save in accordance with this paragraph.

2.84 Save as otherwise provided for in this Code, where any calculation is required to be performed or made under the Code it shall be made or performed or procured by the Market Operator.

2.84A The Market Operator shall be responsible for procuring the performance of all the runs of the MSP Software required under the Code.

- 2.84B If at any time there is more than one person licensed to act as Market Operator, each of the persons licensed to act as Market Operator shall be jointly and severally liable in performing the role of licensed Market Operator under this Code.
- 2.84C Without prejudice to obligations of Parties to comply with the Code, if at any time there is more than one person licensed to act as Market Operator then where any other Party owes an obligation or liability to the Market Operator, if that Party discharges that obligation or liability to either person comprising the Market Operator, then the Party shall be deemed to have discharged the obligation or liability to all persons comprising the Market Operator.
- 2.84D The Market Operator is authorised by all Parties to exercise and perform the rights, obligations and functions granted to it under the Code to the extent required under, and in accordance with, the Code.
- 2.85 Intentionally blank.

OBLIGATIONS ON PARTIES

- 2.86 Each Party shall comply with the Code and the Framework Agreement in exercising its rights and powers and performing its functions and obligations under the Code.
- 2.87 Without prejudice to the generality of paragraph 2.86, no Party shall, either directly or indirectly, on its own or in conjunction with any other Party or person, obstruct the proper and orderly functioning of the Pool.
- 2.87A In acceding to the Code and in consideration of each Party enjoying the benefit of continuing to be a Party to the Code, each Party agrees that the Market Operator shall have the right, as the entity appropriate to enforce the provisions of the Code, to sue any other Party to recover any Shortfall or Unsecured Bad Debt under the Code.
- 2.87B Where the performance of any obligation arising under or in relation to this Code requires the prior approval or action by the Regulatory Authorities, such obligation shall be subject to such prior approval or action by the Regulatory Authorities.
- 2.88 Without prejudice to any other provision of the Code or the Framework Agreement, each Party:
1. shall perform all its rights, functions and obligations under the Code with the degree of care and to the standard expected of a Prudent Industry Operator and in accordance with Prudent Electric Utility Practice;
 2. shall procure at all times, to comply with and maintain all consents, permissions, licences and Licences (and the conditions attaching to any exemptions) required to be obtained to participate in the SEM or to be a Party to the Code; for each capacity in which it acts as a Party or Participant under the Code;
 3. shall pay all fees, levies, charges and other payments arising under the Code as they become due;
 4. shall ensure that save as expressly permitted otherwise, any information or data it is required to submit to the Market Operator, Market Auditor or any other person, or to maintain, as

required by virtue of being a Party or Participant shall be true, valid, correct, complete and accurate at the time it is given and, save as expressly provided otherwise, while it is maintained and, where appropriate, it shall keep the Market Operator informed of any mistakes or omissions in, corrections or updates to any information or data which it has submitted to Market Operator, the Market Auditor or any other person;

5. shall ensure that any information or data it is required to submit to the Market Operator, Market Auditor or any person as required by virtue of being a Party or Participant will be submitted in a timely manner to enable the Market Operator, Market Auditor or such other person to perform their obligations and functions arising pursuant to the Code; and
6. shall co-operate with and provide all reasonable assistance to the Market Operator on request for the purposes of the Market Operator performing its functions and obligations under the Code.

MARKET AUDIT, CONSULTATION AND INFORMATION SHARING

- 2.89 The Regulatory Authorities will appoint a person or firm as Market Auditor every three years for a three year term, such appointment to take effect from the date specified by the Regulatory Authorities.
- 2.90 Where the appointment is terminated or the Market Auditor resigns before the expiry of the three year term, the Regulatory Authorities shall appoint a person or firm to fulfil the role of Market Auditor on a temporary basis pending the appointment by the Regulatory Authorities of a person or firm as Market Auditor for a three year term. The three year term of the person or firm next so appointed as Market Auditor shall commence from their date of appointment.
- 2.91 The Market Auditor shall conduct an audit of the Code, its operation and implementation and the operations, trading arrangements, procedures and processes under the Code at least once a Year.
- 2.92 The annual period covered by the audit shall be 1 January to 31 December annually unless the terms of reference specify a different period.
- 2.93 The Regulatory Authorities shall consult with Parties on the terms of reference for the audit at least 10 weeks in advance of the commencement of the audit.
- 2.94 The Regulatory Authorities shall specify annually the precise terms of reference for the audit 4 weeks in advance of the commencement of each Year of the audit or audit period, if different, and shall publish the terms of reference before the commencement of the audit.
- 2.95 The Market Auditor shall be of good repute with the appropriate experience to enable it to carry out the audit with the appropriate level of expertise, care, skill and diligence.
- 2.96 The Market Auditor, pursuant to these provisions and such terms of reference as the Regulatory Authorities shall specify, shall:
 1. report to the Regulatory Authorities at such reasonable intervals as the Regulatory Authorities shall specify in the terms of

reference during the course of the audit;

2. deliver its Audit Report to the Regulatory Authorities in draft form prior to it being finalised;
 3. deliver its Audit Report in final form to the Regulatory Authorities within 4 weeks of delivering its draft audit;
 4. meet with the Regulatory Authorities at the request of the Regulatory Authorities at any time during the Market Auditor's engagement. The Regulatory Authorities will, in any event, require the Market Auditor to attend a meeting with it within 6 weeks of its delivery of the Audit Report in final form. Nominated representatives of the Market Operator and the Modifications Committee shall be entitled to attend such meeting.
- 2.97 Each Party shall provide without charge to the Market Auditor in a timely manner such information as is reasonably required by the Market Auditor to enable the Market Auditor to comply with its functions and obligations and terms of reference for the purposes of conducting the audit and preparing and finalising the Audit Report. This is subject to any obligations of confidentiality which the relevant Party claims are owed to any third parties which prevent disclosure of the information required. In such circumstances, the relevant Party shall be obliged to explain the nature of the obligations of confidentiality, the information to which they apply and to demonstrate to the satisfaction of the Regulatory Authorities that it has used its best endeavours to obtain a clearance from the third party to whom the obligation of confidentiality is owed to release the information required to the Market Auditor.
- 2.98 The Market Auditor shall be entitled to make recommendations in its Audit Report. The Regulatory Authorities may direct implementation of any recommendation of the Market Auditor and shall consult with the Market Operator and the Modifications Committee before so doing. Any recommendation which the Regulatory Authorities direct to implement by way of an amendment of the Code shall be deemed to be an approved Modifications Proposal and shall be published accordingly by the Market Operator.
- 2.99 The Market Operator shall arrange for the publication of the Audit Report in final form in accordance with the provisions of the Code upon its delivery in accordance with paragraph 2.96.3 subject to any confidentiality obligations under paragraphs 2.312 to 2.318.
- 2.100 Each Party shall keep complete, accurate and up to date records whilst a Party to the Code and, where applicable, of its participation in the Pool for a minimum period of 3 years from the date of creation of such records.
- 2.101 The fees and costs of the Market Auditor shall be paid by the Market Operator.

Information Sharing

- 2.102 The Market Operator shall report to the Regulatory Authorities in writing on a monthly basis or at such other intervals as the Regulatory Authorities may reasonably request and in such manner and to such extent as reasonably

specified by the Regulatory Authorities. The Market Operator shall publish such reports. The reports shall set out in reasonable detail information about:

1. the performance by the Market Operator of its rights, powers, functions and obligations under the Code;
2. factual information relating to the exercise of rights and the carrying out of functions by Parties under the Code.

2.103 Intentionally blank.

2.104 Subject to Applicable Laws, each Party shall allow the Regulatory Authorities on reasonable notice and at reasonable times access to inspect and copy any records relating to the Party's obligations and functions under the Code and, where applicable, its participation in the Single Electricity Market.

2.105 Subject to paragraphs 2.312 to 2.318 concerning Confidential Information, where information is provided by any Party to the Market Auditor or the Market Operator pursuant to the Code, the Market Auditor and the Market Operator shall have the right, without charge, to use, make available, copy, adapt and deal with such data or other information for the purposes of exercising their rights and performing their powers, functions and obligations under the Code (and, in the case of the Market Auditor, its terms of reference) but for no other reason.

2.106 Intentionally blank.

2.107 Intentionally blank.

MODIFICATIONS

2.108 Modifications shall be processed in accordance with paragraphs 2.109 to 2.206 and Agreed Procedure 12 "Modifications Committee Operation".

2.109 The objective of the Modifications Committee is to progress Modification Proposals with a view to better facilitating the achievement by the Code of the Code Objectives.

Functions of the Modifications Committee

2.110 The functions of the Modifications Committee are to facilitate the Modifications Process by:

3. co-ordinating the resources of Parties to facilitate the development and processing of a Modification Proposal;
4. assessing Modification Proposals and the impact of any Modification Proposals for the Pool having regard to the Code Objectives;
5. further developing Modification Proposals which are not rejected as being spurious;
6. working up the detail of Modification Proposals;
7. consulting on Modification Proposals as required;
8. compiling reports and making recommendations on Modification Proposals to the Regulatory Authorities; and

9. making any appropriate changes to Agreed Procedures.

2.111 Intentionally blank.

2.112 Intentionally blank.

2.113 A Member elected or appointed to represent a particular type of Participant shall represent the interests of the type of Participant it is elected or appointed to represent.

Constitution of the Modifications Committee and Voting Rules

2.114 The Modifications Committee shall consist of:

1. one member appointed by the Commission and one member appointed by NIAER;
2. at least nine and no more than fifteen further members appointed as follows, such persons to include at all times:
 - a. at least three (3) Members nominated by or elected in respect of Generation Participants;
 - b. at least three (3) Members nominated by or elected in respect of Supply Participants;
 - c. one Member appointed by the Market Operator;
 - d. one Member appointed by each of the System Operators; and
 - e. one Member appointed by each of the Meter Data Providers (to the extent not already represented).

2.114A Unless directed otherwise by the Regulatory Authorities and subject to paragraphs 2.114B and C, there shall at all times be an equal number of persons nominated by or elected in respect of Generation Participants and persons nominated by or elected in respect of Supply Participants on the Modifications Committee.

2.114 B If the Regulatory Authorities determine at any time that any particular type of Participant is not adequately represented on the Modifications Committee, the Regulatory Authorities may seek nominations from relevant Participants and then appoint a person from such nominations to represent that type of Participant. Such a person shall be a voting member of the Modifications Committee and shall be appointed for an initial term of two years. A member appointed in accordance with this paragraph 2.114B shall not be deemed to be a representative of Generation Participants or Supply Participants for the purposes of paragraph 2.114 or 2.114C.

2.114C The Regulatory Authorities may from time to time stipulate the minimum or maximum representation for Supply Participants and Generation Participants.

2.115 The total number of members of the Modifications Committee shall be not less than eleven (11) persons and not more than seventeen (17) persons.

2.116 Save as expressly provided otherwise, only members appointed or elected to represent Nominating Participants shall be entitled to vote at any Meeting and those members shall have one vote each. Those members who are appointed by, and to represent, the Commission, NIAER, System Operators, Meter Data Providers and the Market Operator shall not have any vote.

- 2.117 The Market Operator shall make available to the Modifications Committee a fulltime Secretariat. None of the Secretariat's personnel shall be a member of the Modifications Committee.
- 2.118 The Market Operator shall be responsible for performance by the Secretariat of its functions necessary for the proper functioning of the Modifications Process under the Code.
- 2.118A Agreed Procedure 12 "Modifications Committee Operation" sets out the rules for the Quorum of the Modifications Committee and the voting rules. No decision or recommendation of the Modifications Committee can be reached without a Quorum. Voting will be by simple majority, with the chairperson casting the deciding vote in the event of a tied vote.

Chairperson

- 2.119 The Modifications Committee shall have a chairperson and vice-chairperson who shall be elected from the voting members of the Modifications Committee by the voting members of the Modifications Committee. Such election shall take place as the first item of business at the first Meeting of the Modifications Committee and thereafter whenever a vacancy arises. On election at that first meeting, the chairperson shall then take the chair of the Meeting. In the event of a tie for the election of the chairperson or vice-chairperson at the first Meeting, a subsequent ballot or ballots shall take place until a chairperson and vice-chairperson are elected.
- 2.120 The term of appointment for the chairperson and the vice-chairperson shall be one year.
- 2.121 In the event that the chairperson cannot attend a meeting or chair a meeting for its entirety for any reason, the vice-chairperson shall take his or her place as the chairperson of the meeting.
- 2.122 In the event that the chairperson retires, resigns or is removed from the Modifications Committee, or otherwise becomes unavailable to act as chairperson of the Modifications Committee, the vice-chairperson shall take his or her place for the remainder of the term for which that person was appointed chairperson and a new vice-chairperson shall be elected from the voting members of the Modifications Committee by the voting members of the Modifications Committee.
- 2.123 The chairperson will chair meetings of the Modifications Committee and seek to ensure the efficient organisation and conduct of the functions of the Modifications Committee pursuant to the Code.

Nomination of Participant Members

- 2.124 Each Nominating Participant may put forward one nominee and an alternate for that nominee for appointment to the Modifications Committee at such times as may be notified by the Regulatory Authorities in the case of the initial Modifications Committee and thereafter at such times as may be notified by the then existing Modifications Committee.

Nominations of Other Members

- 2.125 The Commission, NIAER, the Market Operator, each of the System Operators and each of the Meter Data Providers shall each nominate one member and an alternate member for appointment to the initial Modifications Committee at such time as the Regulatory Authorities may specify for the purposes of the establishment of the initial Modifications Committee.

Thereafter, the Commission, NIAER, the Market Operator, each of the System Operators and each of the Meter Data Providers shall each nominate one member and alternate member for appointment to the Modifications Committee at such times as the then existing Modifications Committee may notify.

Appointment of Initial Modifications Committee

- 2.126 The initial Modifications Committee shall be established at a time specified by the Regulatory Authorities. The Regulatory Authorities shall publish the names of the members of the Modifications Committee at least 8 weeks before the establishment date it proposes for the initial Modifications Committee.
- 2.127 The nominees of the Commission, NIAER, the Market Operator, System Operators and Meter Data Providers shall be automatically appointed to the initial Modifications Committee.
- 2.128 The Regulatory Authorities shall appoint members and alternate members to the initial Modifications Committee from nominees put forward by the Nominating Participants.

Duration of Appointment

- 2.128A The members of the Modifications Committee and their alternate members shall each serve for the respective terms as follows:
1. Each of the initial members appointed by, and to represent, the Commission, the Market Operator, the Northern Ireland System Operator and one Meter Data Provider shall each have an initial term of one year. Thereafter, each member appointed by the foregoing shall be appointed for a term of two years.
 2. Each of the initial members appointed by, and to represent, the NIAER, the System Operator for Ireland and the remaining Meter Data Providers shall each have an initial term of two years. Thereafter each member appointed by the foregoing shall be appointed for a term of two years.
 3. Every second initial member appointed following nomination by the Nominating Participants shall have an initial term of one year. All other remaining initial members appointed following nomination by the Nominating Participants shall have an initial term of two years.
 4. New members elected by Nominating Participants or appointed by the Regulatory Authorities pursuant to paragraph 2.114B shall each serve for a term of two years.

Appointment of Subsequent Members

- 2.129 On the termination of the appointment or the removal of any member of the Modifications Committee who is a nominee of any of the Market Operator, the System Operators or the Meter Data Providers, that person shall be replaced in the same manner as the appointment of the initial nominee under paragraphs 2.126 to 2.127.
- 2.130 The Commission and the NIAER shall be entitled to replace any member nominated by the Commission or the NIAER (as representatives of the

Commission and the NIAER) at any time by giving notice to the Secretariat and with effect from the date specified in such notice.

2.130A At least 8 weeks prior to the expiry of any person's membership of the Modifications Committee, the existing Modifications Committee shall:

1. where that person is a member appointed by the Commission, NIAER, Market Operator, the System Operators or the Meter Data Providers, notify the relevant party that is required to appoint a new member and new alternate member;
2. where that person is a member appointed in respect of Generation Participants or Supply Participants, request the Secretariat to arrange an election in accordance with paragraph 2.131.

2.131 Prior to the expiry of membership of any initial or subsequent Nominating Participant member, the Secretariat shall arrange a Nominating Participant Election to fill that vacancy in accordance with such of the following steps as are necessary:

1. relevant Nominating Participants shall be requested to propose new nominees and alternates for election;
2. each Nominating Participant shall be entitled to vote to elect members from the Participant nominees in accordance with paragraphs 2.131 to 2.137.
3. nominating Supply Participants shall be entitled to vote to elect a member from the persons nominated by them;
4. nominating Generation Participants shall be entitled to vote to elect a member from the persons nominated by them;
5. the number of nominees with the most votes from Supply Participants but not exceeding three in number, shall be appointed to the Modifications Committee to replace any retiring, terminated or removed Supply Participant member;
6. the number of nominees with the most votes from Generation Participants but not exceeding three in number, shall be appointed to replace any retiring, terminated or removed Generation Participant;
7. the constitution of the Modifications Committee shall, unless agreed otherwise by the Regulatory Authorities, continue to comply with paragraphs 2.114 to 2.114C; and
8. the detailed form of the election shall be determined by the initial Modifications Committee subject to approval by the Regulatory Authorities.

2.132 Intentionally blank.

2.133 Elections shall take place, where practicable, not later than 4 weeks prior to the date of expiry of the membership of any one or more of the elected nominee(s) to replace such persons on the Modifications Committee.

2.134 In the event that a nominee of any Nominating Participant is elected, the person put forward as an alternate to that nominee shall automatically be deemed to be that person's alternate member.

- 2.135 The Modifications Committee may at any time stipulate that an outgoing member who is a nominee of Generation Participants or Supply Participants must be replaced in any election with a nominee of Generation Participants or Supply Participants respectively in order to preserve the requisite constitution of the Modifications Committee in accordance with paragraph 2.114 or as may be stipulated from time to time by the Regulatory Authorities pursuant to paragraph 2.114B or 2.114C.
- 2.136 Members who have previously served on the Modifications Committee may be re-appointed or re-elected to the Modifications Committee provided that they have not at any time been removed from the Modifications Committee or otherwise ceased to be eligible in accordance with paragraph 2.142.
- 2.137 If for any reason the procedures set out in paragraphs 2.13 to 2.133 do not result in a sufficient number of Nominating Participant members, the Regulatory Authorities shall appoint members in accordance with paragraph 2.128.
- 2.138 Intentionally blank.
- 2.139 Intentionally blank.
- 2.140 Membership of the Modifications Committee shall automatically terminate at the end of a member's term unless such termination would leave the Modifications Committee with less than 11 members, in which case the term of membership may be extended until a replacement member is appointed or elected to the Modifications Committee.
- 2.141 Intentionally blank.

Resignation and Removal of Members of the Modifications Committee

- 2.142 Any member may be removed during his or her term by the majority decision of the Modifications Committee (subject to veto by the Regulatory Authorities) if that person:
1. ceases to be in a position to represent those Supply Participants or Generation Participants from which the member was nominated;
 2. is or becomes of unsound mind or is, or otherwise becomes incapable of performing the functions of a member of the Modifications Committee;
 3. has been, or is, in the reasonable opinion of the majority of the other members of the Modifications Committee, engaged in conduct which is inconsistent with or detrimental to being a member of the Modifications Committee; or
 4. fails to discharge the obligations of a member of the Modifications Committee.
- 2.143 A member may resign on giving at least 5 weeks' notice in writing to the Secretariat which shall convey the notice to the Market Operator.
- 2.144 A member nominated by the Commission or the NIAER may be removed at any time by the Commission or the NIAER respectively and replaced in accordance with paragraph 2.130.

Alternate Members of the Modifications Committee

- 2.145 An alternate member shall be appointed to the Modifications Committee only as provided for in the Code.
- 2.146 Should a member be removed, resign or retire from the Modifications Committee, the alternate member shall take the place of that member on the Modifications Committee for the remainder of that member's term.
- 2.147 In the circumstances set out in paragraph 2.146, a new alternate member shall be appointed by the person who nominated the original member.
- 2.148 If any member is unable to attend a meeting of the Modifications Committee, the alternate member shall be entitled to take the place of the member in that meeting.

Meetings of the Modifications Committee

- 2.149 The Modifications Committee shall have a Meeting at least once every 2 months.
- 2.150 Intentionally blank.
- 2.151 The Modifications Committee acting through the Secretariat, shall set the date of each Meeting and, where possible, shall publish such date at least two weeks in advance.
- 2.152 Any person may attend Meetings of the Modifications Committee in an observatory capacity where that person has informed the Secretariat to the Modifications Committee in advance and the Secretariat has confirmed that person's attendance in accordance with Agreed Procedure 12 "Modifications Committee Operation". Where space is limited, attendance of non-members may be limited on a first come first served basis.

Costs of the Modifications Committee

- 2.153 The costs of the Secretariat, Meetings and all other costs of the Modifications Committee shall be included as costs and expenses of the Market Operator for the purposes of the Code.
- 2.154 Members of the Modifications Committee shall not be entitled to remuneration or expenses.

Who Can Propose Modifications to the Code and Requirement for Draft Text

- 2.155 Modification Proposals to the Code can be proposed by any person including the Market Operator and the Regulatory Authorities. Any Modification Proposal shall be submitted to the Secretariat.
- 2.156 Intentionally blank.
- 2.157 Any person raising a Modification Proposal shall ensure that their proposal is clear and substantiated with appropriate detail, including how it furthers the Code Objectives, to enable it to be considered by the Modifications Committee.
- 2.158 Each Modification Proposal shall include draft text of the relevant provision of the Code as amended by the Modifications Proposal.

Overall Timeline for the Development of the Modification Recommendation Report

- 2.159 Save as expressly provided otherwise, the Modifications Committee shall produce a Modification Recommendation Report in respect of each Modification Proposal.
- 2.159A The Modification Recommendation Report shall be submitted to the Regulatory Authorities within eight months of receipt of a Modification Proposal unless such period is extended with the consent of the Regulatory Authorities.

Procedure for Developing Proposals

- 2.160 The Secretariat shall, as soon as practicable after receipt of a Modification Proposal, publish a notice containing the relevant Modification Proposal (“Proposal Notice”).
- 2.161 A Modification Proposal shall be considered by the Modifications Committee at the next appropriate Meeting in accordance with Agreed Procedure 12 “Modifications Committee Operation”.
- 2.162 The person making a Modification Proposal or its representative shall be entitled to present the Modification Proposal at the Meeting at which it is to be initially considered.
- 2.163 At the Meeting where it first considers a Modification Proposal, the Modifications Committee shall first determine whether the Modification Proposal is spurious in accordance with paragraphs 2.168 to 2.169.
- 2.164 The Modifications Committee may decide to modify or combine Modification Proposals. Modified or combined Modification Proposals shall reference the original Modification Proposals.
- 2.165 The Modifications Committee may specifically invite appropriate persons, such as Participants, the Market Operator, the System Operators, industry groups, customer representatives or other persons to express their opinions on any Modification Proposal, including providing an impact analysis, in the manner provided for in Agreed Procedure 12 “Modifications Committee Operation”.
- 2.165A Parties invited to assist the Modifications Committee under paragraph 2.165 will make available reasonable resources to respond to such request by the Modifications Committee.
- 2.165B The Modifications Committee may hold a public consultation in relation to a Modification Proposal. Where there is a public consultation, a minimum consultation period of 10 Working Days from the date of publication of the relevant consultation paper shall be provided.
- 2.166 In working up detail of a Modification Proposal, the Modifications Committee shall have due regard to comments and submissions received during the consultation process.
- 2.167 The Modifications Committee may contract consultants, experts or advisers at reasonable cost to advise the Modifications Committee regarding any Modification Proposal, including the preparation of an impact analysis report. Any reasonable costs incurred by the Modifications Committee in connection with this shall form part of the costs of the Secretariat.

Spurious Proposals

- 2.168 A Modification Proposal shall be deemed to be spurious if, inter alia, it is clearly contrary to the Code Objectives or does not further the Code Objectives. If the Modifications Committee reasonably considers a Modification Proposal to be spurious, it shall reject such Modification Proposal.
- 2.169 Any decision of the Modifications Committee under paragraph 2.168 to reject a Modification Proposal must set out the reasons for the decision in writing and provide them to the person making the Modification Proposal and the Regulatory Authorities.
- 2.169A The Regulatory Authorities reserve the right to veto any decision of the Modifications Committee that a proposal is spurious and in such event, the relevant Modification Proposal must be processed by the Modifications Committee in accordance with the Code.

Urgent Modifications

- 2.170 Any person submitting a Modification Proposal may mark it as "Urgent". A person submitting a Modification Proposal marked "Urgent" shall submit the Modification Proposal to the Secretariat and the Regulatory Authorities.
- 2.171 The Secretariat shall, as soon as possible on receipt of a Modification Proposal which is marked "Urgent" forward it to the Regulatory Authorities who shall determine whether or not it shall be treated as an Urgent.
- 2.172 A Modification Proposal shall be determined to be Urgent by the Regulatory Authorities where, if not made, it can reasonably be anticipated that the event or circumstance with which the Modification Proposal is concerned would imminently:
1. threaten or prejudice safety, security or reliability of supply of electricity; or
 2. unduly interfere with, disrupt or threaten the operation of the Single Electricity Market;
 3. or if a Modification is required to correct an obviously material error or inconsistency in the Code.
- 2.172A If the Regulatory Authorities determine that a Modification Proposal is Urgent under paragraph 2.172, the Modifications Committee shall convene an Emergency Meeting.
- 2.173 Intentionally blank.
- 2.174 If the Secretariat or the Modifications Committee considers that any of the criteria in paragraph 2.172 apply in respect of any Modification Proposal that has not been marked "Urgent" by the person submitting the Modification Proposal, the Secretariat shall promptly submit the Modification Proposal to the Regulatory Authorities for consideration in accordance with paragraph 2.171.
- 2.175 In the event that a Modification Proposal is deemed to be Urgent, the Modifications Committee shall propose the procedure and timetable to be followed in making a recommendation in respect of the Urgent Modification which may fast-track the normal processes provided for in this Code. The Regulatory Authorities shall have the right to veto or direct amendments to the procedure and timetable proposed by the Modifications Committee

within 2 Working Days of any such proposal by the Modifications Committee.

- 2.176 Intentionally blank.
- 2.177 Intentionally blank.
- 2.178 Intentionally blank.
- 2.179 Intentionally blank.
- 2.180 Intentionally blank.
- 2.181 Intentionally blank.

Alternative Proposals

- 2.182 If any person does not agree with a Modification Proposal to the Code, it may propose an alternative Modification Proposal, which if received in sufficient time to be considered within the Modifications Committee's plans for progressing the initial original modification proposal may be considered in conjunction with, or in substitution for, the initial Modification Proposal.
- 2.183 Intentionally blank.

Contents and Form of the Final Modification Recommendation Report

- 2.184 The Modifications Committee shall make the determination for the Final Modification Recommendation by majority vote of voting members of the Modifications Committee. The Modifications Committee shall send the Final Modification Recommendation as part of the Final Recommendation Report in relation to the Modifications Proposal to the Regulatory Authorities as soon as practicable after the determination.
- 2.184A The Modifications Committee shall recommend to the Regulatory Authorities the adoption of such Modifications Proposals as it concludes will better facilitate achievement of the Code Objectives.
- 2.185 Intentionally blank.
- 2.186 The Final Modification Recommendation of the Modifications Committee shall be part of the Final Recommendation Report which shall include:
 - 1. the determination of the Modifications Committee on whether or not the Modification Proposal should be adopted;
 - 2. the reasons for such determination;
 - 3. where the Modifications Committee is in favour of the proposal, a draft of the text of the proposed Modification;
 - 4. the original draft of the Modification Proposal;
 - 5. any dissenting opinions of members of the Modifications Committee;
 - 6. a copy the Market Operator's opinion on the Modification;
 - 7. the views of any respondents submitted during the consultation process (including any views of persons invited to give opinions or experienced consultants contracted to provide advice pursuant to paragraph 2.178;
 - 8. an assessment of the impact of the Modification Proposal including in relation to the Code, any Ancillary Code Documents,

- any Legal Requirements, any other codes relating to the operation of the SEM (including the Grid Codes and the Metering Codes) or any other relevant matter;
9. an assessment, where the Modifications Committee deems appropriate, of any alternative Modification Proposal proposed by any person;
 10. a draft of the specific changes that it is proposed would be necessary to make to the Code if the Modification Proposal would be accepted;
 11. proposed timescales for implementation; and
 12. a cost/resource requirements assessment.

No Recommendation or Decision by Modifications Committee

- 2.187 In the event that the Modifications Committee is unable make a determination in respect of a Modification Proposal within the timeframes set out in paragraph 2.159 the matter shall be referred to the Regulatory Authorities. This referral shall detail the proposal and the information referred to in paragraphs 2.186 (with the exception of sub-paragraph 2.186.1 to 2.186.3 and 2.186.11 to 2.186.12). In such event, the Regulatory Authorities shall either make a binding decision in accordance with paragraph 2.189, or shall extend the applicable time-limit for the Modifications Committee under paragraph 2.159.
- 2.187A In the event that the Modifications Committee does not issue a determination in respect of a Modification Proposal within the timeframes set out in paragraph 2.159 and does not refer the matter to the Regulatory Authorities under paragraph 2.188, the Regulatory Authorities shall either make a binding decision in accordance with paragraph 2.189, or shall extend the applicable time-limit for the Modifications Committee under paragraph 2.159.

Decision of Regulatory Authorities

- 2.188 Following receipt of a the Final Recommendation Report created by the Modifications Committee, the Regulatory Authorities shall decide whether to:
1. direct a Modification in accordance or otherwise with the Final Modification Recommendation of the Modifications Committee;
 2. reject the Final Modification Recommendation of the Modifications Committee; or
 3. direct the Modifications Committee that further work is required in respect of the Modification Proposal concerned in the Final Modification Recommendation, extending the 8 month timeline if necessary.
- 2.189 The Regulatory Authorities shall make their decision under paragraph 2.188 in relation to a Modification Proposal as soon as reasonably practicable following receipt of the Final Modification Report or for the purposes of paragraphs 2.187 and 2.187A.
- 2.190 If approved by the Regulatory Authorities, the Modification shall become effective 2 Working Days after the date of the decision of the Regulatory

Authorities or such other date as may be specified by the Regulatory Authorities in its decision.

- 2.191 Once any Modification has been made, the Market Operator will be required to implement the change, including making the necessary changes to systems and processes with effect from the date provided for pursuant to paragraph 2.190. The Market Operator shall publish the decision of the Regulatory Authorities promptly on its receipt.

Modifications of Agreed Procedures

- 2.192 If at a Meeting at which any Agreed Procedure Modification Proposal is considered, a unanimous determination is made by the Modifications Committee, which, for the purposes of this paragraph, shall be required to be by the vote of all members except the Regulatory Authorities' representatives, in respect of the Agreed Procedure Modification Proposal including, where the decision is to adopt the Agreed Procedure Modification Proposal, the text of the relevant Agreed Procedure Modification, the decision of the Modifications Committee shall be final and binding, provided that the Regulatory Authorities shall have a right to veto any such decision within 2 days of the decision being made.
- 2.193 In the event that the Modifications Committee makes a determination to modify an Agreed Procedure in accordance with paragraph 2.192, the Modification shall be made to the relevant Agreed Procedure in the form determined by the Modifications Committee. The Modifications Committee shall notify the Regulatory Authorities of this and the Agreed Procedure Modification shall become effective on a date specified by the Modifications Committee.
- 2.194 If the Modifications Committee does make a determination in relation to a an Agreed Procedure Modification Proposal in accordance with paragraph 2.192 at the relevant Meeting, the Secretariat shall send the Agreed Procedure Modification Proposal to the Regulatory Authorities for determination and the Regulatory Authorities shall:
1. direct a Modification in accordance or otherwise with the Agreed Procedure Modification Proposal; or
 2. reject the Agreed Procedure Modification Proposal; or
 3. direct the Modifications Committee that further work is required in respect of the Agreed Procedure Modification Proposal.
- 2.194A The Regulatory Authorities shall make a decision in relation to an Agreed Procedure Modification Proposal as soon as reasonably practicable on receipt.
- 2.195 Any Modification of Agreed Procedures shall be published by the Market Operator within 2 Working Days after approval by the Modifications Committee or the Regulatory Authorities as the case may be.
- 2.196 Any proposal to introduce a new Agreed Procedure shall not be an Agreed Procedure Modification Proposal but shall constitute a Modification Proposal and be dealt with accordingly pursuant to paragraphs 2.160 to 2.169 and 2.176 to 2.191.

Information about the Modifications Process

- 2.197 The Market Operator shall publish information relating to the Modifications Process and the status of each Modification Proposal and Agreed Procedure Modification Proposal subject to the confidentiality provisions set out in paragraphs 2.312 to 2.318.
- 2.198 The Market Operator shall provide for a website location or other similar means of publication to be available to the Secretariat and the Modifications Committee for the Modifications Process.
- 2.199 The Market Operator shall publish notices submitted to it by the Modifications Committee as soon as practicable after receipt of such notices and in any event within 2 Working Days after receipt of such notices.
- 2.200 The Modifications Committee shall submit a quarterly report to the Regulatory Authorities including the progress and status of Modification Proposals. These reports shall be published by the Market Operator as soon as practicable on receipt.
- 2.201 The Market Operator shall publish the determination of the Regulatory Authorities in relation to a Modification Proposal within 2 Working Days after such decision has been made and submitted to the Market Operator and, where a Modification Proposal has been accepted, such publication shall include the text of the Modification.

Intellectual Property Issues Associated With Modification Proposals

- 2.202 Each Party submitting a Modification Proposal shall be deemed to have irrevocably licensed any Intellectual Property Rights or other rights to, and to have waived any moral rights in, the content, form or other aspect of the Modification Proposal and such licence and waiver shall be a precondition to the valid submission of a Modification Proposal.
- 2.203 Each person who is not a Party and submits a Modification Proposal shall be required to irrevocably licence any Intellectual Property Rights or other rights to and waive any moral rights in the content, form or other aspect of the Modification Proposal and such licence and waiver shall be a precondition to the acceptance of a Modification Proposal.
- 2.204 A form for Modification Proposals shall be made available on the website provided for the Modifications Committee and such form shall include a licence of Intellectual Property Rights, and waiver of moral rights in respect of the content, format or other aspects of the proposal.
- 2.205 Intentionally blank.

No Retrospective Effect

- 2.206 For the avoidance of doubt, a Modification shall have effect as and from the date specified by the Regulatory Authorities or, where applicable, the Modifications Committee and in no event shall that date be earlier than the date on which the Modification is approved by the Regulatory Authorities, or, where applicable, the Modifications Committee. Under no circumstances shall Modifications have retrospective effect.

DEFAULT, SUSPENSION AND TERMINATION

Default

- 2.207 The following sections on default, suspension and termination shall apply in respect of Default by any Party other than the Market Operator.
- 2.208 A Party shall be in Default where it is in breach of any provision of the Code or the Framework Agreement.
- 2.209 A Party shall notify the Market Operator immediately upon becoming aware of any circumstance that will give rise to a Default and upon the occurrence of a Default.

Default Notice

- 2.210 On becoming aware of a Default in relation to a Party, the Market Operator shall issue to the Defaulting Party a Default Notice specifying the Default.
- 2.211 Intentionally blank.
- 2.212 The Market Operator shall specify in a Default Notice:
1. the nature of the Default;
 2. if the Default is capable of remedy, the time from the date of the Default Notice within which the Defaulting Party is required to remedy the Default;
 3. any other action which the Market Operator may require the Defaulting Party to take in respect of the Default.
- 2.212A The Defaulting Party must comply with the Default Notice.
- 2.213 Intentionally blank.
- 2.214 Intentionally blank.

Suspension

- 2.215 In the event that:
1. a Credit Call is made and a Participant's Credit Cover Provider fails to meet such demand within the timeframe as provided for in paragraph 6.33D; or
 2. a Participant fails at any time to provide the Required Credit Cover as specified under this Code and in accordance with the timeframe as provided for in Section 6 and Agreed Procedure 9 "Management of Credit Cover and Credit Default";
- then, notwithstanding paragraph 2.217 and subject to paragraph 2.216, the Market Operator shall at the same time as or following the issue of the Default Notice to the Defaulting Party in respect of such Default, issue a Suspension Order in respect of all of the relevant Participant's Units. A Suspension Order issued under this paragraph 2.215 shall have immediate effect, save as expressly provided under paragraph 2.220A.
- 2.216 A Suspension Order shall not be issued under paragraph 2.215 solely by reason of the failure of the Participant to have its Credit Cover in place under paragraph 2.215.2 during the two days permitted for replenishment of Credit Cover under paragraph 6.140 or during the 10 days permitted to acquire a new Credit Cover Provider under paragraph 6.136E.

2.217 The Market Operator may, with the prior written approval of the Regulatory Authorities, issue a Suspension Order in respect of all or any of a Party's Units where:

1. it becomes unlawful for a Party to comply with any of its obligations under the Code;
2. it becomes unlawful for a Party's Credit Cover Provider to comply with any of its Credit Cover obligations;
3. a Legal Requirement necessary to enable a Party or its Credit Cover Provider to fulfil its obligations and functions under the Code is amended or revoked in whole or in part so as to prevent a Party or its Credit Cover Provider from fulfilling its obligations and functions under the Code;
4. a Party or its Credit Cover Provider suspends or ceases to carry on its business, or any part of its business which is relevant to its activities under the Code;
5. a Party's Credit Cover Provider ceases to be eligible for the purposes of the Code to be able to provide the Credit Cover and the Party has not acquired a new Credit Cover Provider within 10 Working Days as required under paragraph 6.136E;
6. a Party enters into or takes any action to enter into an arrangement or composition with its creditors (except in the case of a solvent and bona fide reconstruction or amalgamation);
7. a Party's Credit Cover Provider enters into or takes any action to enter into an arrangement or composition with its creditors (except in the case of a solvent and bona fide reconstruction or amalgamation);
8. a receiver, manager, receiver and manager, administrative receiver, examiner or administrator is appointed in respect of a Party or its Credit Cover Provider or any of their respective assets, or a petition is presented for the appointment of an examiner or administrator, or a petition is presented or an order is made or a resolution is passed for the dissolution of, winding up of or appointment of a liquidator to a Party or its Credit Cover Provider, or a liquidator, trustee in bankruptcy or other similar person is appointed in respect of a Party or its Credit Cover Provider, or any steps are taken to do any of the foregoing or any event analogous to any of the foregoing happens in any jurisdiction;
9. a Party or its Credit Cover Provider is dissolved or struck off;
10. a Party or its Credit Cover Provider is unable to pay its debts for the purposes of section 214 of the Companies Act, 1963 (Ireland), Article 103 (1) or (2) of the Insolvency Order (Northern Ireland) 1989, or Section 123 (1) or (2) of the Insolvency Act 1986 (England and Wales) (as applicable) or if any voluntary arrangement is proposed in relation under Article 14 of the Insolvency Order (Northern Ireland) 1989, or section 1 of the Insolvency Act 1986 (England and Wales), or for the purpose of any similar or analogous legislation under the laws of any jurisdiction. For the purposes of this paragraph 2.217.10, Section 213 of the Companies Act, 1963 shall have effect as if for

“£60,000” there was substituted “€100,000” and Article 103 of the Insolvency Order (Northern Ireland) and section 123 of the Insolvency Act, 1986 (England and Wales) shall have effect as if for “£750” there was substituted “£60,000” or such higher figure as the Market Operator may specify from time to time;

11. a Party which is required to be licensed in respect of any or all of its roles under the Code has its Licence revoked in whole or in part or amended, so as to prevent the Party from fulfilling its obligations and functions under the Code;
12. a Party has committed 3 Defaults within a period of 20 Working Days;
13. a Party has committed a Default and has failed for a period of 20 consecutive days, or such longer period as may be set out in the relevant Default Notice, to comply with the terms of such Default Notice.

2.218 Intentionally blank.

2.219 Where the Market Operator issues a Suspension Order, the Market Operator shall at the same time send a copy of the Suspension Order to the Regulatory Authorities, the System Operators and the relevant Distribution System Operators and publish the Suspension Order.

Effect of Suspension Order

2.220 Where the Market Operator issues a Suspension Order, the Suspension Order shall, subject to paragraph 2.220A, specify the Units to which the Suspension Order shall apply, the date and time from which the suspension will take effect and the terms of the suspension.

2.220A A Suspension Order in respect of a Supplier Unit shall be expressed to take effect no earlier than the date of expiry of the Supplier Suspension Delay Period, to allow for the transfer of the relevant Units to the Supplier of Last Resort.

2.220B The Supplier Suspension Delay Period shall be determined from time to time by the Regulatory Authorities.

2.220C On receipt of the Regulatory Authorities' determination, the Market Operator shall publish the approved value of the Supplier Suspension Delay Period.

2.221 When a Suspension Order takes effect, the Units to which the Suspension Order applies shall be suspended from participation in the Pool until such time as the Market Operator publishes a notice stating that:

1. the Suspension Order has either been lifted or will be lifted (specifying date and time); or
2. the participation of the relevant Party in the Pool has been Terminated, or the relevant Units have been Deregistered, in each case in accordance with the Code;

2.221A The Participation of Suspended Units in the Pool may resume but only in accordance with such restrictions as specified in the Suspension Order.

2.221B A Suspension Order shall not affect the continuing obligation of any Party whose Units have been suspended to maintain the Required Credit Cover in respect of all of its Units.

- 2.222 Without prejudice to the generality of paragraphs 2.220 to 2.221, a Suspension Order may suspend or restrict any or all of a Party's Units. The Market Operator shall, while a Suspension Order is in place, be entitled to do any act, matter or thing to give effect to the Suspension Order including, without limitation:
1. rejecting any Commercial Offer Data submitted by the relevant Party;
 2. making a Credit Call;
 3. set-off any amount owed by the relevant Party against the payment of any amounts otherwise due to the relevant Party under the Code;
 4. cancelling any Settlement Reallocation Agreement, or rejecting any Settlement Reallocation Request, to which the relevant Participant is a party; or
 5. requesting the Regulatory Authorities and System Operators or any other person to take such measures as the Market Operator, acting reasonably, decides are appropriate to give effect to the Suspension Order.
- 2.223 The Market Operator shall remove the Suspension Order if the relevant Party remedies the Default giving rise to the Suspension Order, or the circumstances giving rise to the Suspension Order no longer apply.
- 2.224 Where any Suspension Order is removed by the Market Operator, the Market Operator shall notify this to the Regulatory Authorities, the System Operators and the relevant Distribution System Operators where appropriate and shall publish a notice that the Suspension Order has been lifted.
- 2.225 The Participant that has registered the Units to which a Suspension Order applies must comply with the Suspension Order.

Termination and Deregistration

- 2.226 The Market Operator may with the prior written approval of the Regulatory Authorities issue a Termination Order where a Party is in breach of a Suspension Order, or has not remedied a Default or taken such action as required by the Market Operator within the timeframe specified in the Suspension Order.
- 2.226A The Market Operator shall include within each Termination Order a provision specifying the Required Credit Cover which the Party is required to maintain for a period of 14 months from the Termination Date. Such Required Credit Cover shall be equal to the amount of Fixed Credit Requirement applicable to the Units registered to the Party seven months before the Termination Date.

Effect of Termination Order

- 2.227 Where the Market Operator issues a Termination Order, the Termination Order shall specify the time and date from which the Termination or Deregistration will take effect and the terms of the Termination or Deregistration.
- 2.228 Intentionally blank.
- 2.229 Where the Market Operator issues a Termination Order, the Market Operator shall at the same time send a copy of the Termination Order to the

Regulatory Authorities, the System Operators and the relevant Distribution System Operators and shall publish the Termination Order.

Voluntary Termination

- 2.230 Subject to paragraph 2.231 below, a Party may apply at any time to cease to be a Party.
- 2.231 A Party shall give at least 90 Working Days notice in writing to the Market Operator (with a copy to the System Operators and the Regulatory Authorities) of its intention to cease being a Party and shall specify the time and date upon which it wishes the Termination to take effect.
- 2.231A Voluntary Termination shall have the effect of Deregistration of all of a Party's Units.
- 2.232 Following receipt of a request for Voluntary Termination, the Market Operator shall issue a Voluntary Termination Consent Order if the relevant Party has complied with the following conditions:
1. all amounts due and payable by the relevant Party pursuant to the Code have been paid in full;
 2. any outstanding Default by the relevant Party of the Code which is capable of remedy has been remedied;
 3. the written consent of the Regulatory Authorities has been obtained; and
 4. if the Party has registered Supplier Units, the terms of any applicable Metering Code have been complied with in relation to the Deregistration or transfer of those Supplier Units.
- 2.232A The Voluntary Termination shall take effect at the end of the last Trading Period of the Trading Day specified by the Market Operator in the Voluntary Termination Consent Order so long as, at that time, the relevant Party remains in compliance with the conditions set out in paragraph 2.232.
- 2.233 The Market Operator, the System Operators, the Transmission Asset Owners, the Distribution System Operators, the Transmission System Operators and the Meter Data Providers shall not be permitted to terminate their being a party to the Code except where so required by the Regulatory Authorities.

Consequences of Termination

- 2.234 When a Party is Terminated, then:
1. the Party must stop all trading in the Pool at the time and date specified in the Termination Order or the Termination Consent Order; and
 2. the Party must maintain the Required Credit Cover as specified in the Termination Order or Termination Consent Order as applicable for a period of 14 months after the Termination Date or the Voluntary Termination Date as applicable.
- 2.235 Any Termination of any Party will not affect the accrued rights or obligations of any Party which arose out of or which relate to any act or omission prior to the date of such Termination ("Relevant Date") and including:

1. payment of any amount which was or becomes payable under the Code in respect of any period before the Relevant Date (including in relation to any material dispute regarding an event before the Relevant Date even if the Notice of Dispute is given after that Relevant Date); and
 2. any outstanding breach by it of the Code or Framework Agreement.
- 2.236 A Party shall continue to be liable after its Termination in respect of any obligation under the Code for a period of 7 years or any longer period specified under any Applicable Law.
- 2.237 Any provisions of this Code which expressly, or by implication are intended to, commence or continue in effect on or after Termination of a Party shall continue to bind a Terminated Party.
- 2.238 For the avoidance of doubt, a Terminated Party shall continue to be bound by the Dispute Resolution Process in respect of any Disputes arising following its Termination.
- 2.238A Following a Termination, the relevant Party shall maintain any applicable Required Credit Cover for a period of 14 months after the Termination.

Consequences of Deregistration

- 2.238B Where any of a Participant's Units are Deregistered in accordance with the provisions of this Code, whether voluntarily or otherwise:
1. the Participant must stop all trading in the Pool in respect of the relevant Units at the time and date specified in the Termination Order or the date specified in the Deregistration Consent Order; and
 2. the Participant must maintain the Required Credit Cover specified in the Termination Order or Deregistration Consent Order as applicable in respect of the relevant Units for a period of 14 months after the Termination Date or the date specified in the Deregistration Consent Order.

DISPUTE RESOLUTION

Preliminaries

- 2.239 A "Dispute" means any claim, dispute or difference of whatever nature between any of the Parties howsoever arising under, out of or in relation to the Code or the Framework Agreement in respect of which (i) one Party has served a Notice of Dispute; or (ii) a Notice of Dispute is deemed to have been served under paragraph 2.248. A Dispute includes any Settlement Dispute.
- 2.240 A Notice of Dispute may be served on any number of Parties. Where the Market Operator reasonably determines that the resolution of a Disputed Event will impact a third Party who has not been served a Notice of Dispute, the Market Operator will inform that third Party of the existence, nature and progress of the Dispute, while maintaining the confidentiality of the Disputing Parties.
- 2.241 Intentionally blank.

- 2.242 Intentionally blank.
- 2.243 Subject to the rules concerning the commencement of Settlement Disputes set out in paragraph 2.248, a Dispute is deemed to exist when one Party notifies another Party or Parties in writing of the Dispute by way of a Dispute Notice within 28 days of that Party having become aware of the Disputed Event and in any event within 2 years of the Disputed Event having occurred.
- 2.244 The Notice of Dispute shall briefly set out the nature of the Dispute (including the Disputed Event(s)) and the issues involved. A copy of the Notice of Dispute shall be sent to the Market Operator and, where the Market Operator is a party to the Dispute, to the Regulatory Authorities.
- 2.245 Intentionally blank.
- 2.246 The provisions set out in this Dispute Resolution Process shall not prejudice or restrict the Market Operator's entitlement to seek interim or interlocutory relief directly from the appropriate Court or Courts with jurisdiction pursuant to paragraph 2.2.
- 2.247 The obligations of the Parties under the Code (including payment of any invoice amounts by the Invoice Due Date) shall not be affected by reason of the existence of a Dispute, save for as provided for in any determination of the DRB or a Court.

Settlement Disputes

- 2.248 In the event that the Market Operator does not resolve a Settlement Query within the timeframes set out in paragraph 6.62, or does not resolve a Data Query within the Data Verification Period in accordance with paragraph 6.50, the Settlement Query or Data Query, as appropriate, shall automatically become a Settlement Dispute and the Notice of Dispute shall be deemed to have been issued on the date on which the Market Operator was required to issue its determination in respect of the Settlement Query or Data Query.
- 2.249 Subject to the determination of a Court, the Market Operator shall be liable for all costs in connection with a Settlement Dispute arising by operation of paragraph 2.248.
- 2.250 In the event that a Party is dissatisfied with the Market Operator's determination in respect of a Settlement Query or Data Query, the Party that raised the Settlement Query or Data Query may raise a Dispute by issuing a Notice of Dispute to the Market Operator within 5 Working Days of receipt of the Market Operator's determination.
- 2.251 A matter which is described as a Settlement Query or Data Query under Section 6 shall not be raised as a Dispute save in accordance with paragraph 2.248 or 2.250.

Objectives of the Dispute Resolution Process

- 2.252 It is intended that the Dispute Resolution Process set out in or implemented in compliance with the Code and described in detail in the following paragraphs should to the extent possible:
1. be simple, quick and inexpensive;
 2. preserve or enhance the relationship between the Disputing Parties;

3. resolve and allow for the continuing and proper operation of the Code and the Pool having regard to the Objectives of the Code;
4. resolve Disputes on an equitable basis in accordance with the provisions of the Code having regard to the Objectives of the Code;
5. take account of the skills and knowledge that are required for the relevant procedure; and
6. encourage resolution of Disputes without formal legal representation or reliance on legal procedures.

Dispute Resolution Board

- 2.253 Where a Notice of Dispute has been served in accordance with paragraph 2.243, 2.248, or 2.250 a representative of each of the Disputing Parties, each with authority to resolve the Dispute, must meet within 10 Working Days of the date of the Notice of Dispute to seek in good faith to resolve the Dispute. The Disputing Parties shall negotiate in good faith and attempt to agree a resolution.
- 2.254 If the Disputing Parties are unable to reach agreement within a further period of 10 Working Days of meeting in accordance with paragraph 2.253, the Dispute may within a further period of 20 Working Days be referred by any Disputing Party to a Dispute Resolution Board (“DRB”) by way of notice in writing to the other Disputing Party or Parties (“Referral Notice”) unless expressly provided otherwise in the Code. The Disputing Party shall immediately send a copy of the Referral Notice to the Market Operator (or to the Regulatory Authorities where the Market Operator is a Disputing Party), and the Market Operator shall forward the Referral Notice to the chairperson of the Panel referred to in paragraph 2.257. The Referral Notice shall state that it is given under this section and identify the relevant Dispute and Notice of Dispute.
- 2.255 The Disputing Parties may mutually agree in writing with the written consent of the Market Operator (or the Regulatory Authorities where the Market Operator is a Disputing Party) to extend the period for negotiation or any other time period set out in the Dispute Resolution Process.
- 2.256 Referral of a Dispute to a DRB in accordance with the Dispute Resolution Process and compliance with the provisions set out herein is a pre-condition to the entitlement to refer a Dispute to Court.
- 2.257 The DRB shall be comprised of either a sole member or three members and shall be appointed from a panel of available DRB members established and maintained by the Market Operator with the prior approval of the Regulatory Authorities (“the Panel”).
- 2.258 The Panel shall consist of no less than 10 members at all times. The Regulatory Authorities shall from time to time nominate a member of the Panel to act as chairperson of the Panel. The identity of the members of the Panel and the chairperson shall be published by the Market Operator. The chairperson shall be responsible for nominating the member(s) of the DRB if the parties to a Dispute fail to agree on the composition of the DRB from the members of the Panel. The members of the DRB so appointed shall be independent of any Disputing Party of any dispute on which they shall be called to deliberate. The Regulatory Authorities shall appoint a replacement

chairperson immediately on the position of chairperson being vacated on a permanent basis for any reason.

2.259 The chairperson shall nominate a vice-chairperson from time to time to perform the chairperson's function in the event of the latter's unavailability. The Market Operator shall with the prior approval of the Regulatory Authorities nominate further members to the Panel from time to time as may be necessary to fill any vacancies and to maintain the membership of the panel at 10 members. Subject to paragraph 2.260, there shall be no restriction on the ability or entitlement of the chairperson or vice-chairperson to act as a member of a DRB by virtue of holding those positions.

2.260 The Panel shall include suitably qualified experts from relevant disciplines who:

1. are experienced in and familiar with alternative dispute resolution procedures which do not involve litigation; and/or
2. have an understanding of the electricity industry or have the ability quickly to acquire such an understanding.

2.261 Intentionally blank.

2.262 Where there are no more than two Disputing Parties, the Disputing Parties may agree within 10 Working Days of date of receipt by the Receiving Party of the Referral Notice to establish a sole member DRB or a three member DRB. If the Disputing Parties to a Dispute agree to establish a sole member DRB, they shall agree to appoint the sole DRB member within a further 5 Working Days. If the Disputing Parties agree on a three member DRB, then each Disputing Party will within a further period of 5 Working Days nominate one member of the Panel to the DRB and the two members so appointed will appoint the third member.

2.263 In the event the Disputing Parties do not within the relevant period agree on:

1. the number of members of the DRB then the chairperson of the Panel will within a further period of 10 Working Days of a request by any or all of the Disputing Parties determine the number of members of the DRB and appoint the appropriate number from the Panel; or
2. if having agreed a sole member DRB, the identity of the sole member then the chairperson of the Panel will within a further period of 10 Working Days of a request by any or all of the Disputing Parties appoint the sole member from the Panel.

then, the chairperson of the Panel will within a further period of 10 Working Days of a request by any or all of the Disputing Parties determine the number of members of the DRB and appoint the appropriate number from the Panel or, in the case of the appointment of a sole member DRB, appoint the sole member from the Panel. In making any such determination and appointment, the chairperson will take account of the complexity of the Dispute as set out in the Dispute Notice and the range of issues which may be relevant.

2.264 In the event that the Disputing Parties agree upon a three member DRB but a Disputing Party concerned fails to make a nomination from the Panel then the chairperson, upon notification of the failure, shall make the necessary

nomination from the Panel within 10 Working Days of notification that there has been a failure by one Disputing Party to make a nomination.

- 2.265 Where there are more than two Disputing Parties to any Dispute then the DRB shall be appointed by the chairperson unless all Disputing Parties have, within 10 Working Days of the date of receipt by the counter-Parties of the Referral Notice, agreed the composition of the DRB both as to the number of members which shall be either one or three and as to the identity of member(s) to be selected from the Panel. On notification that the 10 Working Day period has expired without such agreement, the chairperson shall (a) determine whether a sole member or three member DRB is appropriate and; (b) appoint the member or members of the DRB from the Panel, and shall notify the Disputing Parties. In making any such determination and appointment, the chairperson will take account of the complexity of the Dispute as set out in the Notice of Dispute and the range of issues which may be relevant.
- 2.266 The agreement between the Disputing Parties and either the sole member DRB or each of the three members of a three member DRB shall incorporate by reference the Dispute Resolution Agreement contained in Appendix O to the Code, with such amendments as are agreed between them.
- 2.267 Each Disputing Party shall be responsible for paying a proportionate and equal share of the remuneration of the DRB in respect of the Dispute involving them. Each Party to the DRB procedure shall bear its own costs of the procedure.
- 2.268 Without prejudice to paragraph 2.267, the DRB may make a decision as to costs in any Dispute which shall be binding on the Disputing Parties.
- 2.269 In the event any member of a DRB declines to act or is unable to act as a result of death, disability, incapacity, resignation or termination of appointment, the chairperson of the Panel or, where the chairperson of the Panel is the member affected, the vice-chairperson of the Panel shall appoint a replacement within 5 Working Days of notification of the relevant event. Such appointment shall be final and binding.
- 2.270 The appointment of any member of the DRB may be terminated by unanimous agreement of the Disputing Parties. Should this occur, paragraph 2.269 shall apply.
- 2.271 Disputing Parties shall continue to perform all of their obligations and functions as required by the Code including, for the avoidance of doubt, fulfilling any payment obligations as payment falls due.

Obtaining the DRB's Decision

- 2.272 For the purpose of paragraph 2.254, a Dispute is deemed to be referred to the DRB as of the date of the receipt of the Referral Notice by the Market Operator.
- 2.273 Disputing Parties shall promptly make available to the DRB all such additional information as they consider appropriate or as the DRB may require for the purposes of making a decision on such Dispute. The DRB may request any information it considers relevant.
- 2.274 The DRB shall be entitled to determine the applicable procedure including the manner and the timing of any written submissions and any oral hearings. In determining the applicable procedure, the DRB shall have regard to the

considerations set out in paragraph 2.252 above and to the Code Objectives as well as the number of Disputing Parties. The DRB shall not act as arbitrator.

- 2.275 The DRB shall give its decision within (i) 30 Working Days after the appointment of the DRB where there are no more than two Disputing Parties; (ii) 40 Working Days after the appointment of the DRB where there are more than two Disputing Parties; or (iii) such other period as may be proposed by the DRB and approved by the Disputing Parties. Such decision shall be in writing and give reasons, state that it is given under this paragraph 2.275 and be consistent with the Code. The decision shall be binding on all Disputing Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement pursuant to paragraph 2.279. The Parties shall continue to proceed to comply with the Code in all respects.
- 2.276 If any Disputing Party is dissatisfied with the DRB's decision, then that Party may, within 15 Working Days after receiving the decision, give notice to the other Disputing Party or Parties and the DRB in writing of its dissatisfaction. If the DRB fails to give its decision within the relevant period set out in paragraph 2.275, then any Disputing Party may, within 15 Working Days after such period has expired, give notice to the other Disputing Party or Parties and the DRB in writing of its dissatisfaction.
- 2.277 A notice of dissatisfaction referred to in paragraph 2.276 shall state that it is given under paragraph 2.276, shall set out the Dispute and the reason(s) for dissatisfaction. Except as stated in paragraph 2.282, no Disputing Party shall be entitled to commence any Court proceedings of whatever nature in relation to or in connection with a Dispute unless a notice of dissatisfaction has been given in accordance with paragraph 2.276.
- 2.278 If the DRB has given its decision on a Dispute to the Disputing Parties and no notice of dissatisfaction has been given by any Disputing Party within 15 Working Days after the date of the DRB's decision, then the decision shall be final and binding upon all Disputing Parties.

Amicable Dispute Settlement

- 2.279 Where notice of dissatisfaction has been given under paragraph 2.276 above, the Disputing Parties shall attempt to settle the dispute amicably before the commencement of any court proceedings may take place. However, unless both Parties agree otherwise Court proceedings may be commenced on or after the twenty first Working Day after the day on which notice of dissatisfaction was given, even if no attempt at amicable settlement has been made.

Court Proceedings

- 2.280 Unless settled amicably, any Dispute in respect of which the DRB's decision (if any) has not become final and binding may only be finally settled by Court proceedings.
- 2.281 A Disputing Party may, in the proceedings before any Court having jurisdiction, adduce evidence or raise arguments not previously put before the DRB in the course of its consideration of the Dispute or included in the notice of dissatisfaction given by that Party. Any decision of the DRB shall be admissible as evidence in any Court proceedings.

Failure to Comply with DRB's Decision

2.282 In the event that:

1. no Disputing Party has given notice of dissatisfaction within the period stated in paragraph 2.276; and
2. the DRB's related decision (if any) has become final and binding; and
3. a Disputing Party fails to comply with this decision,

then any other Disputing Party may take such action as it deems necessary, including the commencement of court proceedings, to enforce the relevant DRB decision. There shall be no mandatory reference to the Dispute Resolution Board or requirement to refer the matter to amicable settlement in respect of such a reference.

SUPPLIER OF LAST RESORT

2.282A Steps shall be taken to ensure that in the event of the Suspension of any Supplier Unit, all demand sites, final customers or consumers represented within each such Supplier Unit will be treated as registered to the Supplier of Last Resort for the Jurisdiction in which that Unit is connected, with effect from the date of Suspension of the relevant Unit.

2.282B Where, by operation of 2.282A, demand sites, final customers or consumers represented within more than one of a Party's Units, all of which are connected in a single Jurisdiction, are treated as registered to the Supplier of Last Resort for that Jurisdiction, the Demand of all such persons shall be incorporated within a single Unit that is treated as registered by the Supplier of Last Resort.

LIMITATION OF LIABILITY

2.283 No Party shall be liable to any other Party for loss arising from any breach of the Code or the Framework Agreement other than for loss resulting directly from such breach (but without prejudice to any other provision of the Code which excludes or limits liability in respect of any breach for loss directly resulting from such breach) and which was reasonably foreseeable as not unlikely to occur in the ordinary course of events from such breach in respect of:

1. physical damage to the property of any other Party or its officers, employees, or agents; and/or
2. the liability (in law) of any other such Party to any other person for loss in respect of physical damage to the property of such other person.

2.284 Intentionally blank.

2.284A Intentionally blank.

2.285 No Party shall in any circumstances be liable to any other Party in respect of any Default for:

1. loss of profits, loss of income, loss of contract, loss of anticipated savings, loss of investment return, loss of goodwill, loss of use, or loss of reputation; or

2. any indirect or consequential loss or any incidental or special damages (including punitive damages); or
 3. loss resulting from the liability of any other Party to any other person howsoever and whensoever arising save as provided in paragraph 2.283.2 and 2.287.
- 2.286 The limitations of liability set out in the preceding paragraphs are without prejudice to any provision of the Code or the Framework Agreement which provides for an indemnity, or which provides for any payment to be made under the Code.
- 2.287 Nothing in the Code or the Framework Agreement shall limit or exclude the liability of any Party for death or personal injury resulting from the negligence of such Party or for fraudulent misrepresentation or any other liability which cannot be limited or excluded under Applicable Laws.
- 2.288 All terms, conditions, warranties and representations implied pursuant to Sections 13 to 15 of the Sale of Goods Act, 1893 and Section 39 of the Sale of Goods and Supply of Services Act, 1980 (Ireland) and Sections 13 to 15 of the Supply of Goods Act, 1979 (United Kingdom) and Sections 2 to 5 and 7 to 10 of the Supply of Goods and Services Act, 1982 (United Kingdom) are excluded to the fullest extent permitted by law.
- 2.289 Intentionally blank.
- 2.290 The rights and remedies of the Parties pursuant to the Code and the Framework Agreement as set out therein are, save as expressly provided otherwise, cumulative and are in exclusion of all other substantive (but not procedural) rights or remedies express or implied whether provided by common law, statute, tort, in equity or otherwise by law. Without prejudice to the foregoing and paragraph 2.302 (Waiver), each Party to the fullest extent permitted by law:
1. waives any rights or remedies; and
 2. releases each other Party from any duties, liabilities, responsibilities or obligations
- arising or provided by common law, statute, tort, in equity or otherwise by law in respect of the Code.
- 2.291 Without prejudice to the preceding paragraph 2.290, where any provision of the Code or decision of the DRB provides for any amount to be payable by a Party upon or in respect of that Party's Default, each Party agrees and acknowledges that the remedy conferred by such provision or decision is exclusive of and is in substitution for any remedy in damages in respect of such Default or the event or circumstance giving rise thereto.
- 2.292 Nothing in the Code or the Framework Agreement relating to limitation on liability shall prevent or restrict any Party from enforcing any obligation owed to it under or pursuant to the Code in accordance with the provisions of the Code and subject to such limitation on liability.
- 2.293 Save as expressly provided otherwise in the Code or the Framework Agreement, nothing in paragraphs 2.283 to 2.290 shall apply to or restrict the exercise or enforcement of any rights or remedies which one Party may have against another Party or person pursuant to any other agreement besides the Code and the Framework Agreement.

- 2.294 For the purposes of paragraphs 2.283, 2.285 and 2.287, references to a “Party” includes any of its Participants, officers, employees or agents, and each Party shall hold the benefit of those paragraphs for itself and as trustee and agent for its officers, employees and agents.
- 2.295 Intentionally blank.
- 2.296 Each of paragraphs 2.283 to 2.294 shall be construed as a separate and severable contract term, and shall remain in full force and effect and shall continue to bind the Parties even if a Party ceases to be a Party to the Code or the Code is terminated.

FORCE MAJEURE

- 2.297 For the purposes of the Code, “Force Majeure” means any event beyond the reasonable control of the Affected Party and which could not have been reasonably prevented or the consequences of which could not have been prevented by Prudent Electric Utility Practice and which is not due to the act, error, omission, breach, default or negligence of the Affected Party, its employees, agents or contractors and which has the effect of preventing the Affected Party from complying with its obligations under this Code, and including, without limitation:

1. acts of terrorism;
2. war (declared or undeclared), blockade, revolution, riot, insurrection, civil commotion, invasion or armed conflict;
3. sabotage or acts of vandalism or criminal damage;
4. natural disasters and phenomena, including extreme weather or environmental conditions, fire, meteorites, the occurrence of pressure waves caused by aircraft or other aerial devices travelling at supersonic speeds, impact by aircraft, volcanic eruption, explosion, including nuclear explosion, radioactive or chemical contamination or ionising radiation; or
5. nationwide or industry wide strikes, lockouts or other industrial actions or labour disputes provided that such occurrence is not limited to the Affected Party and/or its suppliers, contractors, agents or employees;
6. intentionally blank;

or other events beyond the Affected Party’s reasonable control and which could not be reasonably be expected to comply with in accordance with Prudent Electric Utility Practice provided that Force Majeure shall not include:

7. any inability (however caused) of an Affected Party to pay any amounts owing under the Code and/or a lack of funds or Credit Cover;
8. mechanical or electrical breakdown or failure of machinery, plant or systems owned or operated by the Affected Party; or
9. the failure or inability of the Affected Party’s IT systems or manual processes to perform any function necessary for that Party to comply with the Code.

other than where such events arise as a result of the circumstances in subparagraphs 1-6 above.

- 2.298 Intentionally blank.
- 2.299 In the event of the Affected Party other than the Market Operator being unable to perform all or any of its obligations under this Code by reason of Force Majeure:
1. the Affected Party shall notify the Market Operator of the circumstances of Force Majeure, identifying the nature of the event, its expected duration and the particular obligation(s) affected to enable the Market Operator to assess whether Force Majeure applies;
 2. if the Market Operator finds that the conditions in paragraph 2.297 are satisfied, it shall notify all Parties that the Affected Party is subject to Force Majeure;
 3. the Affected Party shall furnish reports at such intervals as the Market Operator may reasonably request in respect of the circumstance of Force Majeure during the period of Force Majeure;
 4. no obligations of any Party that arose before the Force Majeure and which can reasonably be expected to be performed are excused as a result of Force Majeure;
 5. on the occurrence of the Force Majeure, the Affected Party shall consult with the Market Operator as to how best to give effect to the obligations of the Affected Party under this Code so far as is reasonably practicable during the period of Force Majeure;
 6. the Affected Party shall use all reasonable efforts to remedy and mitigate the consequences of any Force Majeure to enable it to resume full performance of its obligations under the Code insofar as such is practicable during any Force Majeure; and
 7. the Affected Party shall resume full performance of its obligations under the Code on cessation of any Force Majeure and shall provide the Market Operator with written notice to that effect without delay.
- 2.300 Intentionally blank.
- 2.301 Where the Market Operator is affected by Force Majeure, the Market Operator shall immediately inform the Regulatory Authorities of such. Where the Market Operator is affected by an event of Force Majeure:
1. no obligations of any Party that arose before the Force Majeure and which can reasonably be expected to be performed are excused as a result of Force Majeure;
 2. the Market Operator in consultation with, and where required by, the Regulatory Authorities, shall do all acts to mitigate the consequences of the Force Majeure to enable it to resume the full performance of its functions and obligations under the Code;
 3. the Market Operator shall resume full performance of its obligations under the Code on cessation of any Force Majeure and shall inform the Regulatory Authorities of this; and
 4. the Market Operator shall be relieved of its obligations only for so long as and to the extent that the occurrence of the Force

Majeure and/or its effects could not be overcome by measures which the Market Operator might reasonably be expected to take acting prudently with a view to continuing or resuming performance of its obligations as appropriate including, where applicable, the implementation of Administered Settlement.

- 2.301A When an Affected Party is rendered wholly or partially unable to perform all or any of its obligations under the Code by reason of Force Majeure, the Affected Party's relevant obligations under this Code shall be suspended and the Affected Party shall be relieved from liability, subject to paragraph 2.301B, in respect of such obligations provided that such liability and suspension shall be of no greater scope and of no longer duration than is required by the Force Majeure.
- 2.301B The Affected Party shall be relieved from liability only for so long as and to the extent that the occurrence of Force Majeure and/or the effects of such occurrence could not be overcome by measures which the Affected Party might reasonably be expected to take as a Prudent Industry Operator with a view to continuing or resuming performance of its obligations as appropriate. Notwithstanding the foregoing, Force Majeure shall not relieve any Affected Party from any liability to make any payments due under the Code save to the extent that any failure to pay is caused by Force Majeure affecting all reasonable means of payment in which event on the cessation of the Force Majeure event, the Affected Party shall pay Interest on any amounts due from the Payment Due Date to the actual date of payment.

WAIVER

- 2.302 No failure to exercise, nor any delay in exercising, on the part of any Party hereto any right or remedy under the Code or the Framework Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any right or remedy prevent any further or other exercise thereof or the exercise of any other right or remedy under the Code or the Framework Agreement.

SEVERANCE

- 2.303 Each of the provisions of the Code and the Framework Agreement is severable. If at any time any provision or part of a provision of the Code or the Framework Agreement is or becomes illegal, invalid or unenforceable in any respect for the purposes of any Applicable Law or by the decision of any Competent Authority, it shall be deemed severed from the Code and the legality, validity or enforceability of the remaining provisions (in whole or in part) of the Code or the Framework Agreement shall not in any way be affected or impaired thereby.

THIRD PARTY BENEFICIARIES

- 2.304 Subject to paragraph 2.305, a person who is not a Party shall not have the right (whether under the Contracts (Rights of Third Parties) Act 1999, or otherwise) to enforce any provision of the Code or the Framework Agreement, and the Code and the Framework Agreement shall not be construed as granting rights to or creating any duty to, or standard of care with reference to, or any liability to, any person who is not a Party.
- 2.305 Where rights are granted to the Regulatory Authorities or the Market Auditor pursuant to the Code or the Framework Agreement, the Parties confirm and acknowledge that the Regulatory Authorities, or the Market Auditor, as

applicable, shall be entitled to enforce the rights granted to them under the Code as against any other party to the Code by virtue of the contracts (Rights of Third Parties) Act, 1999.

- 2.305A Subject to any express rights which the Regulatory Authorities have under the Code and to any rights, powers or functions of the Regulatory Authorities under Applicable Laws, where a person who is not a party to the Code has a right to enforce any provisions of the Code pursuant to paragraph 2.305, the Parties may vary or terminate the Code in accordance with its provisions and without requiring the consent of that person.
- 2.306 Except where expressly provided, the Code and the Framework Agreement shall not be interpreted or construed as creating an association, agency, joint venture or partnership between the Parties and nothing in the Code or the Framework Agreement shall give any Party the right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or to be an agent or representative of, or otherwise to bind, any other Party.

ASSIGNMENT

- 2.307 Except with the prior written consent of the Regulatory Authorities, or as otherwise expressly provided herein, a Party shall not assign or transfer or purport to assign or transfer all or any of its rights or obligations under the Code or the Framework Agreement. Any request to assign or transfer any or all of a Party's rights under the Code or the Framework Agreement shall be notified to the Market Operator and shall be subject to the consent of the Regulatory Authorities. In giving consent under this paragraph, the Regulatory Authorities may impose such conditions as they determine are necessary for the purposes of the proper functioning of the Pool.
- 2.308 A Party may authorise a Data Processing Entity to submit Data in respect of its Units as provided for in Section 3, provided that each Party shall always remain liable at all times for fulfilling its obligations under the Code.
- 2.309 Intentionally blank.

ENTIRE AGREEMENT

- 2.310 The Code and the Framework Agreement together constitute the whole and only agreement between all of the Parties hereto relating to the operation of the Pool and supersede all prior representations, arrangements, understandings and agreements between the Parties (whether written or oral) relating to the subject matter hereof. Each Party warrants to the others that, in entering into this Agreement, it has not relied on any representation, arrangement, warranty, understanding, or agreement not expressly laid out or referred to in the Code or the Framework Agreement. Nothing in this paragraph shall operate so as limit or exclude any liability of any one of the Parties to any other Party in respect of fraudulent misrepresentation.

PUBLICATION OF THE CODE

- 2.311 The Market Operator shall at all times publish the current, effective version of the Code. The published version of the Code shall be amended to reflect any Modifications as soon as such Modifications take effect. The date of publication of the complete amended version of the Code shall not affect the date of coming into effect of the relevant Modification. The Market Operator

shall also publish at all times a list of pending Modifications which have been approved (if any) but have not yet come into effect.

- 2.311A The Market Operator shall not be obliged to publish any material that it reasonably believes may be of an obscene or libellous nature.

CONFIDENTIAL INFORMATION

- 2.312 Confidential Information means, in relation to any Party, information which is designated in writing by that Party as “confidential information”, or which would be considered as being confidential by its nature, and which is disclosed in connection with the Code, the Framework Agreement or the disclosing Party’s activities in connection with the Code. Confidential Information shall not include:

1. the existence of and terms of the Code or the Framework Agreement; and
2. Data Records or items which are at the relevant time required to be published in accordance with this Code.

- 2.313 For the purpose of this section, a “Recipient Party” is any Party which receives, acquires possession or control of, or otherwise becomes aware of Confidential Information of another Party. A “Disclosing Party” is any Party by whom the Confidential Information is disclosed.

- 2.314 Each Recipient Party shall keep confidential any Confidential Information relating to any Disclosing Party and shall:

1. use the Confidential Information only for the purpose of performing its obligations under the Code and for no other purpose whatsoever;
2. not at any time disclose, reveal, or otherwise disseminate the Confidential Information to any person or Party whatsoever or to permit any person or Party any form of access to the Confidential Information without the prior written consent of the Disclosing Party;
3. treat and safeguard as private and confidential all Confidential Information received at any time keeping it and treating it with the same care as any Prudent Industry Operator would be expected to exercise;
4. not use the Confidential Information, or permit or assist a third party to use the Confidential Information, to procure a commercial advantage over, or an advantage which is in any way likely to be prejudicial, whether directly or indirectly to, the Disclosing Party or to its business, goodwill or reputation;
5. not use the Confidential Information or permit or assist a third party to use the Confidential Information to attract management, employees, advisors, agents, representatives, consultants, contractors, sub-contractors or customers away from the Disclosing Party.

Exceptions

- 2.315 The obligations set out in paragraph 2.314 do not apply to:

1. information which at the time of disclosure to the Receiving Party is within the public domain;
2. information which comes into the public domain other than by reason of a breach of the Code or of any, Legal Requirement by the Recipient Party; or
3. information which was lawfully within the possession of the Recipient Party prior to its being furnished to it by or on behalf of the Disclosing Party as evidenced by the written records of the Recipient Party or the sworn evidence of an officer of the Recipient Party, provided that the source of such information was not bound by a confidentiality agreement or any other obligation of secrecy in respect thereof.

Permitted Disclosures

2.316 Nothing in paragraph 2.314 shall prevent the disclosure of Confidential Information by a Recipient Party:

1. to any lending or other financial institution proposing to provide or arrange the provision of finance or Credit Cover to the Recipient Party, where and to the extent that the disclosure of such Confidential Information is reasonably required for the purposes of the provision or arrangement of such finance or Credit Cover, and provided that the person to whom the Confidential Information is disclosed is bound by confidentiality provisions equivalent to those in paragraph 2.314;
2. as may be required by the regulations of any recognised stock exchange on which the share capital of the Recipient Party (or any parent or affiliated undertaking of the Recipient Party) is or is proposed to be from time to time listed or dealt in, and the Recipient Party shall, if reasonably practicable prior to making the disclosure, and in any event as soon as reasonably practicable thereafter, supply the Disclosing Party with a copy of such disclosure or statement and details of the persons to whom the Confidential Information is to be, or has been, disclosed. Where a copy of such disclosure or statement has been supplied prior to making the disclosure, the Disclosing Party may give comments on that disclosure or statement to the Recipient Party;
3. as may be required to comply with Legal Requirements of the Recipient Party;
4. as may be necessary in relation to an application by any person for a connection to or use of the Transmission System or Distribution System in accordance with Section 34 of the Energy Regulation Act, 1999 in Ireland or with the Northern Ireland Grid Code or for use of an Interconnector Unit;
5. as may be required by the DRB or a Court having competent jurisdiction; or
6. as may be otherwise agreed in writing by the Disclosing Party prior to disclosure by the Recipient Party.

- 2.317 The confidentiality obligations set out in paragraphs 2.314 to 2.316 shall continue to apply to any Terminated Party in respect of Confidential Information which came into its possession while it was a Party.

FREEDOM OF INFORMATION ACTS

- 2.318 All Parties confirm and acknowledge that although they may inform the Market Operator, the System Operators and/or the Regulatory Authorities in writing that specific data submitted under this Code may be classified as Confidential Information, such information may be subject to disclosure in accordance with the provisions of the Freedom of Information Act 1997 and 2003 (Ireland) and/or the Freedom of Information Act, 2000 (Northern Ireland) where applicable, All Parties acknowledge that any such statement does not bind the Market Operator, any System Operator or the Regulatory Authorities nor guarantee that any such described information will not be subject to disclosure under the Freedom of Information Acts.

DATA PROTECTION

- 2.319 Intentionally blank.
- 2.320 Without prejudice to the generality of any other provision of this Code, each Party shall comply with applicable requirements of Data Protection Legislation in respect of any Personal Data which it Processes in the course of its activities in connection with the Code. All Parties shall use their reasonable endeavours to enter into any contract necessary to legitimise the Processing of Personal Data under Data Protection Legislation.
- 2.321 Each Party (“Indemnifying Party”) shall indemnify each other Party and the Regulatory Authorities in respect of any loss or liability howsoever arising incurred by that Party, or the Regulatory Authorities, as appropriate, as a result of a breach of preceding paragraph 2.320 by the Indemnifying Party.

NOTICES

- 2.322 Paragraphs 2.323 to 2.333 apply to Notices which shall, for the avoidance of doubt, include:
1. Default Notices;
 2. Suspension Orders;
 3. Termination Orders;
 4. Dispute Notices (including Settlement Disputes) and the current status of each;
 5. Referral Notices;
 6. Emergency Notifications;
 7. Notices of Dissatisfaction;
 8. Force Majeure Notice;
 9. Notice of revocation of an Intermediary’s authority under paragraph 2.75;
 10. Notice of proposed revocation of an Interconnector Administrator’s authority under paragraph 2.53C;
 11. Notice of resignation of an Interconnector Administrator under paragraph 2.53D;

12. Notice of proposed revocation of the authority of the Participant in respect of an Interconnector Error Unit under paragraph 2.59B;
13. Notice of proposed Deregistration of the Interconnector Error Unit under paragraph 2.59C

Notice to Other Parties

- 2.323 Any Notices required to be given for the purposes of the Code shall be given in writing unless otherwise specified in the Code.
- 2.324 Any Notice required to be given in writing may be in the form of a letter delivered by hand, or sent by pre-paid registered post fax or email.
- 2.325 Notices in writing shall be addressed and sent to the receiving Party at the address, fax number or email address specified by the receiving Party for the purposes of the receipt of Notices under the Code or such other address, fax number or email address as the receiving Party may from time to time specify by notice given in writing in accordance with this Section to the Party giving the notice.
- 2.326 Notices shall be marked for the attention of the representative of the receiving Party specified for the purpose of receipt of Notices or such other person as may be notified by the receiving Party to the Sending Party in accordance with the provisions of this Section.
- 2.327 Any Notice given by fax or email shall be confirmed by forwarding a copy of the same by pre-paid registered post provided that failure to receive such confirmation shall not prejudice effective receipt of the notice under the following paragraph 2.328.
- 2.328 Any Notice in writing shall be deemed to have been received:
 1. in the case of delivery by hand, when delivered; or
 2. in the case of prepaid registered post, on the second Working Day following the day of posting or, if sent from another jurisdiction other than Northern Ireland or Ireland, on the fifth Working Day following the day of posting; or
 3. in the case of fax, at 5pm on the Working Day on which the Notice was sent as evidenced by a fax transmission report of the sending Party showing that the Notice has been transmitted; or
 4. in the case of email when the email enters the receiving Party's IT system.
- 2.329 Each Party shall, on registration, specify at least one postal address, fax number, and email address and one representative for the service of Notices in writing and may amend such details by notifying the relevant Market Operator representative in writing.
- 2.330 A Party may specify different addresses (including email addresses) or fax numbers and representatives for the purposes of Notices of different kinds or relating to different matters.

Notice to the Regulatory Authorities

- 2.331 Any Notice to the Regulatory Authorities shall be in writing (which for the purposes of this paragraph shall not include email) and shall be addressed:

1. in respect of matters relating to a particular Unit or Participant, to the relevant Regulatory Authority at such address or number and marked for the attention of such person as that Regulatory Authority may publish; and
 2. in respect of other matters, to each Regulatory Authority, or to such single address as may be published by the Regulatory Authorities for the purposes of the joint receipt of notifications under the SEM.
- 2.332 Notices to the Regulatory Authorities shall be effective upon actual receipt.

Market Operator Notices

- 2.333 Notices which are required to be published by the Market Operator shall be published on its website within any applicable timeframes set out in this Code.

3. DATA AND INFORMATION SYSTEMS

GENERAL

Introduction and Interpretation

- 3.1 This Section 3 sets out rules relating to the systems and procedures for the communication of Data Transactions by a Party to the Market Operator and by the Market Operator to one or more Parties and the rules and principles for the publication by the Market Operator of data relating to the trading arrangements in the Pool.
- 3.2 A Party (other than the Market Operator) may appoint a Data Processing Entity, in accordance with Agreed Procedure 1 “Participant and Unit Registration and Deregistration”, to do any or all of the following tasks for and on behalf of any of the Party’s Participants: (i) submit Data Transactions; (ii) to raise Data Queries or Settlement Queries on Settlement Statements; or (iii) to view but not modify Settlement Statements.
- 3.2A The Isolated Market Systems used by any Data Processing Entity shall be required to comply with the requirements set out in the Code and to pass Communication Channel Qualification as described in the relevant provisions of Agreed Procedure 3 “Communication Channel Qualification”. A Party shall at all times remain liable for performance of and compliance with the Code by its Data Processing Entity.
- 3.2B An obligation on a Party or Participant (except the Market Operator) in relation to the submission of Data Transactions shall, where that Party has appointed a Data Processing Entity, include an obligation to procure that it shall be done by the relevant Data Processing Entity.
- 3.2C Where the Code requires data forming part of a Data Transaction to be “submitted”, it must be submitted in accordance with the applicable rules for submission of Data Transactions as set out in Section 3 and Appendices B to J.
- 3.2D Where the Market Operator is required to “issue”, “submit” or “send” data to a Party, unless otherwise specified, the Market Operator may meet this requirement in respect of users of Communication Channels 2 and 3 by making the data available for retrieval by the relevant Party and will notify the Party that the data is available.

DATA COMMUNICATION CHANNELS

Communication Channels Types

- 3.3 The Market Operator shall establish and maintain three distinct Communication Channels, as more particularly described in Agreed Procedure 3 “Communication Channel Qualification”:
1. Type 1 Channel, meaning manual communication comprising but not limited to paper based communications and fax communications;
 2. Type 2 Channel meaning assisted communication (human to computer);and
 3. Type 3 Channel meaning automated communication (computer to computer).

- 3.4 Each Participant must designate, by Notice to the Market Operator, one or both of the Type 2 Channel and the Type 3 Channel.
- 3.5 Intentionally blank.
- 3.6 Intentionally blank.
- 3.7 Agreed Procedure 4 “Data Transaction Submission and Validation” sets out the specific rules relating to Data Transactions.

Obligation of Parties to Maintain a Functional Interface to the Communication Channels

- 3.8 A Party or Participant must meet any requirements as specified pursuant to paragraph 2.30.2 to use a Communication Channel.
- 3.9 Subject to paragraph 3.11, a Participant must remain qualified for each Communication Channel which it designates in accordance with Agreed Procedure 3 “Communication Channel Qualification” for the duration of its participation in the Pool.
- 3.10 The Market Operator may temporarily suspend a Participant’s use of a Type 2 or Type 3 Channel, or both, where the Market Operator reasonably determines, as provided for in Agreed Procedure 3 “Communication Channel Qualification”, that the Participant’s communications over that Channel materially fail to meet the standards in Agreed Procedure 3 “Communication Channel Qualification” or Agreed Procedure 5 “Data Storage and IT Security”. In such an event, the Market Operator shall immediately contact the affected Participant to explain the reason for the suspension, and shall take steps with the Participant to resolve the issue.
- 3.11 A Party may apply to change its designated Communication Channel(s) for any of its Participants in accordance with Agreed Procedure 1 “Participant and Unit Registration and Deregistration” and Agreed Procedure 3 “Communication Channel Qualification”, provided that it continues to designate at least one of Type 2 Channel and Type 3 Channel for each Participant. No such change shall take effect without the Market Operator’s prior written consent which shall not be unreasonably withheld or delayed.
- 3.12 The Market Operator shall provide technical and operational advice to Parties in relation to the Communication Channels and the interfaces to those Communication Channels. This is more particularly detailed in Agreed Procedure 11 “Market System Operation, Testing, Upgrading, and Support”.
- 3.13 Intentionally blank.

Obligation on Parties to Maintain IT Security

- 3.14 Parties shall ensure that their interfaces for Type 2 and Type 3 Channels shall comply with the IT security requirements set out or referenced in Agreed Procedure 5 “Data Storage and IT Security”.
- 3.15 Intentionally blank.

Specific IT Security Obligations on the Market Operator

- 3.16 The Market Operator shall put in place and maintain procedures for the security of the Market Operator’s entire Isolated Market System in accordance with Agreed Procedure 5 ‘Data Storage and IT Security’.

- 3.16A Notwithstanding the requirements of the Modifications Process, no document required to be published in connection with the process of modifying Agreed Procedure 5 'Data Storage and IT Security' shall contain a level of detail such that its publication could reasonably be expected to compromise the implemented security of the Market Operator's entire Isolated Market System.

Obligation on Parties during Testing and Upgrading of Isolated Market Systems and Communication Channels

- 3.17 The Market Operator shall co-ordinate and facilitate testing of the Market Operator's Isolated Market Systems and the interfaces to Communication Channels as described under Agreed Procedure 11 "Market System Operation, Testing, Upgrading, and Support".
- 3.18 The Market Operator shall provide reasonable prior notice to all affected Parties of any proposed testing, upgrading or down-time of the Market Operator's Isolated Market System or the Communication Channels.
- 3.19 The Market Operator shall, where practicable, schedule testing, upgrading or down-time of the Market Operator's Isolated Market System or the Communication Channels in consultation with Parties under Agreed Procedure 11 "Market System Operation, Testing, Upgrading, and Support". The Market Operator will endeavour to reasonably minimise the impact of the testing or down-time of the Market Operator's Isolated Market System on Parties. The Market Operator will ensure that the scheduled testing or down-time will not preclude Settlement and will not preclude Offers being submitted before Gate Closure for any Trading Day.
- 3.20 Despite paragraph 3.19, scheduled Market Operator Isolated Market System down-time will not constitute failure by the Market Operator to fulfil its obligations under the Code where:
1. the down-time is of reasonable duration, and
 2. the procedure of notification under paragraph 3.18 was followed by the Market Operator.
- 3.21 All Parties shall facilitate the co-ordination of testing and upgrading of the Communication Channels and the Market Operator's Isolated Market Systems as and when requested by the Market Operator in connection with a proposed event of which notice has been given pursuant to paragraph 3.18.
- 3.22 Any Party proposing to undertake any testing or upgrading work which may impact on the interfaces of the Market Operator or other Party's Isolated Market Systems shall inform the Market Operator of this in advance. The Market Operator shall be entitled to issue instructions in relation to the undertaking of any such work for the purposes of the proper operation of the Pool, and the Party concerned shall comply with such instructions. Each Party shall ensure that any testing or upgrading of its own Isolated Market System is undertaken at a time and in a manner so as to minimise any adverse effect for any other Party's Isolated Market System or the use by any other Party of any Communication Channel.

Data categories and Data Transactions

- 3.23 Intentionally blank.

- 3.24 The requirements and procedures relating to Data Transactions are more particularly described in Appendices B-J and Agreed Procedure 4 "Data Transaction Submission and Validation".
- 3.25 For each Data Transaction, the Sending Party, other than the System Operators, Meter Data Providers and any Interconnector Administrator, may assign it an identifier in accordance with Agreed Procedure 4 "Data Transaction Submission and Validation" that shall be stored by the Receiving Party to assist the Sending Party in identifying the Data Transaction.
- 3.26 For each Data Transaction or group of Data Transactions in a single communication for which the Market Operator is the Receiving Party, it shall assign it a unique identifier in accordance with Agreed Procedure 4 "Data Transaction Submission and Validation" and shall store such identifier to enable it to uniquely identify the Data Transaction.
- 3.27 In the event that a Data Transaction is wrong or defective, the Sending Party shall, after becoming aware of the error or defect, re-submit that Data Transaction within any applicable timelines.
- 3.28 On request by a Sending Party, the Market Operator shall, within the timelines provided for pursuant to Agreed Procedure 4 "Data Transaction Submission and Validation", identify, or shall facilitate identification by that Sending Party of, the Accepted data for that Party or any of its Units, for any particular Trading Period.
- 3.29 Intentionally blank.
- 3.30 Intentionally blank.

SUBMISSION, VALIDATION AND REJECTION OF CENTRAL MARKET SYSTEM DATA

- 3.31 Parties and Participants shall, where applicable, submit Central Market System (CMS) Data Transactions in accordance with the Code.
- 3.32 Intentionally blank.
- 3.33 Intentionally blank.
- 3.34 Subject to paragraphs 3.58 to 3.75 (concerning Communication and System Failures), the Sending Party shall send a CMS Data Transaction using either the Type 2 Channel or Type 3 Channel, and System Operators, Meter Data Providers and Interconnector Administrators shall use Type 3 Channels.
- 3.35 A CMS Data Transaction shall be deemed to be received by the Market Operator when it enters the Market Operator's Isolated Market System via a valid, functioning Type 2 Channel or Type 3 Channel, or by such other means as permitted under paragraphs 3.58 to 3.75. and completes initial validation checks that ensure that the Market Operator's Isolated Market System can receive the data as specified in Agreed Procedure 4 "Data Transaction Submission and Validation".
- 3.36 On receipt of a CMS Data Transaction, the Market Operator shall send a Confirmation Notice to the Sending Party using the same Communication Channel used by the Sending Party. The Confirmation Notice shall contain a time stamp and sufficient information to enable the Sending Party to identify the Data Transaction shall be set out in the Confirmation Notice.

- 3.37 If the Sending Party does not receive a Confirmation Notice within the relevant timescale set out in Agreed Procedure 4 “Data Transaction Submission and Validation”, then:
1. for CMS Data Transactions in Appendix C (Commercial Offer Data or Technical Offer Data), the Sending Party may, but shall not be obliged to, contact the Market Operator by calling the Market Operator helpdesk as described subject to Agreed Procedure 7 “Emergency Communications”; or
 2. for CMS Data Transactions in Appendices E (System Operator Data and Interconnector Administrator Data) or G (Metered Data), the Sending Party must contact the Market Operator by calling the Market Operator helpdesk as described in Agreed Procedure 7 “Emergency Communications”,
- in order to establish whether or not its CMS Data Transaction has been received.
- 3.38 The Market Operator shall be under no obligation to pursue any Party that has not submitted any particular CMS Data Transaction and shall have no liability in respect of any CMS Data Transaction which it has not received under paragraph 3.35, or which contains defective or incorrect data.
- 3.39 The Market Operator shall in respect of each CMS Data Transaction received by it prior to the deadlines set out in Appendix C, E and G (as applicable), process the CMS Data Transaction to determine whether it is valid in accordance with Agreed Procedure 4 “Data Transaction Submission and Validation”. The Market Operator shall validate a Data Transaction if the conditions set out in Agreed Procedure 4 “Data Transaction Submission and Validation” are satisfied in respect of that Data Transaction and shall reject the Data Transaction if such conditions are not so satisfied.
- 3.40 Following the processing of a CMS Data Transaction under paragraph 3.39, the Market Operator shall send a Validation Notice or a Rejection Notice to the Sending Party using the same Communication Channel as that used by the Sending Party to send the Data Transaction and in accordance with Agreed Procedure 4 “Data Transaction Submission and Validation”. The Market Operator shall specify in any Rejection Notice the reasons for the Rejection.
- 3.41 The Market Operator may send both a Confirmation Notice and a Validation Notice or Rejection Notice in respect of a CMS Data Transaction in a single communication provided that it satisfies the timelines provided for pursuant to Agreed Procedure 4 “Data Transaction Submission and Validation” for issuance of each of the Confirmation Notice and the Validation Notice or Rejection Notice.
- 3.41A If a Meter Data Provider or a System Operator does not receive confirmation of the receipt of a Data Transaction within the timeline provided for pursuant to Agreed Procedure 4 “Data Transaction Submission and Validation” then it must contact the Market Operator by calling the Market Operator helpdesk as described in Agreed Procedure 7.
- 3.42 Save as expressly provided otherwise, for each Participant, Unit and Trading Period, and each relevant category of CMS Data Transaction, the Market Operator shall be obliged to use, for all purposes set out in the Code, only the most recently received CMS Data Transaction of that category that has been Validated.

- 3.42A The Market Operator shall use a CMS Data Transaction as required by paragraph 3.42 regardless of whether or not it has issued a Confirmation Notice or Validation Notice to the Sending Party in respect of that CMS Data Transaction, or whether that CMS Data Transaction was validated prior to or following Gate Closure for the relevant Trading Day.
- 3.43 Where two or more Data Transactions are received contemporaneously, the Market Operator may use the procedures provided for in Agreed Procedure 4 “Data Submission and Validation” to determine the deemed order of receipt of the Data Transactions.
- 3.44 Intentionally blank.
- 3.45 Notwithstanding paragraph 3.42, the Market Operator shall not use, for any purpose set out in the Code, any CMS Data Transaction specified in Appendix C (Commercial Offer Data or Technical Offer Data) that is received by the Market Operator after Gate Closure for the Trading Day to which such CMS Data Transaction relates.
- 3.46 Intentionally blank.
- 3.47 Intentionally blank.

CMS DATA TRANSACTION DEFAULT OFFER PROCESSES AND MARKET PROCEDURES

Updating and Use of Default Data

- 3.48 Parties that are required to submit Default Data shall review, and update as necessary, the Default Data provided as part of the registration process regularly, and at least once per quarter, to seek to ensure that the Default Data for each of the Party’s Participants reflects the average operational marginal costs and capabilities of the each of the Participant’s Units.
- 3.49 In accordance with Agreed Procedure 4 “Data Transaction Submission and Validation”, and with the exception of paragraph 5.55, if for a particular Participant, Unit and Trading Day in relation to any one of the CMS Data Transactions listed in Appendix C (Commercial Offer Data or Technical Offer Data), either:
1. no CMS Data Transaction has been received by the Market Operator by Gate Closure for that Trading Day, or, in the event of a General Communication Failure or General System Failure, such later time as permitted under Agreed Procedure 7; or
 2. none of the CMS Data Transactions received prior to Gate Closure for that Trading Day, or, in the event of a Limited Communication Failure, General Communication Failure or General System Failure, such later time as permitted under Agreed Procedure 7, meets the requirements to be Validated by the Market Operator,
- then the Market Operator shall use the relevant Default Data for all purposes set out in the Code in respect of that Participant, Unit, Trading Day and CMS Data Transaction.
- 3.50 Intentionally blank.
- 3.51 Intentionally blank.
- 3.52 Intentionally blank.

3.53 Intentionally blank.

Market Operator Queries of Submitted Validated Data

3.53A The Market Operator may at any time query Commercial Offer Data or Technical Offer Data (such data to be referred to as “Queried Data” for the purposes of this paragraph 3.53a and paragraph 3.53B) it has received from a Party if the Data Record and field-level values in that CMS Data Transaction appear pursuant to Prudent Electric Utility Practice to be materially incorrect, or the Market Operator reasonably expects that such values as submitted will cause the MSP Software to fail to solve. This discretion of the Market Operator does not in any way diminish the responsibility of each Party to submit complete accurate and up-to-date data.

3.53B Intentionally blank.

System Operator Market Data Transactions, Interconnector, Administrator Transactions and Meter Data Transactions

3.54 The Market Operator shall not estimate or substitute System Operator Market Data Transactions, Interconnector Administrator Transactions or Meter Data Transactions except as required when Administered Settlement is in effect.

3.55 If for a particular Trading Period, in relation to any one of the CMS Data Transactions listed in Appendix E (System Operator and Interconnector Administrator Market Data Transactions) or Appendix G (Meter Data Transactions) either:

1. no such Data Transaction has been received by the Market Operator before the applicable deadline; or
2. none of the Data Transactions received prior to the applicable deadline meets the requirements to be Validated by the Market Operator,

then, all calculation and processing by the Market Operator to which the relevant data relates shall be deferred until the valid data is provided to and accepted by the Market Operator, unless Administered Settlement is in effect.

3.55A When processing is deferred in accordance with paragraph 3.55, the obligations of the Market Operator in regard to any consequential Data Transactions and Publication shall also be deferred.

3.55B Notwithstanding paragraphs 3.55 and 3.55A, the Market Operator shall use prudent practice to continue any provisions of the Code that it deems appropriate to avoid further delays to the market.

3.56 In the event that a circumstance of the type set out in paragraph 3.55.1 arises due to a communications failure or any error affecting the System Operator, Interconnector Administrator, or Meter Data Provider outside of the Market Operator’s Isolated Market System, the System Operator, Interconnector Administrator or Meter Data Provider will comply with Agreed Procedure 7 “Emergency Communications” to submit the required Data Transaction to the Market Operator within one day of the specified submission deadline in the Code.

3.56A Following the occurrence of the circumstances described in paragraph 3.55, the Market Operator shall, once the necessary data has been received, take

steps the undertake all the necessary deferred processing as rapidly as reasonably possible and shall promptly inform all Parties of the changes to the Settlement Calendar that will result.

3.57 Intentionally blank.

3.57A Intentionally blank.

COMMUNICATION AND SYSTEM FAILURES

3.58 As soon as is practicable following any General Communication Failure, General System Failure, or MSP Failure, the Market Operator shall take all practicable measures to maintain and, where necessary, restore its Isolated Market System and the Communications Channels under its control.

3.58A Agreed Procedure 7 “Emergency Communications” sets out the methods of communication to be used for Data Transactions, and any permitted derogations from the required timelines for submission of Data Transactions, which shall apply during a Limited Communication Failure, a General Communication Failure or a General System Failure

Limited Communication Failure

3.59 As soon as a Party becomes, or should have become, aware of the commencement of a Limited Communication Failure, that Party shall notify the Market Operator of the Limited Communication Failure using another valid means of communication, other than the failed Communication Channel(s), as provided for pursuant to Agreed Procedure 7 “Emergency Communications”.

3.60 During the Limited Communication Failure, the affected Party shall use the methods of communication, other than the failed Communication Channel(s), as provided for pursuant to Agreed Procedure 7 “Emergency Communications”.

3.61 A Limited Communications Failure shall not affect the obligations of any Party to submit data.

3.62 No Party or Participants shall be entitled to reimbursement of costs or expenses incurred in connection with using alternative communication methods during a Limited Communication Failure.

General Communication Failure

3.63 When the Market Operator becomes, or should reasonably have become, aware of a General Communication Failure, the Market Operator shall inform Parties of the General Communication Failure using the methods of communication provided for pursuant to Agreed Procedure 7 “Emergency Communications”.

3.64 During a General Communication Failure, Parties and Participants shall use the methods of communication provided for pursuant to Agreed Procedure 7 “Emergency Communications” until the General Communication Failure ceases.

3.65 Intentionally blank.

3.66 Notwithstanding paragraph 3.58, in the event of a General Communication Failure, the Market Operator shall act prudently and reasonably to prioritise Data Transactions necessary for the calculation of System Marginal Prices, Market Schedule Quantities, Trading Charges, Trading Payments, and

Settlement in the event that some of its obligations under the Code cannot be reasonably fulfilled due to the nature of the General Communication Failure.

- 3.67 Intentionally blank.
- 3.68 No Party or Participant shall be entitled to reimbursement of costs or expenses incurred in connection with using alternative communication methods in case of a General Communication Failure.
- 3.69 Intentionally blank.

General System Failure

- 3.70 When the Market Operator becomes, or should reasonably have become, aware of a General System Failure, the Market Operator shall inform Parties of the General System Failure using the communication provided for pursuant to Agreed Procedure 7 “Emergency Communications”
- 3.70A During a General System Failure, Parties shall use the methods of communication provided for pursuant to Agreed Procedure 7 “Emergency Communications” until the General System Failure ceases.
- 3.71 During a General System Failure, all calculation by the Market Operator of Trading Charges and Trading Payments, and Settlement, relating to Trading Days for which the necessary data cannot be accessed or processed shall be deferred, unless Administered Settlement is in effect. The Market Operator may continue processing to the extent possible in respect of any Trading Periods for which all data as required by the Code is available.
- 3.72 In the event of a General System Failure, the Market Operator must restore the Market Operator’s Isolated Market System to working order according to the timelines and standards provided for pursuant to Agreed Procedure 11 “Market System Operation, Testing, Upgrading, and Support”.
- 3.72A Following the restoration of the Market Operator’s Isolated Market Systems, the Market Operator shall recommence processing and restore its operation to normal timescales as soon as reasonably possible and shall promptly inform all Parties of the changes to the Settlement Calendar that will result.
- 3.72B No Party or Participant shall be entitled to reimbursement of costs or expenses incurred in connection with using alternative communication methods in case of a General System Failure.

Reporting of General Communication Failures, General System Failures and MSP Failures

- 3.73 The Market Operator shall commission an externally audited report in accordance with the timelines provided for pursuant to Agreed Procedure 11 “Market System Operation, Testing, Upgrading, and Support” in the event of any General Communication Failure, General System Failure or MSP Failure where such failure materially affects Participants. The purpose of any such report is to investigate and identify the cause of the failure and to assess the resulting response to that failure of all Parties. The Market Operator shall provide the report to the Regulatory Authorities.
- 3.74 During any General Communication Failure, General System Failure or MSP Failure, the Market Operator will keep Parties updated of the best estimate of when the Market Operator’s Isolated Market System will be operational again following the General Communication Failure, General

System Failure, or MSP Failure, as provided for pursuant to Agreed Procedure 7 “Emergency Communications”.

- 3.75 Unless indicated otherwise by the Market Operator, a General Communication Failure, General System Failure or MSP Failure shall not affect the obligations of any Party to submit data. As soon as a Party becomes, or should have become, aware of any such failure, that Party shall use another valid means of communication other than the failed Communication Channel(s) as provided for pursuant to Agreed Procedure 7 “Emergency Communications”.

METER DATA REQUIREMENTS

- 3.76 Each Meter Data Provider shall provide such meter registration identification, estimation, substitution, aggregation, communication and storage services as are provided for in the Metering Code or Grid Code (as applicable) for the installed meters of categories of electricity generating units and electricity consuming units identified under Appendix G for each Meter Data Provider.
- 3.77 Each Meter Data Provider shall submit to the Market Operator the Data Transactions defined in Appendix G in accordance with the timelines provided for in Agreed Procedure 16 “Metered Data Provision” to the standards specified in the Metering Code or Grid Code as applicable.
- 3.77A A Party (or Applicant as applicable) who applies to register a Generator Unit requesting, or whose Generator Unit is registered with, a Unit Classification other than Autonomous must have appropriate equipment installed at the relevant Generator to permit real-time monitoring of the availability and delivery of that Generator.
- 3.77B Parties who register Generator Units must have Interval Metering installed by the Meter Data Provider responsible for installing, commissioning and maintaining such meters under Appendix G at the Generator to meter Active Power generation. Such Interval Metering shall be to a standard sufficient to allow polling of that Meter by the responsible Meter Data Provider for provision of data to the Market Operator as identified under Appendix G.
- 3.77C All Active Power Demand aggregated by a Meter Data Provider into Trading Site Supplier Unit or an Associated Supplier Unit for a Trading Site that contains a Generator Unit with Non-Firm Access must have Interval Metering installed by the Meter Data Provider responsible for installing, commissioning and maintaining such meters under Appendix G. Such Interval Metering shall be to a standard sufficient to allow polling of that Meter by the responsible Meter Data Provider for provision of data to the Market Operator as identified under Appendix G.
- 3.77D All Active Power Demand or Active Power generation aggregated by a Meter Data Provider to any other Supplier Units not listed in paragraph 3.77C may utilise standard consumption profiles to derive half-hourly metered values in place of Interval Metering.
- 3.77E During the Registration process described in Agreed Procedure 1 “Participant and Unit Registration and Deregistration”, the Meter Data Provider or the System Operator are required to inform the Market Operator if a Unit does not fulfil its metering or operational requirements for requested Unit Classification or registration.

- 3.78 If a Party does not have adequate metering installed in respect of any of its Units under paragraph 3.77B or 3.77C or appropriate equipment to permit real-time monitoring of Generator Unit availability by the System Operator under paragraph 3.77A to facilitate Settlement under the rules of the Code without further netting, aggregation or estimation rules, the Meter Data Provider will determine, subject to accuracy, practicality and cost, in consultation with the affected Party, and subject to the prior written approval of the Regulatory Authorities, the appropriate bespoke netting, aggregation, or estimation rules to allow for Settlement of that Unit under the Code.
- 3.79 Where such netting and estimation rules as provided for under paragraph 3.78 are determined by the Regulatory Authorities to be inaccurate or impractical following any information and advice provided by the Meter Data Provider, the Regulatory Authorities may require the Participant (or Applicant, as applicable) to adjust the form of registration of that Generator Unit or Trading Site until the appropriate metering equipment or equipment to permit real-time monitoring of Generator Unit availability under paragraph 3.77A is installed in accordance with such timeframes as are provided for in the Metering Code or Grid Code as applicable.
- 3.80 The Meter Data Providers shall facilitate the resolution of any relevant Data Query, Settlement Query, or Dispute raised under the Code, so that data shall comply with standards specified in the relevant Metering Code or Grid Code as applicable.
- 3.81 Parties that have registered Units must facilitate Meter Data Providers in fulfilling such obligations regarding the installation, commissioning, calibration, maintenance, testing, inspection, security, repair, reading of and access to meter equipment as are provided for in the relevant Metering Code or Grid Code as applicable.
- 3.81A Meter Data Providers are required to submit to the Market Operator, where appropriate under their Licences, the Data Transactions as described in Agreed Procedure 1 “Participant and Unit Registration and Deregistration”.
- 3.81B Intentionally blank.

DATA PUBLICATION

- 3.82 Where the Market Operator is required to publish information under the Code, the Market Operator shall publish the information in accordance with paragraphs 1.9.15 and 1.9.17 and as provided for pursuant to Agreed Procedure 6 “Data Publication”. Agreed Procedure 6 “Data Publication” sets out details of the procedures for publication of data by the Market Operator under the Code.

Items and Data Record Publication

- 3.83 The Market Operator shall publish any Data Records required to be published pursuant to Appendix K in accordance with the timelines set out in Appendix K.
- 3.84 The Market Operator shall not publish any Confidential Information to any Party other than that to which the information is confidential, except as otherwise provided for in the Code.
- 3.85 Intentionally blank.
- 3.86 Intentionally blank.

3.87 Intentionally blank.

Forecast Publication Rationale

3.88 The Market Operator shall publish Load Forecasts and Wind Power Unit Forecasts and the assumptions behind the production of those forecasts using the data most recently submitted by the System Operators to the Market Operator at the time of publication.

3.89 The Market Operator shall publish Forecasts of Loss of Load Probability in accordance with the timelines provided for pursuant to Agreed Procedure 6 “Data Publication” using the data submitted to it by the System Operator.

Updating Publications

3.90 Notwithstanding Appendix K or any provision of this Code, the Market Operator shall ensure that the data it publishes shall be the data that will be used in calculations (subject to any contrary provisions within the Code) within the timelines provided for pursuant to Agreed Procedure 6 “Data Publication” where the data is still relevant.

NUMERICAL ROUNDING OF CALCULATIONS AND PUBLICATIONS

3.91 The Market Operator shall use a consistent numerical rounding of all published quantities in accordance with the following rules:

1. all energy variables will be expressed in MWh to three decimal places;
2. all power variables will be expressed in MW to three decimal places;
3. all Currency variables (excluding exchange rates) will be expressed in euro or in sterling as appropriate, and to two decimal places;
4. all parameters, ratios, factors, discounts, premiums, currency exchange rates, rates, and proportions used in calculations shall be published to the same number of decimal places as that used in calculations; and
5. for the purpose of calculations, the following time variables will be used: Trading Period, Trading Day, Settlement Day, Billing Period, Week, Capacity Period, month, or year as appropriate.
6. within a Trading Period, time shall be expressed to the nearest second; and
7. for clarity, all time periods start on the hour or half hour.

3.92 Without prejudice to paragraph 3.91, the Market Operator shall not round any variable, quantity, parameter, volume, ratio, factor, discount, premium, rate, or proportion during calculation other than that automatically arising from the limitations of its IT systems.

3.93 The level of computational precision and the method of computational rounding that shall be employed by the Market Operator’s IT systems are set out in more detail in Agreed Procedure 5, “Data Storage and IT Security”.

Obligation on the Market Operator to Retain Market Data

- 3.94 The Market Operator shall, in relation to each Trading Day, store, for the period of seven years commencing on that Trading Day, at least one copy of all Data Transactions and Accepted data in a safe and secure environment and in a form which shall enable re-calculation or reproduction of any Settlement Statement by the Isolated Market System.

Obligation on the Market Operator to Maintain Market Re-Run Facilities

- 3.95 The Market Operator shall, in relation to each Settlement Day, maintain, for the period of two years commencing on that Settlement Day, the ability to perform a Settlement Rerun for that Settlement Day.
- 3.96 The Market Operator shall, in relation to each Settlement, maintain, for the period of seven years (or such longer period as shall be necessary to comply with the requirements of the relevant VAT Authority) commencing on the date of that Settlement, the ability to manually perform any Resettlement required as a result of a decision of a Dispute Resolution Board or of any other Competent Authority, using SMP prices as determined by the Dispute Resolution Board or the relevant Competent Authority.

4. PRICING

- 4.1 Section 4 sets out the market rules on pricing relating to Generator Units and Supplier Units. Specific rules relating to pricing for Special Units which apply in addition to, or where appropriate, in place of the rules set out in this Section 4 are set out in Section 5: Categorisation of Units and Rules for Special Units.
- 4.2 Within this Code, payments or charges may be either positive or negative in accordance with their calculated value except where otherwise stated.

OFFER STRUCTURES

Commercial and Technical Offer Data

- 4.3 A Participant may submit Commercial Offer Data and Technical Offer Data for each Trading Day for any relevant Generator Unit registered to that Participant prior to Gate Closure for the Trading Day to which the data relates. Where Commercial Offer Data or Technical Offer Data are not submitted or, where submitted are not Accepted, then Default Data shall apply for the relevant Trading Day in accordance with paragraph 3.49.
- 4.4 Each set of Commercial Offer Data and Technical Offer Data other than the Forecast Availability Profile, the Forecast Minimum Stable Generation Profile and the Forecast Minimum Output Profile shall apply in respect of any Generator Unit as set out in Appendix N except as set out in Section 5.
- 4.4A Appendix N sets out detailed provisions for data inputs for each of the MSP Software Run Types.

Commercial Offer Data

- 4.5 Appendix C: Offer Data Transactions lists required Data Records which must be included in the Commercial Offer Data.
- 4.5A Where any Participant submits any value for a monetary sum as part of the Commercial Offer Data for a Generator Unit, it shall express such sum in the Currency that is relevant to the Currency Zone in which the Generator Unit is registered, provided that where such value is in pounds sterling, the Market Operator shall, for the purposes of all calculations within Sections 4 or 5 within this Code, convert the value to Euro in accordance with paragraph 6.6A.
- 4.6 All data items submitted as part of Commercial Offer Data are deemed to apply to levels of Output which are net of Unit Load.
- 4.7 Commercial Offer Data in respect of a Generator Unit u must include a minimum of one and a maximum of ten Price Quantity Pairs each comprising a Price (P_{uhi}) and a Quantity (Q_{uhi}), where i is the index of that Price Quantity Pair.
- 4.8 Each Price (P_{uhi}) can be either positive or negative but cannot exceed the Market Price Cap (PCAP) or be lower than the Market Price Floor (PFLOOR).
- 4.8A The Regulatory Authorities shall determine the Market Price Cap (PCAP) and the Market Price Floor (PFLOOR) from time to time. The Market Operator shall publish the approved values on receipt of the Regulatory Authorities' determination and, in any event, no later than four months

before the start of the Year or within 5 Working Days of receipt whichever is the later.

- 4.9 Intentionally blank.
- 4.10 The Price Quantity Pairs for Generator Unit u in Trading Period h shall be ranked in order of increasing Price Quantity Pair index i , and these Prices and Quantities shall each be strictly monotonically increasing and there may not be more than one Price (P_{uhi}) for the same Quantity (Q_{uhi}). These relationships are expressed algebraically as follows:
1. $P_{u(i+1)} > P_{uhi}$ for $i = \{1,2,\dots,9\}$
 2. $Q_{u(i+1)} > Q_{uhi}$ for $i = \{1,2,\dots,9\}$
- 4.11 Should any Accepted Quantity (Q_{uhi}) exceed the Actual Availability (AA_{uh}) of the Generator Unit in any Trading Period, the MSP Software will exclude, for that Trading Period, those Price Quantity Pairs which apply entirely to Quantities (Q_{uhi}) in excess of the Actual Availability (AA_{uh}). After any such exclusions, should the greatest remaining Quantity (Q_{uhi}) be less than the Actual Availability (AA_{uh}), then, for the purposes of the MSP Software, the Actual Availability (AA_{uh}) will be used in place of the greatest remaining Quantity (Q_{uhi}).
- 4.12 Should any Quantity (Q_{uhi}) be less than the Minimum Output ($MINOUT_{uh}$) in any Trading Period, the MSP Software will exclude the Price Quantity Pairs which apply entirely to Quantities less than the Minimum Output ($MINOUT_{uh}$).
- 4.13 The Price that shall apply at each level of Output for the calculation of Schedule Production Cost or Dispatch Production Cost, shall be determined as follows:
1. for levels of Output less than or equal to Quantity Q_{uh1} , Price P_{uh1} applies; and
 2. for levels of Output greater than Quantity $Q_{u(i-1)}$ where $i > 1$ and less than or equal to Quantity Q_{uhi} , Price (P_{uhi}) applies.
- 4.14 Intentionally blank.
- 4.15 Commercial Offer Data must include one No Load Cost which is applicable to all Trading Periods in the Trading Day. The Accepted No Load Cost shall be treated as that element of operating cost, expressed as an hourly cost, that is invariant with the level of Output and incurred at all times when the level of Output is greater than zero.
- 4.15A Commercial Offer Data must include a minimum of one and a maximum of three Start Up Costs which are applicable to each Trading Period in the Trading Day. .
- 4.15B Each Cold Start Up Cost shall be greater than or equal to the relevant Warm Start Up Cost, and each Warm Start Up Cost shall be greater than or equal to the relevant Hot Start Up Cost.
- 4.15C Technical Offer Data must include a Hot Cooling Boundary and a Warm Cooling Boundary, each of which are applicable to each Trading Period in the Trading Day and such that the Warm Cooling Boundary shall be greater than or equal to the Hot Cooling Boundary.

- 4.15D In the event that Commercial Offer Data comprises only a single Start Up Cost, then this value will be used as the Hot Start Up Cost, the Warm Start Up Cost and the Cold Start Up Cost.
- 4.15E In the event that Commercial Offer Data comprises only a Cold Start Up Cost and a Hot Start Up Cost, then the value of Cold Start Up Cost will be also used as the Warm Start Up Cost.
- 4.15F In the event that Commercial Offer Data comprises only a Cold Start Up Cost and a Warm Start Up Cost, then the value of Warm Start Up Cost will also be used as the Hot Start Up Cost.
- 4.15G In the event that Commercial Offer Data comprises only a Warm Start Up Cost and a Hot Start Up Cost, then the value of Warm Start Up Cost will also be used as the Cold Start Up Cost.

Technical Offer Data

- 4.16 Appendix C: Offer Data Transactions lists the required Data Records which must be included in the Technical Offer Data.
- 4.17 Participants shall use reasonable endeavours to ensure that all data items submitted as part of Technical Offer Data are accurate and reflect the real capabilities of the Generator Unit at the point where the Unit is Connected, net of Unit Load and with due regard for the impact of forecast ambient conditions on the Generator Unit.
- 4.17A Participants shall use reasonable endeavours to ensure that Technical Offer Data (including Default Data) shall be consistent with data which is submitted under the applicable Grid Code in respect of each Unit, provided that Technical Offer Data submitted under this Code must be net of Unit Load and shall first, where appropriate, have been scaled by the appropriate Distribution Loss Adjustment Factor.
- 4.18 The Forecast Availability Profile must contain the Participant's forecast of average level of Availability, in MW, for the Generator Unit for each Trading Period in the Optimisation Time Horizon. The forecast Availability values can be positive (including zero), but cannot be negative.
- 4.19 The Forecast Minimum Output Profile must contain the Participant's forecast of the average level of Minimum Output, in MW, for the Generator Unit for each Trading Period in the Optimisation Time Horizon. The forecast Minimum Output values must be zero except as otherwise specified in Section 5.
- 4.20 The Forecast Minimum Stable Generation Profile must contain the Participant's forecast of the average level of Minimum Stable Generation, in MW, for the Generator Unit for each Trading Period in the Optimisation Time Horizon. The forecast Minimum Stable Generation values can be positive (including zero) but cannot be negative.
- 4.21 Intentionally blank.

PROVISION OF FORECAST DATA BY THE SYSTEM OPERATORS

- 4.21AA Each System Operator shall submit to the Market Operator the following forecast values pertaining to its Jurisdiction in accordance with Appendix E:
 - 1. Annual Load Forecast;

2. Monthly Load Forecast;
3. Four Day Load Forecast; and
4. Wind Power Unit Forecast.

4.21AB The Market Operator shall calculate values of Forecast Demand (FD_h) for each Trading Period h within the relevant Year as the sum of the submitted values of the Annual Load Forecast for each Jurisdiction within 5 working days of receipt of the Annual Load Forecast Data from every System Operator.

Net Output Function

4.21A The System Operators, Meter Data Providers and Participants must provide all values expressed in MW, MW/min or MWh that are used in the MSP Software or in Settlement or referred to in Sections 4, 5 or 6 of the Code net of Unit Load.

4.22 The Net Output Function is a linear transformation used by the System Operators to convert values relating to gross Unit Output to values that are net of Unit Load.

4.23 The Net Output Function and its application are set out below. If X_{Gu} is a quantity gross of Unit Load at the relevant time, then X_{Nu} is the quantity net of Unit Load, pertaining to a Generator Unit u at that time, calculated as follows:

$$X_{Nu} = ULS_u \times X_{Gu} - FUL_u$$

Where

1. FUL_u is the Fixed Unit Load for Generator Unit u for the relevant time
2. ULS_u is the Unit Load Scalar for Generator Unit u for the relevant time

4.24 With the exception of Pumped Storage Units, Interconnector Units, Interconnector Residual Capacity Units, Netting Generator Units and Interconnector Error Units, the results of applying the Net Output Function shall be positive (including zero) and shall be set to zero if negative.

4.25 The values of Fixed Unit Load (FUL_u) and Unit Load Scalar (ULS_u) shall be recorded as part of Unit Registration, such that FUL_u ≥ 0 and 0 ≤ ULS_u ≤ 1.

4.26 The relevant System Operator will convert the following values using the Net Output Function to represent values net of Unit Load:

1. Outturn Availability;
2. Outturn Minimum Output;
3. Outturn Minimum Stable Generation; and
4. Dispatch Instructions..

TRADING BOUNDARY AND TREATMENT OF LOSSES

- 4.27 Intentionally blank.
- 4.28 In submitting data relating to any Generator or Supplier Unit that is Distribution Connected, the System Operators, Meter Data Providers and Participants shall provide that all values expressed in MW, MW/min or MWh and that are used in the MSP Software or in Settlement or referred to in Sections 4, 5 or 6 of the Code shall first have been scaled by the appropriate Distribution Loss Adjustment Factor.
- 4.29 Intentionally blank.
- 4.30 Intentionally blank.
- 4.31 Intentionally blank.
- 4.31A Intentionally blank.
- 4.31B Intentionally blank.
- 4.31C Intentionally blank.
- 4.31D Intentionally blank.
- 4.31E Intentionally blank.
- 4.31F Intentionally blank.
- 4.31G At least four months before the start of each Year, each System Operator shall make a report to the Regulatory Authorities proposing a complete set of Transmission Loss Adjustment Factors for each Generator Unit (other than Demand Side Units) that is registered within its Jurisdiction, for each Trading Period in the Year. The System Operator's report shall set out justification for the specific values proposed. Such a report will, if so requested by the Regulatory Authorities within a reasonable time, include alternative values from those proposed.
- 4.31G1 At least two months before the start of each Year or within 5 Working Days of approval by the Regulatory Authorities whichever is the later, each System Operator shall provide to the Market Operator the System Parameters Data Transaction which shall comprise a complete set of Transmission Loss Adjustment Factors that have been approved by the Regulatory Authorities for each Generator Unit (other than Demand Side Units) that is registered within its Currency Zone, for each Trading Period in the Year.
- 4.31H The Market Operator shall publish the approved value(s) within two months before the start of the Year or within 5 Working Days of receipt of the System Parameters Data Transaction, whichever is the later
- 4.32 The Transmission Loss Adjustment Factor (TLAF_{vh}) shall be equal to 1 for each Supplier Unit v.
- 4.32A Within this Code, the term 'Loss-Adjusted' applied to any variable, or the inclusion of letters 'LF' at the end of any variable term denote that a value is to be calculated at the Trading Boundary, through application of the relevant Transmission Loss Adjustment Factor as set out in Section 4, Section 5 and Section 6 of this Code.
- 4.32B Except for Loss-Adjusted Capacity Payments Eligible Availability (CPEALF_{uh}) which are calculated in accordance with paragraph 4.82, then any variable which relates to a Generator Unit u in a Trading Period h, where XXX_{uh} is the variable before application of Transmission Losses, and

XXXLFuh is the variable after application of Transmission Losses, is calculated as follows::

$$\text{XXXLFuh} = \text{XXXuh} \times \text{TLAFuh}$$

Where

1. TLAFuh is the Transmission Loss Adjustment Factor for Generator Unit u in Trading Period h

- 4.32C Except for Error Supplier Units, for which the Loss-Adjusted Net Demand (NDLFvh) shall be calculated in accordance with paragraph 4.69 , then any variable which relates to a Supplier Unit v in a Trading Period h, where XXXvh is the variable before application of Transmission Losses, and XXXLFvh is the variable after application of Transmission Losses, is calculated as follows:

$$\text{XXXLFvh} = \text{XXXvh} \times \text{TLAFvh}$$

Where

1. TLAFvh is the Transmission Loss Adjustment Factor for Supplier Unit v in Trading Period h

AVAILABILITY, MINIMUM STABLE GENERATION AND MINIMUM OUTPUT

- 4.33 The System Operators shall each submit daily to the Market Operator the Outturn Minimum Stable Generation, Outturn Availability and Outturn Minimum Output in respect of each Generator Unit registered within its Currency Zone which is Dispatchable, for the previous Trading Day, based on Outturn Data.
- 4.33A The Market Operator shall calculate time-weighted average values of Minimum Stable Generation (MINGENuh), Availability Profile (APuh) and Minimum Output (MINOUTuh) in respect of each Generator Unit u in each Trading Period h as set out in Appendix N.
- 4.33B For the purposes of the MSP Software and for the purposes of Ex-Post Indicative Settlement, certain interim values of Availability Profile (APuh), Actual Availability (AAuh), Minimum Stable Generation (MINGENuh), Minimum Output (MINOUTuh), Metered Generation (MGuh), Metered Demand (MDvh) and other elements of Commercial Offer Data and Technical Offer Data are required. The source of these values is set out in Appendix N.

Actual Availability

- 4.34 The Market Operator will calculate the Actual Availability (AAuh) for each Trading Period, as set out below.

Actual Availability for Generator Units with no Non-Firm Access

- 4.35 For each Generator Unit u with no Non-Firm Access that is not a Netting Generator Unit, the Actual Availability (AAuh) for each Trading Period is calculated as follows:

$$\text{AAuh} = \text{APuh}$$

Where

1. AP_{uh} is the Availability Profile for Generator Unit u in Trading Period h

Actual Availability for Generator Units with Non-Firm Access

4.36 For each Generator Unit u with Non-Firm Access, the Actual Availability (AA_{uh}) for each Trading Period is calculated as follows:

Step 1: The Firm Access Quantity (FAQ_{uh}) for each Generator Unit u in Trading Site s with Non-Firm Access in Trading Period h is calculated as follows:

if $\sum_{u \text{ in } s} AP_{uh} = 0$ *then*

$$FAQ_{uh} = 0$$

else

$$FAQ_{uh} = \left(FAQ_{Sst} + \frac{MD_{vh}}{TPD} \right) \times \frac{AP_{uh}}{\sum_{u \text{ in } s} AP_{uh}}$$

Where

1. FAQ_{uh} is the Firm Access Quantity of Generator Unit u in Trading Period h
2. FAQ_{Sst} is the Firm Access Quantity of Trading Site s in each Trading Period h within Trading Day t
3. MD_{vh} in Trading Period h is the Metered Demand for Supplier Unit v where v is the Trading Site Supplier Unit for the Trading Site s, or otherwise zero
4. AP_{uh} is the Availability Profile for Generator Unit u in Trading Period h
5. summation $\sum_{u \text{ in } s}$ is over all Generator Units u in Trading Site s, except the Netting Generator Unit
6. TPD is the Trading Period Duration.

Step 2: The Access Quantity (AQ_{uh}) is calculated as follows:

$$AQ_{uh} = \text{Min}\{AP_{uh}, \text{Max}\{FAQ_{uh}, DQ_{uh}\}\}$$

Step 3: The Site Access Quantity (SAQ_{sh}) for each Trading Site s which has Generator Units with Non-Firm Access in Trading Period h, is calculated as follows:

$$SAQsh = \text{Min} \left\{ \sum_{u \text{ in } s} APuh, \text{Max} \left\{ FAQSst + \frac{MDvh}{TPD}, \sum_{u \text{ in } s} DQuh \right\} \right\}$$

Step 4: The Actual Availability (AAuh) for each Generator Unit u with Non-Firm Access in Trading Period h is calculated as follows:

if $\sum_{u \text{ in } s} (AQuh - DQuh) = 0$ then

$$AAuh = AQuh$$

else

$$AAuh = AQuh - \left(\frac{(AQuh - DQuh)}{\sum_{u \text{ in } s} (AQuh - DQuh)} \right) \times \left(\sum_{u \text{ in } s} AQuh - SAQsh \right)$$

4.37 Intentionally blank.

ELIGIBLE AVAILABILITY FOR CAPACITY PAYMENTS

4.38 The values of Eligible Availability (EAuh) for use within the determination of Capacity Payments will be taken from the values of Availability Profile (APuh), which are calculated by the Market Operator from availability data submitted by the relevant System Operator, and which shall relate to the Availability of the Generator Unit without consideration of access limitations. The Eligible Availability (EAuh) for each Generator Unit u in Trading Period h is calculated as follows:

$$EAuh = APuh$$

Where

1. APuh is the Availability Profile for Generator Unit u in Trading Period h.

4.38A Intentionally blank.

DISPATCH QUANTITY

4.38B The System Operators shall each submit to the Market Operator the Dispatch Instructions and may submit an associated Ramp Rate for each Dispatch Instruction in respect of each Generator Unit registered within its Currency Zone which is Dispatchable. The System Operators shall submit this information each day to the Market Operator for the previous Trading Day, based on Outturn Data, and the values shall be net of Unit Load and shall, where appropriate, first have been scaled by the appropriate Distribution Loss Adjustment Factor.

4.39 The Market Operator will determine the Dispatch Quantity (DQuh) for each Generator Unit u in Trading Period h from the Dispatch Instructions submitted by the relevant System Operator in accordance with Appendix P of the Code.

- 4.40 Intentionally blank.
- 4.41 Intentionally blank..
- 4.42 Intentionally blank.

Maximisation Instructions

- 4.43 Under the terms of the Grid Codes, a System Operator may issue a Maximisation Instruction in respect of a Generator Unit u. In such circumstances, in a Trading Period, a Generator Unit will be treated as subject to Maximisation as set out within Appendix P. The values for Outturn Availability which are submitted to the Market Operator by the System Operator or the values of Availability Profile (APuh) which are calculated by the Market Operator for that Generator Unit u for those Trading Periods h will not be revised upwards to reflect the Short-Term Maximisation Capability (STMCut) for Generator Unit u within Trading Day t.
- 4.44 In any Trading Period when a Generator Unit is treated as being subject to Maximisation in accordance with Appendix P, the Market Operator shall calculate the revised Dispatch Quantity (DQ'uh) as follows:

Under a Maximisation Instruction,

$$DQ'uh = \text{Max} \left\{ DQuh, \text{Min} \left\{ STMCut, \frac{MGuh}{TPD} \right\} \right\}$$

Where

1. DQ'uh is the revised Dispatch Quantity in respect of Generator Unit u which is treated as being subject to Maximisation in Trading Period h
2. DQuh is the initial Dispatch Quantity for Generator Unit u in Trading Period h, as calculated by the Market Operator in accordance with Appendix P
3. TPD is the Trading Period Duration
4. MGuh is the Metered Generation for Generator Unit u in Trading Period h
5. STMCut is the Short-Term Maximisation Capability for Generator Unit u for the relevant Trading Period h within Trading Day t

- 4.45 For the avoidance of doubt, the revised Dispatch Quantity (DQ'uh) may at such times exceed both the Registered Capacity (RCu) and the Availability Profile (APuh) for the relevant Generator Unit.
- 4.46 In the event that the revised Dispatch Quantity (DQ'uh) calculated pursuant to paragraph 4.44 exceeds the greatest Accepted Quantity (Quhi), then the revised Dispatch Quantity (DQ'uh) will be used in place of the greatest Accepted Quantity (Quhi) in all other calculations under this Code.

PRICING ALGORITHM

The MSP Software

- 4.46A Within this Code, where a run of the MSP Software is associated with a Trading Day, it means the Trading Day that is entirely within the relevant Optimisation Time Horizon.
- 4.47 The Market Operator shall perform the Ex-Ante Indicative MSP Software Run for each Trading Day and shall create the Ex-Ante Indicative Market Schedule and ex-ante indicative values for System Marginal Price for each Trading Period in that Trading Day within one hour of Gate Closure for that Trading Day.
- 4.47A The Market Operator shall perform the Ex-Post Indicative MSP Software Run for each Trading Day and shall create the Ex-Post Indicative Market Schedule and the indicative ex-post values for System Marginal Price for each Trading Period in that Trading Day by 16:00 on the day after the start of the relevant Trading Day.
- 4.47AA The Market Operator shall perform the Ex-Post Initial MSP Software Run for each Trading Day and shall create the Ex-Post Initial Market Schedule and the values for System Marginal Price for each Trading Period in that Trading Day by 16:00 four days after the start of the relevant Trading Day.
- 4.47B The Market Operator shall perform Ex-Post Initial MSP Software Runs as required for Settlement purposes in accordance with the Code.
- 4.48 The Market Operator shall ensure that the MSP Software operates in accordance with the Code including on the basis of the principles set out below and as further specified within Appendix N.
- 4.49 The objective of each run of the MSP Software when producing a Unit Commitment Schedule or Market Schedule Quantities is to minimise the aggregate sum of Schedule Production Cost over the Optimisation Time Horizon, subject to the following constraints:
1. to schedule Output by Price Maker Generator Units to match, in aggregate, Schedule Demand (as defined within Appendix N for the relevant run of the MSP Software), in each Trading Period within the Optimisation Time Horizon;
 2. to schedule each Price Maker Generator Unit at a level of Output between its Minimum Output and its Availability; and
 3. to schedule each Price Maker Generator Unit within the additional Technical Capabilities given within its Minimum Stable Generation and Technical Offer Data, including without limitation Ramp Rates, Minimum On Times and Minimum Off Times, with consideration given to the Warmth State.
- 4.49A The overall objective of that part of the MSP Software which calculates Uplift is to set the System Marginal Price to reflect the marginal cost of producing or consuming electricity during the Optimisation Time Horizon, subject to balancing the following supplementary objectives and as set out in further detail within Appendix N:
1. energy prices should be reflective of underlying market dynamics; consequently the recovery of Start Up Costs and No

Load Costs through SMP should not deviate significantly from the Shadow Prices (the Uplift Profile Objective); and

2. the revenue paid through Uplift revenues should be minimised (the Uplift Cost Objective).
- 4.49B The calculation of Uplift is subject to the constraint that the Schedule Production Cost for each Price Maker Generator Unit during a Contiguous Operation Period should be recovered through SMP within that period of operation, subject to detailed specification within Appendix N.
- 4.49C The calculation of Uplift requires three input parameters. The Regulatory Authorities will set the three input parameters four months in advance of each Year:
1. The Uplift Alpha value α , which governs the importance of the Uplift Cost Objective, such that $0 \leq \alpha \leq 1$;
 2. The Uplift Beta value β , which governs the importance of the Uplift Profile Objective, such that $0 \leq \beta \leq 1$ and such that $\alpha + \beta = 1$; and
 3. The Uplift Delta value δ , to constrain the overall impact on revenue in each Trading Day t arising from the Uplift calculation, such that $\delta \geq 0$.
- 4.49D The Market Operator shall publish the approved values of Uplift Alpha, Uplift Beta and Uplift Delta on receipt of the Regulatory Authorities' determination and, in any event, at least four months before the start of the Year or within 5 Working Days of receipt of the determination whichever is the later.
- 4.50 Except for the treatment of Generator Units with Non-Firm Access, the MSP Software will not take explicit account of the topology of the Transmission System or any requirements for reserve.
- 4.50A An Insufficient Capacity Event occurs for a Trading Period within a run of the MSP Software for a Trading Period where the MSP Software identifies that the Schedule Demand in that Trading Period cannot be met in full by Price Maker Generator Units. In such circumstances, the balance of Schedule Demand shall be met by a notional generator unit which is not further used in Settlement, in such a way so that Market Schedule Quantities can be determined for other Generator Units.
- 4.50A1 An Excessive Generation Event occurs for a Trading Period where Schedule Demand in that Trading Period is less than or equal to zero. In such circumstances, Market Schedule Quantities for each Price Maker Generator Unit are equal to zero.
- 4.50B The MSP Software produces a Valid MSP Solution when each of the following conditions is met:
1. the run of the MSP Software produces the required set of Market Schedule Quantities and System Marginal Prices in accordance with this Code, including for Trading Periods in which an Insufficient Capacity Event has occurred. In that event Market

Schedule Quantities for Price Maker Generator Units and System Marginal Prices shall be calculated in accordance with paragraph 4.53

2. no Price Maker Generator Unit is scheduled inconsistently with its Technical Capabilities, with the exception that:
 - a. where there is no Preceding MSP Run to determine the starting conditions for a Generator Unit then the Market Operator must employ reasonable endeavours to populate surrogate data that best reflects its understanding of the starting conditions of the Generator Unit at that time;
 - b. if Technical Capabilities applying to a Generator Unit within a run of the MSP Software are incompatible with the initial operating level of that Generator Unit, then the MSP Software may disregard limits on Ramp Rates in the first period of the Trading Day for that Generator Unit;
 - c. if Technical Capabilities applying to a Generator Unit within a run of the MSP Software are internally inconsistent so as to allow no possible solution for that Generator Unit, then the MSP Software may disregard one or more Technical Capability limits as required to allow a solution to be found for that Generator Unit..

Tie-Break Situations

- 4.51 In the event of a Tie-Break, the MSP Software will resolve the order in which Generator Units are scheduled using a systematic process of random selection which may include making small alterations to the submitted Prices of the Price Maker Generator Units concerned. Such amended prices will be used throughout the calculation of SMP within the MSP Software for the purposes of the Tie-Break concerned but not any further within Settlement, as set out within Appendix N. The systematic process of random selection shall be capable of being repeated, should that be necessary, to effect the same selection.

Calculation of SMP

- 4.52 The Market Operator shall calculate the System Marginal Price (SMP_h) using the MSP Software for each Trading Period h using the methodology specified in Appendix N.
- 4.52A Except in Trading Periods where the Market Price Cap (PCAP) applies, the System Marginal Price (SMP_h) shall allow the recovery of the Start Up Costs and No Load Costs of Price Maker Generator Units (except Interconnector Units and Pumped Storage Units) that are scheduled to generate within that run of the MSP Software. Each Price Maker Generator Unit (except Interconnector Units and Pumped Storage Units) shall recover the Start Up Costs and No Load Costs that it incurred in each Contiguous Operation Period. However, System Marginal Price (SMP_h) will not necessarily, allow for the recovery of all of the running costs incurred by scheduled Generator Units in all circumstances.
- 4.53 For any Trading Period when an Insufficient Capacity Event has occurred within a run of the MSP Software in accordance with paragraph 4.50A above, then the results of that run of the MSP Software for that Trading Period shall be determined as follows:

1. the System Marginal Price (SMP_h) for that Trading Period h shall be set equal to the Market Price Cap (PCAP); and
 2. the Market Schedule Quantities for each Price Maker Generator Unit shall be as calculated within that run of the MSP Software.
- 4.53A For any Trading Period h when an Excessive Generation Event has occurred in accordance with Paragraph 4.50A1, the System Marginal Price (SMP_h) in the relevant Trading Periods h shall be equal to the Market Price Floor (PFLOOR).
- 4.54 In the event that the System Marginal Price (SMP_h) is calculated to exceed the Market Price Cap (PCAP), the System Marginal Price (SMP_h) in the Trading Period (SMP_h) will be set to equal the Market Price Cap (PCAP).
- 4.55 In the event that the System Marginal Price (SMP_h) is calculated to fall below the Market Price Floor (PFLOOR), the System Marginal Price (SMP_h) in the Trading Period (SMP_h) will be set to equal the Market Price Floor (PFLOOR).

DERIVATION OF QUANTITIES USED IN SETTLEMENT

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- 4.57A Intentionally blank..

Trading Sites with a Trading Site Supplier Unit

- 4.58 Intentionally blank.
- 4.59 The Eligible Netting Quantity (ENQ_{sh}) for each Trading Site s with a Trading Site Supplier Unit v in Trading Period h is calculated as follows:

$$ENQ_{sh} = \text{Min} \left\{ \left(\sum_{u \in \text{ins}} \text{Min} \left\{ DQ_{uh}, \frac{MG_{uh}}{TPD} \right\} \right), \frac{MD_{vh}}{TPD} \right\}$$

Where

1. DQ_{uh} is the Dispatch Quantity in respect of Generator Unit u in Trading Period h
2. MG_{uh} is the Metered Generation for Generator Unit u in Trading Period h
3. MD_{vh} is the Metered Demand of Trading Site Supplier Unit v in Trading Period h
4. TPD is the Trading Period Duration
5. the summation $\sum_{u \in \text{ins}}$ is over all Generator Units u in Trading Site s excluding the Netting Generator Unit.

- 4.59A For a Trading Site Supplier Unit v that is within a Trading Site s , the Net Demand in Trading Period h (ND_{vh}) is calculated as follows:

$$ND_{vh} = MD_{vh} - (ENQ_{sh} \times TPD)$$

Where

1. ENQ_{sh} is the Eligible Netting Quantity for each Trading Site s in Trading Period h
2. MD_{vh} is the Metered Demand for Trading Site Supplier Unit v in Trading Period h
3. TPD is Trading Period Duration.

Trading Sites with an Associated Supplier Unit

- 4.59B The Eligible Netting Quantity (ENQ_{sh}) for each Trading Site s with an Associated Supplier Unit v in Trading Period h is calculated as follows:

$$ENQ_{sh} = \text{Min} \left\{ \left(\sum_{u \in \text{uins}} \text{Min} \left\{ DQ_{uh}, \frac{MG_{uh}}{TPD} \right\} \right), 0 \right\}$$

Where

1. DQ_{uh} is the Dispatch Quantity at Generator Unit u in Trading Period h
2. MG_{uh} is the Metered Generation at Generator Unit u in Trading Period h
3. TPD is the Trading Period Duration
4. the summation $\sum_{u \in \text{uins}}$ is over all Generator Units u in Trading Site s excluding the Netting Generator Unit.

- 4.59C For each Supplier Unit v which is an Associated Supplier Unit to one or more Trading Sites s , the Net Demand (ND_{vh}) in Trading Period h is calculated as follows:

$$ND_{vh} = MD_{vh} - \left(\sum_{s \text{ with } v} (ENQ_{sh} \times TPD) \right)$$

Where

1. ENQ_{sh} is the Eligible Netting Quantity for each Trading Site s in Trading Period h
2. MD_{vh} is the Metered Demand at Supplier Unit v in Trading Period h
3. TPD is Trading Period Duration
4. the summation $\sum_{s \text{ with } v}$ is over all Trading Sites for which the Supplier Unit v is an Associated Supplier Unit

Netting Generator Unit calculations

- 4.60 For each Netting Generator Unit u' at a Trading Site s (either with a Trading Site Supplier Unit or an Associated Supplier Unit), the Metered Generation ($MGu'h$), Dispatch Quantity ($DQu'h$) and Market Schedule Quantity ($MSQu'h$) in Trading Period h are calculated as follows:

$$MGu'h = -ENQsh \times TPD$$

$$MSQu'h = -ENQsh$$

$$DQu'h = -ENQsh$$

Where

1. $ENQsh$ is the Eligible Netting Quantity for Trading Site s in Trading Period h
2. TPD is the Trading Period Duration

- 4.61 For each Netting Generator Unit u' at a Trading Site s (either with a Trading Site Supplier Unit or an Associated Supplier Unit), the Eligible Availability ($E Au'h$) in Trading Period h is calculated as follows:

$$EAu'h = -ENQsh + \sum_{u \in s} \left(\text{Min} \left\{ \left(\text{Min} \left\{ DQuh, \frac{MGuh}{TPD} \right\} - MINOUTuh \right), 0 \right\} \right)$$

Where

1. $ENQsh$ is the Eligible Netting Quantity for Trading Site s in Trading Period h
2. $DQuh$ is the Dispatch Quantity at Generator Unit u in Trading Period h
3. $MGuh$ is the Metered Generation at Generator Unit u in Trading Period h
4. TPD is the Trading Period Duration
5. $MINOUTuh$ is the Minimum Output for Generator Unit u in Trading Period h
6. the summation $\sum_{u \in s}$ is over all Generator Units u in Trading Site s excluding the Netting Generator Unit.

- 4.61A For each Netting Generator Unit u' , the Transmission Loss Adjustment Factor ($TLAFu'h$) is calculated as follows:

if $\sum_{u \text{ in } s} RCu \neq 0$ then

$$TLAFu'h = \frac{\left(\sum_{u \text{ in } s} TLA Fuh \times RCu \right)}{\sum_{u \text{ in } s} RCu}$$

else $TLAFu'h = \text{Max}\{TLA Fuh\} \forall u \text{ in } s$

Where

1. TLA Fuh is the Transmission Loss Adjustment Factor for Generator Unit u in Trading Period h
2. RCu is the Registered Capacity of Generator Unit u
3. the summation $\sum_{u \text{ in } s}$ is over all Generator Units u (not including the Netting Generator Unit) in Trading Site s (to which the Netting Generator Unit is registered)
4. the expression $\text{Max}\{TLA Fuh\} \forall u \text{ in } s$ denotes the highest Transmission Loss Adjustment Factor (TLA Fuh) of each Generator Unit u in Trading Site s (excluding the Netting Generator Unit) in Trading Period h.

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Actual Output for Generator Units

4.68 For each Generator Unit u in each Trading Period h, the value of Actual Output (AOuh) is calculated as follows:

$$AOuh = \frac{MGuh}{TPD}$$

Where

1. MGuh is the Metered Generation for Generator Unit u in Trading Period h
2. TPD is the Trading Period Duration.

4.68A Intentionally blank.

Error Supplier Units

4.69 For each Error Supplier Unit v' , each of which is associated with a Jurisdiction e , the Loss-Adjusted Net Demand ($NDLFv'h$) shall be calculated as follows:

$$NDLFv'h = \sum_{u \text{ in } e} MGLFuh - \sum_{v \text{ in } e} MDLFvh + NIJILFeh$$

Where

1. $\sum_{u \text{ in } e} MGLFuh$ is the total Metered Generation, Loss-Adjusted, of all Generator Units u within Jurisdiction e excluding Netting Generator Units
2. $\sum_{v \text{ in } e} MDLFvh$ is the total Metered Demand, Loss-Adjusted, of all Supplier Units v within Jurisdiction e excluding the Error Supplier Unit
3. $NIJILFeh$ is the Net Inter-Jurisdictional Import to Jurisdiction e in Trading Period h , expressed in MWh, with appropriate adjustment for Transmission Losses.

Net Demand at Supplier Units

4.70 For all Supplier Units v , which are not Error Supplier Units, Trading Site Supplier Units or Associated Supplier Units, the Net Demand in Trading Period h ($NDvh$) is calculated as follows:

$$NDvh = MDvh$$

Where

1. $MDvh$ is the Metered Demand at Supplier Unit v in Trading Period h .

ENERGY PAYMENTS AND ENERGY CHARGES

Energy Payments for Generator Units

4.71 Intentionally blank.

4.72 The Energy Payment ($ENPuh$) payable in respect of each Generator Unit u for Trading Period h is calculated as follows:

$$ENPuh = TPD \times MSQLFuh \times SMP_h$$

Where

1. TPD is Trading Period Duration
2. $MSQLFuh$ is the Loss-Adjusted Market Schedule Quantity for Generator Unit u in Trading Period h

3. SMP_h is the System Marginal Price in Trading Period h.

Energy Charges to Supplier Units

- 4.73 The Energy Charge (ENC_vh) recoverable in respect of each Supplier Unit v for Trading Period h is calculated as follows:

$$ENC_{vh} = NDLF_{vh} \times SMP_h$$

Where

1. NDLF_vh is the Loss-Adjusted Net Demand from Supplier Unit v in Trading Period h
2. SMP_h is the System Marginal Price in Trading Period h.

CAPACITY PAYMENTS AND CAPACITY CHARGES

Parameters for the determination of Capacity Payments and Capacity Charges

- 4.74 No later than four months before the start of the first Capacity Period in each Year, the Regulatory Authorities shall consider and shall determine values, which will then be made available to the Market Operator, for the following parameters for the determination of Capacity Payments and Capacity Charges for that Year:

1. Annual Capacity Payment Sum (ACPS_y);
2. Capacity Period Payment Sum (CPPS_c) in each Capacity Period, such that the total of Capacity Period Payment Sums over the Year is equal to the Annual Capacity Payment Sum (ACPS_y);
3. Fixed Capacity Payments Proportion (FCPP_y), such that $0 \leq FCPP_y \leq 1$;
4. Ex-Post Capacity Payments Proportion (ECCP_y), such that $0 \leq ECCP_y \leq (1-FCPP_y)$;
5. The Value of Lost Load (VOLL)

- 4.74A The Market Operator shall make a report to the Regulatory Authorities at least four months before the start of the Year and in advance of the first Capacity Period in each Year, proposing a value for the following parameter:

1. the Annual Capacity Exchange Rate (ACER_y).

- 4.74B The Market Operator's report must set out any relevant research or analysis carried out by the Market Operator and any justification for the specific values proposed. Such a report may, and shall, if so requested by the Regulatory Authorities, include alternative values from those proposed and will set out the arguments for and against such alternatives.

- 4.74C The Market Operator shall publish the approved value(s) for each of the parameters set out in paragraphs 4.74 and 4.74A on receipt of the Regulatory Authorities' determination and, in any event, at least two months

before the start of the Year or within 5 Working Days of receipt of the determination whichever is the later.

Basis for Capacity Payments and Capacity Charges

- 4.75 Capacity Payments are made in respect of each Generator Unit on the basis of its Loss-Adjusted Eligible Availability in each Trading Period as set out algebraically below.
- 4.76 Capacity Charges are levied in respect of Loss-Adjusted Net Demand at each Supplier Unit in each Trading Period as set out algebraically below.
- 4.76A Intentionally blank.
- 4.77 The Market Operator shall determine prior to the start of the first Capacity Period in each Year the variable element of Capacity Payments which is dependent on the Loss of Load Probability (λ_h) in each Trading Period h. The calculation methodology, the “Function for the Determination of Capacity Payments”, is set out in Appendix M.
- 4.77A The Market Operator shall determine the Ex-Post Loss of Load Probability in each Trading Period, Φ_h , in accordance with the settlement timetable. The relevant calculation methodology, the “Function for the Determination of Capacity Payments”, is set out in Appendix M.
- 4.77B The Market Operator shall determine prior to the start of the first Capacity Period in each Year the Forecast Demand (FDh) in each Trading Period h (based on the Annual Load Forecast Data). The relevant calculation methodology, the “Function for the Determination of Capacity Payments”, is set out in Appendix M.

Calculation of Capacity Payments

- 4.78 The Capacity Period Payment Sum (CPPSc) is divided into the Capacity Period Fixed Sum (CPFSc), the Capacity Period Variable Sum (CPVSc) and the Capacity Period Ex-Post Sum (CPESc) within each Capacity Period c, using the Fixed Capacity Payments Proportion (FCPPy) and Ex-Post Capacity Payments Proportion (ECPPy):

$$CPFSc = CPPSc \times FCPPy$$

$$CPESc = CPPSc \times ECPPy$$

$$CPVSc = CPPSc \times (1 - (FCPPy + ECPPy))$$

Where

- 1. CPPSc is the Capacity Period Payment Sum in Capacity Period c
- 2. FCPPy is the Fixed Capacity Payments Proportion for Year y
- 3. ECPPy is the Ex-Post Capacity Payments Proportion for Year y

- 4.79 For each Trading Period h within the Capacity Period c, a Fixed Capacity Payments Weighting Factor (FCPWFh) is calculated prior to the start of the first Capacity Period in the Year based on the relative values of Forecast Demand (FDh) as follows:

if $\sum_{h \text{ in } c} (FD_h - MinFD_c) > 0$ then

$$FCPWFh = \frac{FD_h - MinFD_c}{\sum_{h \text{ in } c} (FD_h - MinFD_c)}$$

$$\text{else } FCPWFh = \frac{1}{\text{Number of Trading Periods in Capacity Period}}$$

Where

1. FDh is the Forecast Demand for Trading Period h determined by the Market Operator
2. MinFDc is the minimum value of FDh in any Trading Period h within Capacity Period c
3. summation $\sum_{h \text{ in } c} (FD_h - MinFD_c)$ is over all Trading Periods h in Capacity Period c

4.79A For each Trading Period h within the Capacity Period, a Variable Capacity Payments Weighting Factor (VCPWFh) is calculated prior to the start of the relevant Capacity Period based on the relative values of the Loss of Load Probability in Trading Period h (λ_h):

if $\sum_{h \text{ in } c} \lambda_h > 0$ then

$$VCPWFh = \frac{\lambda_h}{\sum_{h \text{ in } c} \lambda_h},$$

$$\text{else } VCPWFh = \frac{1}{\text{Number of Trading Periods in Capacity Period}}$$

Where

1. λ_h is the Loss of Load Probability in Trading Period h determined in accordance with the "Function for the Determination of Capacity Payments" set out in Appendix M
2. summation $\sum_{h \text{ in } c}$ is over all Trading Periods h in Capacity Period c

4.79AA For each Trading Period h within the Capacity Period c, an Interim Ex-Post Capacity Payments Weighting Factor (IECPWFh) is calculated based on the relative values of the Ex-Post Loss of Load Probability ($I\Phi_h$):

if $\sum_{h \text{ in } c} I\phi_h > 0$ then

$$IECPWFh = \frac{I\phi_h}{\sum_{h \text{ in } c} I\phi_h},$$

$$\text{else } IECPWFh = \frac{1}{\text{Number of Trading Periods in Capacity Period}}$$

Where

1. Φ_h is the Ex-Post Loss of Load Probability in Trading Period h determined in accordance with the "Function for the Determination of Capacity Payments" set out in Appendix M
2. summation $\sum_{h \text{ in } c}$ is over all Trading Periods h in Capacity Period

c

4.79B For each Trading Period h within the Capacity Period c, an Ex-Post Capacity Payments Weighting Factor (ECPWFh) is calculated based on the relative values of the Ex-Post Loss of Load Probability in Trading Period h (ϕ_h):

if $\sum_{h \text{ in } c} \phi_h > 0$ then

$$ECPWFh = \frac{\phi_h}{\sum_{h \text{ in } c} \phi_h},$$

$$\text{else } ECPWFh = \frac{1}{\text{Number of Trading Periods in Capacity Period}}$$

Where

1. Φ_h is the Ex-Post Loss of Load Probability in Trading Period h determined in accordance with the "Function for the Determination of Capacity Payments" set out in Appendix M
2. summation $\sum_{h \text{ in } c}$ is over all Trading Periods h in Capacity Period c

4.80 For each Trading Period h within the Capacity Period c, a Capacity Payments Price Factor (CPPFh) is calculated to scale Capacity Payments for Demand and scheduled generation based on the level of System Marginal Price (SMP_h) and the Value of Lost Load (VOLL) as set out algebraically below:

$$CPPFh = \text{Max} \left\{ \left(\frac{(VOLL - SMP_h)}{VOLL} \right), 0 \right\}$$

Where

1. SMP_h is the System Marginal Price in Trading Period h
2. VOLL is the Value of Lost Load

Capacity Payments in Respect of Generator Units

- 4.81 Capacity Payments will be determined for each Generator Unit in each Trading Period and paid to the relevant Participant as a separate payment in each Capacity Period according to the procedures set out in Section 6.
- 4.82 The Loss-Adjusted Capacity Payments Eligible Availability (CPEALF_{uh}) for each Generator Unit u in each Trading Period h is determined as follows:

$$CPEALF_{uh} = TPD \times EALF_{uh}$$

Where

1. TPD is the Trading Period Duration
2. EALF_{uh} is the Loss-Adjusted Eligible Availability for Capacity Payments for Generator Unit u in Trading Period h

Capacity Payments Generation Price Factor

- 4.83 Capacity Payments for Generator Units are set out below.
- 4.84 For Generator Units u in respect of which Participants submit Prices as part of their Commercial Offer Data, then for each Accepted Price Quantity Pair i which is applicable in Trading Period h, the Unscheduled Capacity Offer Quantity (UCOQ_{uhi}) and Unscheduled Capacity Offer Price (UCOP_{uhi}) are determined as follows:

$$UCOP_{uhi} = \text{Max}\{SMP_h, P_{uhi}\}$$

$$UCOQ_{uhi} = \text{Min}\{EA_{uh}, \text{Max}\{Q_{uhi}, MSQ_{uh}\}\} - \text{Min}\{EA_{uh}, \text{Max}\{Q_{uh}(i-1), MSQ_{uh}\}\}$$

Where

1. SMP_h is the System Marginal Price in Trading Period h
2. P_{uhi} is the ith Price for Generator Unit u which is applicable in Trading Period h
3. Q_{uhi} is the ith Quantity for Generator Unit u which is applicable in Trading Period h
4. Q_{uh}(0) is defined as the Minimum Output (MINOUT_{uh}) for Generator Unit u in Trading Period h
5. EA_{uh} is the Eligible Availability for Generator Unit u in Trading Period h
6. MSQ_{uh} is the Market Schedule Quantity for Generator Unit u in Trading Period h

4.84A For Generator Units u which are not required to submit Prices as part of their Commercial Offer Data for any Trading Period h , all values of Unscheduled Capacity Offer Quantity ($UCOQu_i$) and Unscheduled Capacity Offer Price ($UCOPu_i$) are set to equal zero.

4.85 The Capacity Payments Generation Price Factor ($CPGPFu_h$) is determined for each Generator Unit u in Trading Period h as follows:

if $(MSQu_h + \sum_i UCOQu_i) \neq 0$, *then*

$$CPGPFu_h = \frac{\left((MSQu_h \times CPPFh) + \sum_i \left(UCOQu_i \times \text{Max} \left\{ \frac{VOLL - UCOPu_i}{VOLL}, 0 \right\} \right) \right)}{MSQu_h + \sum_i UCOQu_i}$$

else $CPGPFu_h = 0$

Where

1. $MSQu_h$ is the Market Schedule Quantity for Generator Unit u in Trading Period h
2. $CPPFh$ is the Capacity Payments Price Factor for Trading Period h in the Capacity Period c
3. \sum_i is a summation over all Accepted Price Quantity Pairs i for Generator Unit u which are applicable in Trading Period h
4. $UCOQu_i$ is the Unscheduled Capacity Offer Quantity for Generator Unit u , for Price Quantity Pair i which is applicable in Trading Period h
5. $UCOPu_i$ is the Unscheduled Capacity Offer Price for Generator Unit u , for Price Quantity Pair i which is applicable in Trading Period h
6. $VOLL$ is the Value of Lost Load

Fixed Capacity Payments Generation Price Calculations

4.86 For each Capacity Period c , the Capacity Period Fixed Generation Scaling Price ($CPFGSPc$) is calculated as follows:

if $\sum_{u,h \text{ in } c} (CPEALFuh \times FCPWFh \times CPGPFuh) > 0$ then

$$CPFGSPc = \frac{CPFSc}{\sum_{u,h \text{ in } c} (CPEALFuh \times FCPWFh \times CPGPFuh)}$$

else $CPFGSPc = 0$

Where

1. CPFSc is the Capacity Period Fixed Sum in Capacity Period c
2. CPEALFuh is the Loss-Adjusted Capacity Payments Eligible Availability for Generator Unit u in Trading Period h
3. FCPWFh is the Fixed Capacity Payments Weighting Factor in Trading Period h
4. CPGPFuh is the Capacity Payments Generation Price Factor for Generator Unit u in Trading Period h
5. the summation $\sum_{u,h \text{ in } c}$ is a summation over all Generator Units u, and across all Trading Periods h within Capacity Period c

4.86A For each Trading Period h within Capacity Period c, the Fixed Capacity Payments Generation Price (FCGPh) is calculated as follows:

$$FCGPh = FCPWFh \times CPFGSPc$$

Where

1. FCPWFh is the Fixed Capacity Payments Weighting Factor in Trading Period h
2. CPFGSPc is the Capacity Period Fixed Generation Scaling Price in Capacity Period c

Variable Capacity Payments Generation Price Calculations

4.87 For each Capacity Period c, the Capacity Period Variable Generation Scaling Price (CPVGSPc) is calculated as follows:

if $\sum_{u,h \text{ in } c} (CPEALFuh \times CPGPFuh \times VCPWFh) > 0$ then

$$CPVGSPc = \frac{CPVSc}{\sum_{u,h \text{ in } c} (CPEALFuh \times VCPWFh \times CPGPFuh)}$$

else $CPVGSPc = 0$

Where

1. CPVSc is the Capacity Period Variable Sum in Capacity Period c
2. CPEALFuh is the Loss-Adjusted Capacity Payments Eligible Availability for Generator Unit u in Trading Period h
3. VCPWFh is the Variable Capacity Payments Weighting Factor in Trading Period h
4. CPGPFuh is the Capacity Payments Generation Price Factor for Generator Unit u in Trading Period h
5. the summation $\sum_{u,h \text{ in } c}$ is a summation over all Generator Units u, and across all Trading Periods h within Capacity Period c.

4.88 For each Trading Period h within Capacity Period c, the Variable Capacity Payments Generation Price (VCGPh) is calculated as follows:

$$VCGPh = VCPWFh \times CPVGSPc$$

Where

1. VCPWFh is the Variable Capacity Payments Weighting Factor in Trading Period h.
2. CPVGSPc is the Capacity Period Variable Generation Scaling Price in Capacity Period c

Ex-Post Capacity Payments Generation Price Calculations

4.88A For each Capacity Period c, the Capacity Period Ex-Post Generation Scaling Price (CPEGSPc) is calculated as follows:

if $\sum_{u,h \text{ in } c} (CPEALFuh \times CPGPFuh \times ECPWFh) > 0$ then

$$CPEGSPc = \frac{CPESc}{\sum_{u,h \text{ in } c} (CPEALFuh \times ECPWFh \times CPGPFuh)}$$

else $CPEGSPc = 0$

Where

1. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
2. CPEALFuh is the Loss-Adjusted Capacity Payments Eligible Availability for Generator Unit u in Trading Period h
3. ECPWFh is the Ex-Post Capacity Payments Weighting Factor in Trading Period h

4. CPGPF_{uh} is the Capacity Payments Generation Price Factor for Generator Unit *u* in Trading Period *h*
5. the summation $\sum_{u,h \text{ in } c}$ is a summation over all Generator Units *u*, and across all Trading Periods *h* within Capacity Period *c*

4.88B For each Trading Period *h* within Capacity Period *c*, the Ex-Post Capacity Payments Generation Price (ECGPh) is calculated as follows:

$$ECGPh = ECPWFh \times CPEGSPc$$

Where

1. ECPWF_h is the Ex-Post Capacity Payments Weighting Factor in Trading Period *h*
2. CPEGSP_c is the Capacity Period Ex-Post Generation Scaling Price in Capacity Period *c*

Capacity Payments Generation Price Calculations

4.89 The Capacity Payments Generation Price (CPGPh) is calculated for each Trading Period *h* as follows:

$$CPGPh = (VCGPh + FCGPh + ECGPh) \times CPPFh$$

Where

1. VCGPh is the Variable Capacity Payments Generation Price in Trading Period *h*
2. FCGPh is the Fixed Capacity Payments Generation Price in Trading Period *h*
3. ECGPh is the Ex-Post Capacity Payments Generation Price in Trading Period *h*
4. CPPF_h is the Capacity Payments Price Factor in Trading Period *h*.

Capacity Payments Calculations

4.90 The Capacity Payment (CP_{uh}) for each Generator Unit *u* in Trading Period *h* is calculated as follows:

if CPPF_h ≠ 0 *then*

$$CP_{uh} = CPGPh \times CPEALF_{uh} \times \left(\frac{CPGPF_{uh}}{CPPFh} \right)$$

else $CP_{uh} = CPGPF_{uh} \times CPEALF_{uh} \times (VCGPh + FCGPh + ECGPh)$

Where

1. CPPF_h is the Capacity Payments Price Factor in Trading Period h
2. CPGPh is the Capacity Payments Generation Price in Trading Period h
3. CPEALF_{uh} is the Loss-Adjusted Capacity Payments Eligible Availability for Generator Unit u in Trading Period h
4. CPGPF_{uh} is the Capacity Payments Generation Price Factor for Generator Unit u in Trading Period h
5. VCGPh is the Variable Capacity Payments Generation Price in Trading Period h
6. FCGPh is the Fixed Capacity Payments Generation Price in Trading Period h
7. ECGPh is the Ex-Post Capacity Payments Generation Price in Trading Period h

4.91 The Capacity Period Payment (CPP_{uc}) for each Generator Unit u in each Capacity Period c is calculated as follows:

$$CPP_{uc} = \sum_{h \text{ in } c} CP_{uh}$$

Where

1. CP_{uh} is the Capacity Payment for Generator Unit u in Trading Period h
2. the summation $\sum_{h \text{ in } c}$ is over all Trading Periods h in Capacity Period c

Capacity Charges

4.92 Capacity Charges will be levied on Supplier Units in each Trading Period according to the procedures set out below.

4.93 Intentionally blank.

4.94 For each Capacity Period c, the Capacity Period Demand Scaling Price (CPDSP_c) is calculated as follows:

if $\sum_{v,h \text{ in } c} (NDLFvh \times FCPWFh \times CPPFh) \neq 0$ then

$$CPDSPc = \frac{CPPSc}{\sum_{v,h \text{ in } c} (NDLFvh \times FCPWFh \times CPPFh)}$$

else $CPDSPc = 0$

Where

1. CPPSc is the Capacity Period Payment Sum in Capacity Period c
2. NDLFvh is the Loss-Adjusted Net Demand of Supplier Unit v in Trading Period h
3. FCPWFh is the Fixed Capacity Payments Weighting Factor in Trading Period h
4. CPPFh is the Capacity Payments Price Factor in Trading Period h
5. the summation $\sum_{v,h \text{ in } c}$ is over all Trading Periods h in Capacity Period c and over all Supplier Units v

4.95 Intentionally blank.

4.96 The Capacity Payments Demand Price (CPDPh) is calculated for each Trading Period h as follows:

$$CPDPh = FCPWFh \times CPDSPc \times CPPFh$$

Where

1. FCPWFh is the Fixed Capacity Payments Weighting Factor in Trading Period h
2. CPDSPc is the Capacity Period Demand Scaling Price in Capacity Period c
3. CPPFh is the Capacity Payments Price Factor in Trading Period h

Capacity Charge Calculations

4.97 The Capacity Charge (CCvh) for each Supplier Unit v in Trading Period h is calculated as follows:

$$CCvh = CPDPh \times NDLFvh$$

Where

1. CPDP_h is the Capacity Payments Demand Price in Trading Period *h*
2. NDLF_{vh} is the Loss-Adjusted Net Demand at Supplier Unit *v* in Trading Period *h*

4.98 The Capacity Period Charge (CPC_{vc}) for each Supplier Unit *v* in each Capacity Period *c* is calculated as follows:

$$CPC_{vc} = \sum_{h \text{ in } c} CC_{vh}$$

Where

1. CC_{vh} is the Capacity Charge for Supplier Unit *v* in Trading Period *h*
2. the summation $\sum_{h \text{ in } c}$ is over all Trading Periods *h* in Capacity Period *c*

CONSTRAINT PAYMENTS

4.98A A Constraint Payment will apply in respect of a Generator Unit in a Trading Period whenever the Dispatch Production Cost differs from the Schedule Production Cost for that Trading Period, as set out algebraically below.

4.98B For the avoidance of doubt, Constraint Payments will apply irrespective of the cause for the difference in Dispatch Production Cost and Schedule Production Cost, including, inter alia, the decision of the relevant System Operator to dispatch Generator Units to provide reserve or other ancillary services.

Calculation of the Market and Dispatch Offer Prices

4.99 The calculation of Constraint Payments requires the determination of the Market Offer Price (MOP_{uh}) and the Dispatch Offer Price (DOP_{uh}) for each Generator Unit *u* in each Trading Period *h*.

4.100 The Market Offer Price for Generator Unit *u* in Trading Period *h* (MOP_{uh}) is determined as follows:

if MSQ_{uh} ≤ Q_{uh1}, then MOP_{uh} = P_{uh1},

else MOP_{uh} = P_{uhi}, where *i* satisfies the equation: Q_{uh(i-1)} < MSQ_{uh} ≤ Q_{uhi}

Where

1. MSQ_{uh} is the Market Schedule Quantity for Generator Unit *u* in Trading Period *h*
2. P_{uhi} is the *i*th Price Accepted for Generator Unit *u* applicable to Trading Period *h*.

3. $Q_{u,i}$ is the i th Quantity for Generator Unit u applicable to Trading Period h
- 4.101 The Dispatch Offer Price for Generator Unit u in Trading Period h ($DOP_{u,h}$), is determined as follows:
- if $DQ_{u,h} \leq Q_{u,1}$, then $DOP_{u,h} = P_{u,1}$,
else $DOP_{u,h} = P_{u,i}$, where i satisfies the equation $Q_{u,(i-1)} < DQ_{u,h} \leq Q_{u,i}$

Where

1. $DQ_{u,h}$ is the Dispatch Quantity for Generator Unit u in Trading Period h
 2. $P_{u,i}$ is the i th Price for Generator Unit u applicable to Trading Period h
 3. $Q_{u,i}$ is the i th Quantity for Generator Unit u applicable to Trading Period h
- 4.102 Intentionally blank.
- 4.103 Intentionally blank.

Calculation of Constraint Payments to Generator Units

- 4.104 For the following calculations:
1. $MSQLF_{u,h}$ is the Loss-Adjusted Market Schedule Quantity for Generator Unit u in Trading Period h
 2. $NLC_{u,h}$ is the No Load Cost for Generator Unit u in Trading Period h
 3. $MOP_{u,h}$ is the Market Offer Price for Generator Unit u in Trading Period h , corresponding to a Market Schedule Quantity of $MSQ_{u,h}$, or SMP_h for any Generator Unit that does not submit Prices as part of its Commercial Offer Data
 4. $MNLC_{u,h}$ is the Market No Load Cost calculated as follows:

if $MSQ_{u,h} > 0$ then

$MNLC_{u,h} = NLC_{u,h}$

else $MNLC_{u,h} = 0$
 5. $MSQCC_{u,h}$ is the Market Schedule Quantity Cost Correction for Generator Unit u in Trading Period h , as determined according to paragraph 4.106, or zero for any Generator Unit that does not submit Prices as part of its Commercial Offer Data.
 6. $DQLF_{u,h}$ is the Loss-Adjusted Dispatch Quantity for Generator Unit u in Trading Period h
 7. $DOP_{u,h}$ is the Dispatch Offer Price for Generator Unit u in Trading Period h , corresponding to a Dispatch Quantity of $DQ_{u,h}$,

or SMPH for any Generator Unit that does not submit Prices as part of its Commercial Offer Data

8. DNLC_{uh} is the Dispatch No Load Cost calculated as follows:

if $DQ_{uh} > 0$ *then*

$$DNLC_{uh} = NLC_{uh}$$

else $DNLC_{uh} = 0$

9. DQCC_{uh} is the Dispatch Quantity Cost Correction for Generator Unit u in Trading Period h, as determined according to paragraph 4.107, or zero for any Generator Unit that does not submit Prices as part of its Commercial Offer Data
10. TPD is the Trading Period Duration
11. CONP_{uh} is the Constraint Payment payable to Generator Unit u for Trading Period h
12. DSUC_{uh} is the Dispatch Start Up Cost for Generator Unit u in Trading Period h, calculated in accordance with paragraph 4.108AA
13. MSUC_{uh} is the Market Start Up Cost for Generator Unit u in Trading Period h, calculated in accordance with paragraph 4.108
14. Q_{uh}(0) is defined as the Minimum Output (MINOUT_{uh}) for Generator Unit u in Trading Period h

- 4.105 For each Generator Unit u in each Trading Period h, the Constraint Payments (CONP_{uh}) will be calculated as set out below, and which can be either positive or negative.

$$CONP_{uh} = TPD \times \left[\begin{array}{l} (DQLF_{uh} \times DOP_{uh} + DNLC_{uh} + DQCCLF_{uh}) \\ - (MSQLF_{uh} \times MOP_{uh} + MNLC_{uh} + MSQCCLF_{uh}) \end{array} \right] + DSUC_{uh} - MSUC_{uh}$$

- 4.106 The Market Schedule Quantity Cost Correction (MSQCC_{uh}) for Generator Unit u in Trading Period h is calculated as follows:

1. Let n = the number of Accepted Price Quantity Pairs for Generator Unit u applicable to Trading Period h
2. The integer k is defined as the smallest integer such that Q_{uh}^k is greater than zero. If Q_{uh}ⁿ is zero or negative, then k=n+1
3. Let:

$$CCX_{uhk} = 0$$

$$CCX_{uhn} = CCX_{uh}(n+1) \text{ (this equation is only required if } k=n+1 \text{)}$$

$$CCX_{uhi} = CCX_{uh}(i-1) + (P_{uh}(i-1) - P_{uhi}) \times Q_{uh}(i-1), \text{ for each } i \text{ in the range } \text{Max}\{2, k+1\} \leq i \leq n \text{ in ascending order of } i$$

$$CCX_{uh}(i-1) = CCX_{uhi} - (P_{uh}(i-1) - P_{uhi}) \times Q_{uh}(i-1) \text{ for each } i \text{ in the range } \text{Min}\{k, n\} \geq i \geq 2 \text{ in descending order of } i$$

if $MSQ_{uh} \leq Q_{uh1}$ then $MSQCC_{uh} = CCX_{uh1}$

else $MSQCC_{uh} = CCX_{uhx}$

where x is an integer which satisfies the
equation $Q_{uh}(x-1) < MSQ_{uh} \leq Q_{uhx}$

4. The subscripts x and k are re-set after each value of $MSQCC_{uh}$ is determined. CCX_{uhi} are local variables used for the determination of $MSQCC_{uh}$.

4.107 The Dispatch Quantity Cost Correction ($DQCC_{uh}$) is calculated as follows:

1. Let n = the number of Accepted Price Quantity Pairs for Generator Unit u applicable to Trading Period h
2. The integer k is defined as the smallest integer such that Q_{uhk} is greater than zero. If Q_{uhn} is zero or negative, then $k=n+1$

3. Let:

$$CCX_{uhk} = 0$$

$$CCX_{uhn} = CCX_{uh}(n+1) \text{ (this equation is only required if } k=n+1)$$

$$CCX_{uhi} = CCX_{uh}(i-1) + (P_{uh}(i-1) - P_{uhi}) \times Q_{uh}(i-1), \text{ for each } i \text{ in the range } \text{Max}\{2, k+1\} \leq i \leq n \text{ in ascending order of } i$$

$$CCX_{uh}(i-1) = CCX_{uhi} - (P_{uh}(i-1) - P_{uhi}) \times Q_{uh}(i-1), \text{ for each } i \text{ in the range } \text{Min}\{k, n\} \geq i \geq 2 \text{ in descending order of } i$$

if $DQ_{uh} \leq Q_{uh1}$ then $DQCC_{uh} = CCX_{uh1}$

else $DQCC_{uh} = CCX_{uhx}$,

where x is an integer which satisfies the

$$\text{equation } Q_{uh}(x-1) < DQ_{uh} \leq Q_{uhx}$$

4. The subscripts x and k are re-set after each value of $DQCC_{uh}$ is determined. CCX_{uhi} are local variables used for the determination of $DQCC_{uh}$.

4.108 The value of Market Start Up Cost ($MSUC_{uh}$) for a Generator Unit u in Trading Period h is zero except in those Trading Periods where that Generator Unit has a Market Schedule Start. In such Trading Periods, the Market Start Up Cost ($MSUC_{uh}$) will be equal to the Accepted Start Up Cost for the relevant Market Schedule Warmth State.

4.108AA The value of Dispatch Start Up Cost ($DSUC_{uh}$) for a Generator Unit u in Trading Period h is zero except in those Trading Periods where that Generator Unit has a Dispatch Start. In such Trading Periods, the Dispatch

Start Up Cost will be equal to the Accepted Start Up Cost value relating to the Dispatch Warmth State at the time of the Dispatch Start.

MAKE WHOLE PAYMENTS

4.108A Make Whole Payments are intended to make up any difference between the total Energy Payments to a Generator Unit in a Billing Period, and the Schedule Production Cost within that Billing Period (where the difference is arithmetically positive calculated over the Billing Period), as set out algebraically below.

4.109 Make Whole Payments are calculated on a Billing Period basis for each Generator Unit u in Billing Period b , as follows:

$$MWP_{ub} = \text{Max} \left\{ \sum_{h \in b} \left[\left((MOP_{uh} - SMP_h) \times MSQ_{LFuh} \right) \times TPD + MSUC_{uh} \right], 0 \right\}$$

Where

1. MWP_{ub} is the Make Whole Payment for Generator Unit u in Billing Period b
2. MOP_{uh} is the Market Offer Price of Generator Unit u in Trading Period h
3. SMP_h is the System Marginal Price for Trading Period h
4. MSQ_{LFuh} is the Loss-Adjusted Market Schedule Quantity for Generator Unit u in Trading Period h
5. TPD is the Trading Period Duration
6. $MNLC_{uh}$ is the Market No Load Cost for Generator Unit u in Trading Period h
7. $MSQCCL_{Fuh}$ is the Loss-Adjusted Market Schedule Quantity Cost Correction for Generator Unit u in Trading Period h
8. $MSUC_{uh}$ is the Market Start Up Cost for Generator Unit u in Trading Period h
9. the summation $\sum_{h \in b}$ is over all Trading Periods h in Billing Period b excluding any Trading Periods h in which the Generator Unit is Under Test.

UNINSTRUCTED IMBALANCES

General Rules for Uninstructed Imbalances

4.110 Uninstructed Imbalances shall be calculated as set out algebraically below except as provided for in Section 5. An Uninstructed Imbalance occurs, in a Trading Period, if the Actual Output of such a Generator Unit differs from its Dispatch Quantity in that Trading Period.

- 4.111 The System Operator shall make a report to the Regulatory Authorities at least four months before the start of the Year, proposing values for the following parameters used in the calculation of Uninstructed Imbalances:
1. Engineering Tolerance $ENG\text{TOL}$ (where $0 \leq ENG\text{TOL} \leq 1$);
 2. MW Tolerance $MW\text{TOL}_t$ (where $0 \leq MW\text{TOL}_t \leq 1$) for each Trading Day t ;
 3. System per Unit Regulation parameter $UREG$;
 4. the Discount for Over Generation (DOG_{uh}) for each Generator Unit u in each Trading Period h , such that $0 \leq DOG_{uh} \leq 1$; and
 5. the Premium for Under Generation (PUG_{uh}) for each Generator Unit u in each Trading Period h such that $0 \leq PUG_{uh} \leq 1$.
- 4.111A The System Operator's report shall set out any relevant research or analysis carried out by the System Operator and any justification for the specific values proposed. Such a report may, and will if so requested by the Regulatory Authorities, include alternative values from those proposed and will set out the arguments for and against such alternatives.
- 4.111B On receipt of the Regulatory Authorities' determination and no later than two months before the start of the Year or within 5 Working Days of receipt whichever is the later, the Market Operator shall publish the approved value(s) for each parameter.
- 4.112 Intentionally blank.
- 4.112A For each Trading Day, values of Nominal System Frequency, ($NORFRQ_h$) and Average System Frequency ($AVGFRQ_h$) for each Trading Period h in that Trading Day will be submitted to the Market Operator by the System Operators, by 14:00 on the next Working Day following the relevant Trading Day.

Uninstructed Imbalance Tolerances

- 4.113 The Tolerance Bands for over generation and under generation will be calculated for each Generator Unit for each Trading Period with reference to system frequency and the frequency characteristics of the Generator Unit as set out algebraically below.
- 4.114 Intentionally blank.
- 4.115 The Engineering Limit ($ENGLIM_{uh}$), expressed in MW, is calculated for each Generator Unit u for each Trading Period h as follows:

$$ENGLIM_{uh} = \text{Max}\{|DQ_{uh}| \times ENG\text{TOL}, MW\text{TOL}_t\}$$

Where

1. DQ_{uh} is the Dispatch Quantity for Generator Unit u in Trading Period h
2. $ENG\text{TOL}$ is the Engineering Tolerance

3. MWTOL_t is the MW Tolerance for the relevant Trading Period h within Trading Day t

4.116 The Tolerance for Over Generation (TOLOG_{uh}) and Tolerance for Under Generation (TOLUG_{uh}) values are calculated as positive values, expressed in MW for each Generator Unit u for each Trading Period h as follows:

if $AVGFRQ_h \leq NORFRQ_h$ *then*

$$TOLOG_{uh} = \left(\frac{(NORFRQ_h - AVGFRQ_h) \times RC_u}{(UREG \times NORFRQ_h)} \right) + ENGLIM_{uh}$$

$$TOLUG_{uh} = ENGLIM_u$$

else

$$TOLOG_{uh} = ENGLIM_{uh}$$

$$TOLUG_{uh} = \left(\frac{(AVGFRQ_h - NORFRQ_h) \times RC_u}{(UREG \times NORFRQ_h)} \right) + ENGLIM_{uh}$$

Where

1. AVGFRQ_h is the Average Frequency in Trading Period h
2. NORFRQ_h is the Nominal System Frequency for Trading Period h
3. RC_u is the Registered Capacity of Generator Unit u
4. UREG is the System per Unit Regulation parameter
5. ENGLIM_{uh} is the Engineering Limit for Generator Unit u for Trading Period h

Payments to Generator Units for Uninstructed Imbalance

4.117 For the following calculations:

1. DQLF_{uh} is the Loss-Adjusted Dispatch Quantity for Generator Unit u in Trading Period h
2. AOLF_{uh} is the Loss-Adjusted Actual Output from Generator Unit u in Trading Period h
3. TOLOGLF_{uh} is the Loss-Adjusted Tolerance for Over Generation for Generator Unit u in Trading Period h
4. TOLUGLF_{uh} is the Loss-Adjusted Tolerance for Under Generation for Generator Unit u in Trading Period h
5. DOG_{uh} is the Discount for Over Generation for Generator Unit u in Trading Period h

6. PUG_{uh} is the Premium for Under Generation for Generator Unit u in Trading Period h
7. UNIMP_{uh} is the Uninstructed Imbalance payment to Generator Unit u in Trading Period h
8. SMP_h is the System Marginal Price in Trading Period h
9. DOP_{uh} is the Dispatch Offer Price for Generator Unit u in Trading Period h
10. TPD is the Trading Period Duration

4.118 The calculation of payments for Uninstructed Imbalances for each Generator Unit u in Trading Period h is as follows:

if $DQLF_{uh} \leq AOLF_{uh} \leq (DQLF_{uh} + TOLOGLF_{uh})$ *then*

$$UNIMP_{uh} = TPD \times \text{Min}\{SMP_h, DOP_{uh}\} \times (AOLF_{uh} - DQLF_{uh})$$

else if $(DQLF_{uh} - TOLUGLF_{uh}) \leq AOLF_{uh} < DQLF_{uh}$ *then*

$$UNIMP_{uh} = TPD \times \text{Max}\{SMP_h, DOP_{uh}\} \times (AOLF_{uh} - DQLF_{uh})$$

else if $AOLF_{uh} > (DQLF_{uh} + TOLOGLF_{uh})$ *then*

$$UNIMP_{uh} = TPD \times \text{Min}\{SMP_h, DOP_{uh}\} \times TOLOGLF_{uh} + \\ TPD \times [AOLF_{uh} - (DQLF_{uh} + TOLOGLF_{uh})] \times \\ [\text{Min}\{DOP_{uh} - DOG_{uh} \times |DOP_{uh}|, SMP_h - DOG_{uh} \times |SMP_h|\}]$$

else if $AOLF_{uh} < (DQLF_{uh} - TOLUGLF_{uh})$ *then*

$$UNIMP_{uh} = -TPD \times \text{Max}\{SMP_h, DOP_{uh}\} \times TOLUGLF_{uh} - \\ TPD \times [(DQLF_{uh} - TOLUGLF_{uh}) - AOLF_{uh}] \times \\ [\text{Max}\{DOP_{uh} + PUG_{uh} \times |DOP_{uh}|, SMP_h + PUG_{uh} \times |SMP_h|\}]$$

IMPERFECTIONS CHARGES

4.118A The Market Operator shall make a report to the Regulatory Authorities at least four months before the start of the Year, proposing the following parameters used in the determination of Imperfections Charges::

1. The Imperfections Price in euro/MWh for Year y; and
2. Values of the Imperfections Charge Factor for each Trading Period h in Year y.

4.118B The Market Operator's report must set out any relevant research or analysis carried out by the Market Operator and the justification for the specific values proposed. Such a report may, and shall if so requested by the

Regulatory Authorities, include alternative values from those proposed and must set out the arguments for and against such alternatives.

4.118C The Market Operator shall publish the approved value(s) for each parameter on receipt of the Regulatory Authorities' determination and, in any event, at least two months before the start of the Year or within 5 Working Days of receipt whichever is the later...

4.119 The Imperfections Charge is intended to recover the anticipated net payments to Generator Units in respect of Constraint Payments, Uninstructed Imbalances (less Testing Charges for Generator Units), Make Whole Payments and any net imbalance between Energy Payments and Energy Charges over the Year, with adjustments for previous Years as appropriate.

4.119A The Imperfections Charge (IMPC_{vh}) for each Supplier Unit v in each Trading Period h is calculated as follows:

$$IMPC_{vh} = NDLF_{vh} \times IMP_y \times IMPF_h$$

Where

1. IMP_y is the Imperfections Price for Year y
2. NDLF_{vh} is the Loss-Adjusted Net Demand of Supplier Unit v in Trading Period h
3. IMPF_h is the Imperfections Charge Factor for Trading Period h.

4.120 The Imperfections Charge Factor (IMPF_h) will be set equal to 1 for all Trading Periods.

5. CATEGORISATION OF UNITS AND RULES FOR SPECIAL UNITS

DEFINITIONS AND GENERAL

- 5.1 Special Units are subject to the specific rules set out in this Section 5. These specific rules are in addition to, or, where appropriate, in replacement of, the rules as specified in Section 4.
- 5.2 The extent of application of any specific conditions in this Section 5 to a Unit shall be determined by:
1. the classification of the Unit into a Generic Settlement Class as set out further below, and/or
 2. the specific category of the Special Unit concerned for the purposes of paragraph 2.40A above.

Classification of Generator Units

Classification as Predictable, Variable or Autonomous

- 5.3 At registration, each Generator Unit shall be classified as:
1. A Predictable Generator Unit; or
 2. A Variable Generator Unit; or
 3. An Autonomous Generator Unit.

Classification as Autonomous Generator Unit

- 5.4 A Generator Unit shall be classified as an Autonomous Generator Unit and a Price Taker Generator Unit if the Unit is not Dispatchable.

Classification as Variable Generator Unit

- 5.5 A Generator Unit shall be classified as a Variable Generator Unit if:
1. the short-term availability of the Generator Unit is unpredictable as a result of its fuel source; and
 2. the Generator Unit is a Wind Power Unit or a Run-of-River Hydro Unit; and
 3. the Generator Unit is Dispatchable.

Classification as Predictable Generator Unit

- 5.6 Predictable Generator Units are Generator Units which are Dispatchable and which are not otherwise required to be classified as Variable in accordance with paragraph 5.5.

Generic Settlement Classes for Generator Units

- 5.7 At Registration, each Generator Unit will be classified as one of the following five Generic Settlement Classes.
1. Predictable Price Maker Generator Unit;
 2. Predictable Price Taker Generator Unit;
 3. Variable Price Maker Generator Unit;

4. Variable Price Taker Generator Unit; or
5. Autonomous Generator Unit.

5.8 The circumstances under which a Generator Unit may be classified as a Price Maker or Price Taker are set out in paragraphs 2.37 to 2.40.

CONDITIONS APPLYING TO GENERIC SETTLEMENT CLASSES

5.9 Paragraphs 5.10 to 5.31 set out the specific conditions which apply to particular Generic Settlement Classes.

Submission of Data

Submission of Data for Predictable Price Taker Generator Units

5.10 Participants shall submit a Decremental Price for each Trading Period h and a Nomination Profile as part of the Commercial Offer Data for each Trading Day, for each Predictable Price Taker Generator Unit.

5.11 A Nomination Profile for a Generator Unit comprises Nominated Quantities (NQ $_{uh}$) in respect of each Trading Period during the Trading Day.

5.12 Nominated Quantities shall be equal to the output intended by the Participant for each of its Generator Units for each Trading Period during the Trading Day..

5.13 The Nominated Quantities in each Trading Period shall be Physically Feasible.

5.13A For each Predictable Price Taker Generator Unit u in each Trading Period h , the values of Decremental Price (DECP $_{uh}$) submitted by the Participant shall be equal to zero.

Submission of Data for Variable Price Taker Generator Units

5.14 For Variable Price Taker Generator Units, Participants shall submit Technical Offer Data and Commercial Offer Data. The Commercial Offer Data shall include only a Nomination Profile (as set out in paragraphs 5.11 to 5.13) and a Decremental Price for each Trading Period h .

5.15 Participants shall submit Technical Offer Data and Commercial Offer Data for their Variable Price Taker Generator Units,. The Commercial Offer Data shall include only a Nomination Profile (as set out in paragraphs 5.11 to 5.13) and a Decremental Price for each Trading Period h .

5.15A For each Variable Price Taker Generator Unit u in each Trading Period h , the values of Decremental Price (DECP $_{uh}$) submitted by the Participant shall be equal to zero.

Submission of Data for Autonomous Generator Units

5.16 Participants shall not submit Commercial Offer Data or Technical Offer Data in respect of Autonomous Generator Units under the Code.

Sources of Data Values in Initial Settlement

5.17 Table 1 sets out the source of data values used in Initial Settlement for each of the Generic Settlement Classes under a variety of Dispatch Instructions except for Predictable Price Maker Generator Units.

Table 1 – Source of data for Initial Settlement for each of the Generic Settlement Classes other than Predictable Price Maker Generator Units

Category	Form of Dispatch Instruction	Dispatch Quantity DQuh	Availability Profile APuh	Market Schedule Quantity MSQuh
Autonomous Generator Units	N/A	Actual Output AOuh	Actual Output AOuh	Actual Output AOuh
Variable Price Taker Generator Units	Run	Actual Output AOuh	Actual Output AOuh	Actual Output AOuh
	Unit constrained down in Dispatch Instructions to remain below a level of Output of X MW	Time weighted average of (Outturn Availability when not constrained down below X MW, Min{X MW, Outturn Availability} when constrained down below X MW)	Max {Actual Output AOuh, Time weighted average of Outturn Availability}	Max {Actual Output AOuh, Time weighted average of Outturn Availability}
Variable Price Maker Generator Units	Run	Actual Output AOuh	Actual Output AOuh	Calculated by the MSP Software
	Unit constrained down in Dispatch Instructions to remain below a level of Output of X MW	Time weighted average of (Outturn Availability when not constrained down below X MW, Min{X MW, Outturn Availability} when constrained down below X MW)	Max (Actual Output AOuh, Time weighted average of Outturn Availability)	Calculated by the MSP Software
Predictable Price Taker Generator Units	Any	As defined in Section 4	As defined in Section 4	Minimum of Nominated Quantity NQuh and Availability Profile APuh

Constraint Payments and Other Payments and Charges

Autonomous Generator Units

- 5.18 Participants shall not be liable for Uninstructed Imbalance Payments in respect of Autonomous Generator Units.
- 5.19 Participants shall not receive Constraint Payments or Make Whole Payments in respect of Autonomous Generator Units.
- 5.20 The value of Minimum Output (MINOUT_{uh}) for each Autonomous Generator Unit including, for the avoidance of doubt, Netting Generator Units, is calculated as follows:

$$MINOUT_{uh} = \text{Min}\{AO_{uh}, 0\}$$

Where

1. AO_{uh} is the Actual Output for Generator Unit u in Trading Period h
- 5.21 For each Ex-Ante Indicative Market Schedule, no Market Schedule Quantities are defined for any Autonomous Generator Unit..
- 5.21A There are no Market Schedule Quantities defined for any Autonomous Generator Unit for the Trading Periods that are after midnight on that Trading Day for each Ex-Post Indicative Market Schedule, each of which comprises data for an entire Trading Day.

Variable Price Taker Generator Units

- 5.22 Constraint Payments (CONP_{uh}) in respect of each Variable Price Taker Generator Unit u in each Trading Period h are calculated as follows:

if DQ_{uh} < MSQ_{uh} *then*

$$CONP_{uh} = TPD \times (DQLF_{uh} - MSQ_{uh}) \times DECP_{uh}$$

else CONP_{uh} = 0

Where

1. TPD is the Trading Period Duration
 2. DQLF_{uh} is the Loss-Adjusted Dispatch Quantity for Generator Unit u in Trading Period h
 3. MSQ_{uh} is the Loss-Adjusted Market Schedule Quantity for Generator Unit u in Trading Period h
 4. DECP_{uh} is the Decremental Price for Generator Unit u in Trading Period h
- 5.23 Intentionally blank..
- 5.24 Make Whole Payments do not apply for Variable Price Taker Generator Units.
- 5.25 For the purpose of calculation of Uninstructed Imbalances, as set out in paragraph 4.110, for Variable Price Taker Generator Units u in Trading

Period h, the value of Dispatch Offer Price (DOPuh) is deemed to be equal to the System Marginal Price (SMP_h).

- 5.26 For each Variable Price Taker Generator Unit u, the indicative values of Market Schedule Quantity (MSQ_{uh}) for the Ex-Ante Indicative Market Schedule for each Trading Period h will equal the Accepted Nominated Quantities. In the case of Wind Power Units, the relevant values from the System Operator's submitted Wind Power Unit Forecast will be used in place of the Accepted Nominated Quantities.

Predictable Price Taker Generator Units

- 5.27 Constraint Payments (CONP_{uh}) in respect of Predictable Price Taker Generator Units u in each Trading Period h are calculated as set out below:

1. where the Dispatch Quantity (DQ_{uh}) exceeds the Market Schedule Quantity (MSQ_{uh}), Constraint Payments are calculated in accordance with Section 4, and based on the relevant Commercial Offer Data;
2. where the Dispatch Quantity (DQ_{uh}) is less than or equal to the Market Schedule Quantity (MSQ_{uh}), Constraint Payments are calculated as follows:

$$CONP_{uh} = TPD \times (DQLF_{uh} - MSQ_{uh}) \times DECP_{uh}$$

Where

- a. TPD is the Trading Period Duration (in hours)
- b. DQLF_{uh} is the Loss-Adjusted Dispatch Quantity for Generator Unit u in Trading Period h
- c. MSQ_{uh} is the Loss-Adjusted Market Schedule Quantity for Generator Unit u in Trading Period h
- d. DECP_{uh} is the Decremental Price for Generator Unit u in Trading Period h

- 5.28 Intentionally blank..

- 5.29 Make Whole Payments do not apply in respect of Predictable Price Taker Generator Units.

- 5.30 For the purpose of calculation of Uninstructed Imbalances for Predictable Price Taker Generator Units as set out in paragraph 4.110, the value of Dispatch Offer Price (DOP_{uh}) is deemed to be equal to the System Marginal Price (SMP_h) for each Generator Unit u in Trading Period h for which AOL_{Fuh} ≤ MSQ_{Fuh}.

- 5.31 For each Predictable Price Taker Generator Unit u, the indicative values of Market Schedule Quantity for the Ex-Ante Indicative Market Schedule for each Trading Period h will equal the Accepted Nominated Quantities.

INTERCONNECTORS

- 5.32 Each Interconnector Residual Capacity Unit shall be classified as a Predictable Generator Unit, but shall not be classified either as a Price Maker Generator Unit or as a Price Taker Generator Unit. Further special

provisions for Settlement for Interconnector Residual Capacity Units are set out below.

- 5.33 Each Interconnector Error Unit shall be classified as an Autonomous Generator Unit and as a Price Taker Generator Unit. Further special provisions for Settlement for Interconnector Error Units are detailed below.
- 5.33A All values expressed in MW or MWh that relate to imports into the Pool in relation to an Interconnector, Interconnector Units, Interconnector Residual Capacity Units or Interconnector Error Units shall be positive (including zero).
- 5.33B All values expressed in MW or MWh that relate to exports from the Pool in relation to an Interconnector, Interconnector Units, Interconnector Residual Capacity Units or Interconnector Error Units shall be negative or zero.
- 5.34 Intentionally blank.
- 5.35 Intentionally blank.

Interconnector Unit

- 5.35A For the avoidance of doubt, neither any Interconnector Residual Capacity Unit nor any Interconnector Error Unit is an Interconnector Unit for the purposes of this Code.
- 5.36 Each Interconnector Unit shall be classified as a Predictable Price Maker Generator Unit. Further special provisions for Settlement for Interconnector Units are set out below.
- 5.37 Intentionally blank.

Available Transfer Capacity

- 5.37A For each Trading Day for each Interconnector, the relevant Interconnector Owner shall, or shall procure that the relevant Interconnector Administrator shall, by 09:30 on the day prior to Gate Closure for that Trading Day calculate the Available Transfer Capacity (consisting of the Maximum Import Available Transfer Capacity and the Maximum Export Available Transfer Capacity) for each Trading Period in the Optimisation Time Horizon and shall submit the resulting values to the Market Operator.
- 5.37B The Market Operator shall publish such Available Transfer Capacity values for each Trading Day by 10:00 on the day prior to Gate Closure.
- 5.37C Maximum Import Available Transfer Capacity shall relate to the physical capability of the Interconnector to deliver energy to the Transmission System, and shall take account of any further restrictions placed by any relevant agreement or the provisions of any Licence in respect of the Interconnector, but shall not otherwise take account of any expected transmission constraints or other aspects of the operation of the Transmission System.
- 5.37D Maximum Export Available Transfer Capacity shall relate to the physical capability of the Interconnector to off-take energy from the Transmission System, and shall take account of any further restrictions placed by any relevant agreement or the provisions of any Licence in respect of the Interconnector, but shall not otherwise take account of any expected transmission constraints or other aspects of the operation of the Transmission System.

Active Interconnector Unit Capacity Holding Data

- 5.38 For each Trading Day for each Interconnector, the relevant Interconnector Administrator shall submit the Active Interconnector Unit Capacity Holding Data to the Market Operator by Gate Closure for that Trading Day.
- 5.39 The Active Interconnector Unit Capacity Holding Data shall comprise for each Interconnector Unit, the Active Interconnector Unit Import Capacity Holding and the Active Interconnector Unit Export Capacity Holding for each Trading Period during the Optimisation Time Horizon..
- 5.39A The relevant Interconnector Administrator shall make reasonable endeavours to ensure that for each Interconnector Unit, the submitted values of Active Interconnector Unit Capacity Holding Data for the last six hours of the Optimisation Time Horizon are a reasonable expectation of the final values that will be submitted for those Trading Periods
- 5.40 Intentionally blank.
- 5.41 The Market Operator shall by 10:30 on the Day prior to the Trading Day notify each Interconnector User of the Active Interconnector Unit Capacity Holding for its Interconnector Unit.
- 5.42 Intentionally blank.
- 5.43 The relevant Interconnector Administrator shall ensure that the submitted Active Interconnector Unit Capacity Holding Data for each Interconnector is such that the sum of the Active Interconnector Unit Import Capacity Holdings is less than or equal to the Maximum Import Available Transfer Capacity in each Trading Period.
- 5.44 The relevant Interconnector Administrator shall ensure that the submitted Active Interconnector Unit Capacity Holding Data for each Interconnector is such that the sum of the Active Interconnector Unit Export Capacity Holdings is in absolute magnitude less than or equal to the Maximum Export Available Transfer Capacity in each Trading Period.
- 5.45 Agreed Procedure 2 “Interconnector Unit Capacity Right Calculations and Dispatch Notification” sets out the procedure for the calculation and notification of Active Interconnector Unit Capacity Holding”.

Commercial and Technical Offer Data

- 5.46 Before Gate Closure for each Trading Day, Interconnector Users shall submit Commercial Offer Data to the Market Operator for that Trading Day in respect of each of their Interconnector Units.
- 5.47 Commercial Offer Data for Interconnector Units must only include:
1. Up to ten Price Quantity Pairs for each Trading Period during the Trading Day for each Interconnector Unit, where negative Quantities relate to exports from the Pool;
 2. Maximum Interconnector Unit Import Capacity offered on the Interconnector Unit for each Trading Period in the Trading Day; and
 3. Maximum Interconnector Unit Export Capacity offered on the Interconnector Unit in each Trading Period in the Trading Day.
- 5.48 Participants shall not submit any Technical Offer Data for any Interconnector Unit.

- 5.49 Intentionally blank.
- 5.50 Intentionally blank.
- 5.51 The Maximum Interconnector Unit Export Capacity may be less in absolute magnitude than the Active Interconnector Unit Export Capacity Holding.
- 5.52 Intentionally blank.
- 5.52A Intentionally blank.
- 5.53 The Maximum Interconnector Unit Import Capacity may be less than the Active Interconnector Unit Import Capacity Holding.
- 5.54 The Price Quantity Pairs for each Interconnector Unit in each Trading Period apply within the range set by the Maximum Interconnector Unit Import Capacity and the Maximum Interconnector Unit Export Capacity.
- 5.55 In the event that no valid Commercial Offer Data is submitted for an Interconnector Unit for a Trading Period in accordance with the Code, the Maximum Interconnector Unit Import Capacity and Maximum Interconnector Unit Export Capacity for the relevant Unit shall be set equal to zero for that Trading Period.

Interconnector Unit Nominations and Modified Interconnector Unit Nominations

- 5.56 For each Trading Day, the Market Operator shall by 11:00 on the day prior to the start of the Trading Day determine Interconnector Unit Nominations for each Interconnector Unit from the Ex-Ante Indicative MSP Software Run based on the Active Interconnector Unit Capacity Holding and Commercial Offer Data. In calculating the Interconnector Unit Nominations, the Ramp Rate for each Interconnector Unit will be set to a value of 99999.9 MW/min.
- 5.56A The Interconnector Unit Nominations shall be calculated by the Market Operator such that the aggregate of the Ramp Rates for all Interconnector Units on any Interconnector that is implied by the Interconnector Unit Nominations does not exceed the Aggregate Interconnector Ramp Rate for that Interconnector for all Trading Periods
- 5.57 Based on the Interconnector Unit Nominations, the Market Operator shall calculate Modified Interconnector Unit Nominations in accordance with Agreed Procedure 2 "Interconnector Unit Capacity Right Calculations and Dispatch Notifications". These shall be calculated by the Market Operator such that the Modified Interconnector User Nominations, when considered in aggregate across any Interconnector, are consistent with the technical elements of the Interconnector Registration Data for that Interconnector at all times.
- 5.58 For each Trading Day, the Market Operator shall by 12:00 on the day prior to the start of the Trading Day submit to each Interconnector User the Modified Interconnector Unit Nominations in respect of its Interconnector Units.
- 5.58A For each Trading Day, the Market Operator shall calculate Aggregate Modified Interconnector Unit Nominations for each Interconnector for each Trading Period, and by 12:00 on the day prior to the start of the Trading Day shall submit the Aggregate Modified Interconnector Unit Nomination Data Transaction to the relevant System Operator.

Technical Failures on an Interconnector

- 5.59 In the event of a technical failure on an Interconnector which causes a reduction in the magnitude of the Available Transfer Capacity (this includes reductions in the absolute magnitude of the Maximum Import Available Transfer Capacity and/or the Maximum Export Available Transfer Capacity) after the time of submission of the Active Interconnector Unit Capacity Holding Data stated in paragraph 5.38, the procedures detailed in Agreed Procedure 2 “Interconnector Unit Capacity Right Calculation and Dispatch Notification” shall be followed.
- 5.60 Where the event described in paragraph 5.59 occurs, then the Market Operator shall recalculate and re-issue the Modified Interconnector Unit Nominations to each Interconnector User for each of their Interconnector Units as soon as possible.
- 5.61 For the avoidance of doubt, each Interconnector User will be responsible for any consequent alteration to the position of its Interconnector Unit(s) in any market outside of the Pool.
- 5.61A In the case of the event described in paragraph 5.59, then the Market Operator shall recalculate the Aggregate Modified Interconnector Unit Nominations and the Market Operator shall re-issue the Aggregate Modified Interconnector Unit Nominations Data Transaction to the System Operator as soon as possible.

SO Interconnector Trades

- 5.62 Subject to commercial agreement, the relevant System Operator which is the Participant in respect of an Interconnector Residual Capacity Unit shall be entitled under the terms of the Code to make SO Interconnector Trades across the relevant Interconnector in either direction, using any available interconnector capacity which is not allocated to Interconnector Users under the aggregate of the prevailing Modified Interconnector Unit Nominations.
- 5.63 Any SO Interconnector Trades that are conducted by the System Operator must be conducted after Gate Closure and after receipt by the relevant System Operator of the Aggregate Modified Interconnector Unit Nomination Data Transaction.
- 5.63A For each Interconnector I in each Trading Period h , the relevant System Operator shall submit data for each Trading Period in the Optimisation Time Horizon to the Market Operator no later than 14:00 on the day following the Trading Day of the relevant Trading Period as follows:
1. SO Interconnector Import Price (SIIP $_{Ih}$) which is the volume-weighted average price for each Trading Period for SO Interconnector Trades which are for import to the Pool (or zero if there are no such trades);
 2. SO Interconnector Export Price (SIEP $_{Ih}$) which is the volume-weighted average price for each Trading Period for SO Interconnector Trades which are for export from the Pool (or zero if there are no such trades);
 3. SO Interconnector Import Quantity (SIQ $_{Ih}$) which is the time-weighted average quantity for each Trading Period (expressed as a positive number in MW) of SO Interconnector Trades which

are for import to the Pool (or zero if there are no such trades);
and

4. SO Interconnector Export Quantity (SIEQ_h) which is the time-weighted average quantity for each Trading Period (expressed as a negative number in MW) of SO Interconnector Trades which are for export from the Pool (or zero if there are no such trades).

5.64 Agreed Procedure 2 “Interconnector Unit Capacity Right Calculations and Dispatch Notifications” shall provide that, in the event of a revision to Available Transfer Capacity in accordance with paragraph 5.59, the Modified Interconnector Unit Nominations for each Interconnector Unit shall be revised to the minimum extent necessary, taking no account of any SO Interconnector Trades

Dispatch Quantities

5.65 For each Interconnector Unit *u*, the Dispatch Quantity (DQ_u_h) shall be set equal to the Modified Interconnector Unit Nomination for each Trading Period *h*.

5.66 For each Interconnector Residual Capacity Unit *u'* in each Trading Period *h*, the Dispatch Quantity (DQ_{u'}_h) shall be set equal to the sum of SO Interconnector Export Quantity (SIEQ_h) and the SO Interconnector Import Quantity (SIIQ_h) for that Interconnector in that Trading Period.

5.67 The Dispatch Quantity for the Interconnector Error Unit shall be set equal to zero.

5.68 Intentionally blank.

Actual Availability and Minimum Output

Values for Ex-Ante Indicative MSP Software Runs

5.68A For each Interconnector Unit *u* in each Trading Period *h*, the Actual Availability (AA_u_h) used as an input to each Ex-Ante Indicative MSP Software Run shall be the minimum of the Active Interconnector Unit Import Capacity Holding and the Maximum Interconnector Unit Import Capacity, or zero if either the Active Interconnector Unit Import Capacity Holding or the Maximum Interconnector Unit Import Capacity is equal to zero.

5.68B For each Interconnector Unit *u* in each Trading Period *h*, the Minimum Output (MINOUT_u_h) used as an input to each Ex-Ante Indicative MSP Software Run shall be the minimum in absolute magnitude of the Active Interconnector Unit Export Capacity Holding and the Maximum Interconnector Unit Export Capacity expressed as a negative number, or zero if either the Active Interconnector Unit Export Capacity Holding or the Maximum Interconnector Unit Export Capacity is equal to zero.

Values for Ex-Post Indicative MSP Software Runs and Ex-Post Initial MSP Software Runs

5.69 For each Interconnector Unit *u* in each Trading Period *h*, the Actual Availability (AA_u_h) used as an input to each Ex-Post Indicative MSP Software Run and each Ex-Post Initial MSP Software Run is calculated as follows:

if $DQ_{uh} \geq 0$ *then*
 $AA_{uh} = DQ_{uh}$

else

$AA_{uh} = 0$

Where:

1. DQ_{uh} is the Dispatch Quantity for Interconnector Unit u in Trading Period h

- 5.70 For each Interconnector Unit u in each Trading Period h , the Minimum Output ($MINOUT_{uh}$) used as an input to each Ex-Post Indicative MSP Software Run and each Ex-Post Initial MSP Software Run is calculated as follows:

if $DQ_{uh} \geq 0$ *then*

$MINOUT_{uh} = 0$

else

$MINOUT_{uh} = DQ_{uh}$

Where:

1. DQ_{uh} is the Dispatch Quantity for Interconnector Unit u in Trading Period h

Market Schedule Quantities

- 5.71 Each Interconnector Unit u shall be included in the MSP Software as a Predictable Price Maker Generator Unit.
- 5.72 The Market Schedule Quantity (MSQ_{uh}) for each Interconnector Unit u in Trading Period h shall be calculated using the MSP Software. In the calculation of the Market Schedule Quantity values, (MSQ_{uh}), the Ramp Rate for each Interconnector Unit will be set to a value of 99999.9 MW/min.
- 5.72A The Market Operator shall calculate the Market Schedule Quantities such that the aggregate of the Ramp Rates for all Interconnector Units on any Interconnector that is implied by the Interconnector Unit Nominations does not exceed the Aggregate Interconnector Ramp Rate for that Interconnector at any time.
- 5.73 The Market Schedule Quantity ($MSQ_{u'h}$) for each Interconnector Residual Capacity Unit u' in Trading Period h shall be set equal to zero.
- 5.74 The Market Schedule Quantity ($MSQ_{u''h}$) for each Interconnector Error Unit u'' in Trading Period h shall be set equal to zero.
- 5.75 Intentionally blank.

Metered Quantities

- 5.76 The Metered Generation (MG_{uh}) for each Interconnector Unit u and for each Interconnector Residual Capacity Unit u' ($MG_{u'h}$) in each Trading Period h is calculated as follows:

$$MG_{uh} = DQ_{uh} \times TPD$$

$$MG_{u'h} = DQ_{u'h} \times TPD$$

Where

1. DQ_{uh} is the Dispatch Quantity for Interconnector Unit u in Trading Period h
2. $DQ_{u'h}$ is the Dispatch Quantity for the Interconnector Residual Capacity Unit u' in Trading Period h
3. TPD is the Trading Period Duration

5.77 The Metered Generation ($MG_{u''h}$) for each Interconnector Error Unit u'' in each Trading Period h is calculated as follows:

$$MG_{u''h} = IMG_{lh} - \left(\sum_{u \text{ in } l} DQ_{uh} + DQ_{u'h} \right) \times TPD$$

Where

1. IMG_{lh} is the Interconnector Metered Generation for Interconnector l in Trading Period h
2. $\sum_{u \text{ in } l} DQ_{uh}$ is the sum of the Dispatch Quantities for each Interconnector Unit u within each Interconnector l in Trading Period h
3. $DQ_{u'h}$ is the Dispatch Quantity for the Interconnector Residual Capacity Unit u' in Trading Period h
4. TPD is the Trading Period Duration

5.78 Intentionally blank.

Interconnector Capacity Payments

5.79 Intentionally blank.

5.80 The Eligible Availability (EA_{uh}) used to determine Capacity Payments for each Interconnector Unit u in each Trading Period h will be equal to the Dispatch Quantity (DQ_{uh}).

5.81 The Eligible Availability ($EA_{u'h}$) for each Interconnector Residual Capacity Unit u' in each Trading Period h will be equal to the Dispatch Quantity ($DQ_{u'h}$).

5.82 The Eligible Availability ($EA_{u''h}$) for the Interconnector Error Unit u'' shall be set as follows:

$$EA_{u''h} = \frac{MG_{u''h}}{TPD}$$

Where

1. MGU_u^h is Metered Generation for Interconnector Error Unit u in Trading Period h
2. TPD is the Trading Period Duration

Settlement

- 5.83 Following calculation of the values for E_{Auh} , MSQ_{uh} , DQ_{uh} and MG_{uh} as above, Settlement for each Interconnector Unit, Interconnector Residual Capacity Unit and Interconnector Error Unit will otherwise be conducted in accordance with Section 4.

ENERGY LIMITED GENERATOR UNITS

General

- 5.83A Save as provided in paragraph 5.84, the relevant Participant shall ensure that a Generator Unit is not categorised as an Energy Limited Generator Unit, and that the additional Technical Offer Data Records listed in paragraph 5.85 are not submitted in relation to it.
- 5.84 A Hydro-electric Generator Unit shall be categorised as an Energy Limited Generator Unit if it is:
1. subject to a physical Energy Limit; and
 2. a Price Maker Generator Unit
- 5.84B For the purposes of the Code, an Energy Limit may only apply to a single Generator Unit and Participants shall not submit any data in relation to any Energy Limit that would or may apply to more than a single Generator Unit.

Offering and Scheduling

- 5.85 Participants shall submit additional Data Records for each Energy Limited Generator Unit for each Trading Day, as part of their Technical Offer Data. Such Data Records shall be used within the MSP Software to calculate the Market Schedule Quantity for the Energy Limited Generator Unit. These parameters are:
1. the Energy Limit;
 2. the Energy Limit Start;
 3. the Energy Limit Stop; and
 4. the Energy Limit Factor.
- 5.86 The relevant Participant shall ensure that, in respect of its Energy Limited Generator, the Energy Limit (in MWh) shall not exceed the total energy that the plant is physically capable of generating during the Energy Limit Period.
- 5.86A In accordance with the relevant Grid Code, a System Operator may accept a revised declaration of the Energy Limit of an Energy Limited Generator Unit from the plant operator for operational purposes. In this event, the relevant System Operator shall submit the revised Energy Limit to the Market Operator in accordance with Appendix E, and this will replace the Energy Limit submitted by the Participant as part of its Technical Offer Data.

- 5.86B For each Trading Day, the Energy Limit Factor shall be multiplied by the Energy Limit to give a value which shall be used by the Market Operator in the MSP Software to limit the total Market Schedule Quantity of the relevant Energy Limited Generator Unit in the set of Trading Periods that fall within the Ending Overlap Optimisation Period.
- 5.86C The relevant Participant shall submit an Energy Limit Factor of 0.25 for each Energy Limited Generator Unit.
- 5.87 The Market Schedule Quantity for each Energy Limited Generator Unit shall be as determined by the MSP Software based on the Technical and Commercial Offer Data of the Energy Limited Generator Unit, including the Energy Limit, the Energy Limit Period and the Energy Limit Factor, and shall be Physically Feasible.
- 5.88 Subject to the physical capability of the plant, the Energy Limit used in the Ex-Post Initial MSP Software Runs and in Settlement shall be the greater of:
1. either the Energy Limit for the Energy Limited Generator Unit u submitted as part of its Technical Offer Data or the re-submitted Energy Limit for the Energy Limited Generator Unit u submitted by the relevant System Operator in accordance with Appendix E, as appropriate for the relevant MSP Software Run; and
 2. the sum of the Actual Output values (AO_{uh}) in each Trading Period h in the Trading Day for the Energy Limited Generator Unit u.

and the derivation of the values of Energy Limit used in Ex-Post Indicative MSP Software Runs, Ex-Ante Indicative MSP Software Runs and Ex-Post Indicative Settlement are detailed within Appendix N.

- 5.89 Intentionally blank.

Capacity Payments

- 5.90 The Eligible Availability of each Energy Limited Generator Unit in each Trading Period shall be determined in accordance with the calculations set out below.
- 5.90A The Interim Eligible Availability (IEA_{uh}) for each Energy Limited Generator Unit u in each Trading Period h other than those Trading Periods referred to in 5.90A1 and 5.90A2 shall be determined according to the following procedure:

Given λ_h and $I\phi_h$, select values of IEA_{uh} to maximise:

$$\sum_{h \text{ in } t} \left[IEA_{uh} \times \left\{ \left(\frac{VCPWFh \times CPVSc}{(VCPWFh \times CPVSc) + (IECPWFh \times CPESc)} \right) \times (\lambda_h) \right. \right. \\ \left. \left. + \left(\frac{IECPWFh \times CPESc}{(VCPWFh \times CPVSc) + (IECPWFh \times CPESc)} \right) \times (I\phi_h) \right\} \right]$$

subject to the following conditions:

1. $\sum_{h \text{ in } t} IEA_{uh} \leq \left(\frac{SEL_{ut}}{TPD} \right)$

$$2. \quad \forall h : IEA_{uh} \geq \text{Max} \{MSQ_{uh}, 0\}$$

$$3. \quad \forall h : IEA_{uh} \leq AP_{uh}$$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. IECPWF_h is the Interim Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. Iφ_h is the Interim Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. SEL_{ut} is the Accepted Energy Limit for Energy Limited Generator Unit u in Trading Day t expressed in terms of generation, amended in accordance with paragraphs 5.86A or 5.88 as appropriate
8. TPD is the Trading Period Duration
9. MSQ_{uh} is the Market Schedule Quantity for Energy Limited Generator Unit u in Trading Period h
10. AP_{uh} is the Availability Profile for Energy Limited Generator Unit u in Trading Period h
11. $\sum_{h \text{ in } t}$ is a summation over all Trading Periods h in Trading Day t

5.90A1 The Interim Eligible Availability (IEA_{uh}) for each Energy Limited Generator Unit u in each Trading Period h in the period commencing at the start of the first Trading Period in each Capacity Period c and ending at the end of the last Trading Period of the first Trading Day t in each Capacity Period shall be determined according to the following procedure:

Given λ_h and Iφ_h, select values of IEA_{uh} to maximise

$$\sum_{h=a}^{h=b} IEA_{uh} \times \left\{ \left(\frac{VCPWF_h \times CPVSc}{(VCPWF_h \times CPVSc) + (IECPWF_h \times CPESc)} \right) \times (\lambda h) \right. \\ \left. + \left(\frac{IECPWF_h \times CPESc}{(VCPWF_h \times CPVSc) + (IECPWF_h \times CPESc)} \right) \times (I\phi h) \right\}$$

subject to the following conditions:

1. $\sum_{h=a}^{h=b} IEA_{uh} \leq \left(\frac{SEL_{ut}}{TPD} \right) + \left\{ \left(\frac{SEL_{ut} - 1}{TPD} \right) \times 0.25 \right\}$
2. $\forall h : IEA_{uh} \geq \text{Max} \{MSQ_{uh}, 0\}$
3. $\forall h : IEA_{uh} \leq AP_{uh}$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. IECPWF_h is the Interim Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. Iφ_h is the Interim Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. SEL_{ut} is the Accepted Energy Limit for Energy Limited Generator Unit u in Trading Day t expressed in terms of generation, amended in accordance with paragraphs 5.86A or 5.88 as appropriate
8. SEL_{ut-1} is the Accepted Energy Limit for Energy Limited Generator Unit u in Trading Day t-1 expressed in terms of generation, amended in accordance with paragraphs 5.86A or 5.88 as appropriate
9. TPD is the Trading Period Duration

10. MSQ_{uh} is the Market Schedule Quantity for Energy Limited Generator Unit u in Trading Period h
11. AP_{uh} is the Availability Profile for Energy Limited Generator Unit u in Trading Period h
12. $\sum_{h=a}^{h=b}$ is a summation over all Trading Periods h in the range a to b, where a is the first Trading Period in each Capacity Period c and b is the last Trading Period in the first Trading Day t to commence in each Capacity Period.

5.90A2 The Interim Eligible Availability (IEA_{uh}) for each Energy Limited Generator Unit u in each Trading Period h in the last Trading Day commencing in each Capacity Period c, where each such Trading Period lies within such Capacity Period c shall be determined according to the following procedure:

Given λ_h and $I\phi_h$, select values of IEA_{uh} to maximise

$$\sum_{h=a}^{h=b} IEA_{uh} \times \left\{ \left(\frac{VCPWF_h \times CPVSc}{(VCPWF_h \times CPVSc) + (IECPWF_h \times CPESc)} \right) \times (\lambda_h) + \left(\frac{IECPWF_h \times CPESc}{(VCPWF_h \times CPVSc) + (IECPWF_h \times CPESc)} \right) \times (I\phi_h) \right\}$$

subject to the following conditions:

1. $\sum_{h=a}^{h=b} IEA_{uh} \leq \left(\frac{SEL_{ut}}{TPD} \right) \times 0.75$
2. $\forall h : IEA_{uh} \geq \text{Max} \{MSQ_{uh}, 0\}$
3. $\forall h : IEA_{uh} \leq AP_{uh}$

Where:

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. IECPWF_h is the Interim Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M

6. λh is the Interim Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. SEL_{ut} is the Accepted Energy Limit for Energy Limited Generator Unit u in Trading Day t expressed in terms of generation, amended in accordance with paragraphs 5.86A or 5.88 as appropriate
8. TPD is the Trading Period Duration
9. MSQ_{uh} is the Market Schedule Quantity for Energy Limited Generator Unit u in Trading Period h
10. AP_{uh} is the Availability Profile for Energy Limited Generator Unit u in Trading Period h
11. $\sum_{h=a}^{h=b}$ is a summation over all Trading Periods h in the range a to b , where a is the first Trading Period in the last Trading Day t to commence in each Capacity Period c and b is the last Trading Period in each Capacity Period c .

5.90B The Eligible Availability (EA_{uh}) for each Energy Limited Generator Unit u for each Trading Period h other than those Trading Periods referred to in 5.90B1 and 5.90B2 shall be determined according to the following procedure:

Given λh and ϕh , select values of EA_{uh} to maximise

$$\sum_{h \text{ in } t} \left[EA_{uh} \times \left\{ \left(\frac{VCPWFh \times CPVSc}{(VCPWFh \times CPVSc) + (ECPWFh \times CPESc)} \right) \times (\lambda h) \right. \right. \\ \left. \left. + \left(\frac{ECPWFh \times CPESc}{(VCPWFh \times CPVSc) + (ECPWFh \times CPESc)} \right) \times (\phi h) \right\} \right]$$

subject to the following conditions:

1. $\sum_{h \text{ in } t} EA_{uh} \leq \left(\frac{SEL_{ut}}{TPD} \right)$
2. $\forall h : EA_{uh} \geq \text{Max} \{MSQ_{uh}, 0\}$
3. $\forall h : EA_{uh} \leq AP_{uh}$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. ECPWF_h is the Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. φ_h is the Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. SEL_{ut} is the Accepted Energy Limit for Energy Limited Generator Unit u in Trading Day t expressed in terms of generation, amended in accordance with paragraphs 5.86A or 5.88 as appropriate
8. TPD is the Trading Period Duration;
9. MSQ_{uh} is the Market Schedule Quantity for Energy Limited Generator Unit u in Trading Period h
10. AP_{uh} is the Availability Profile for Energy Limited Generator Unit u in Trading Period h
11. $\sum_{h \in t}$ is a summation over all Trading Periods h in Trading Day t

5.90B1 The Eligible Availability (EA_{uh}) for each Energy Limited Generator Unit u for each Trading Period h in the period commencing at the start of the first Trading Period in each Capacity Period c and ending at the end of the last Trading Period of the first Trading Day t in each Capacity Period shall be determined according to the following procedure:

Given λ_h and φ_h, select values of EA_{uh} to maximise

$$\sum_{h=a}^{h=b} EA_{uh} \times \left[\left(\frac{VCPWF_h \times CPVSc}{(VCPWF_h \times CPVSc) + (ECPWF_h \times CPESc)} \right) \times (\lambda_h) \right] + \left[\left(\frac{ECPWF_h \times CPESc}{(VCPWF_h \times CPVSc) + (ECPWF_h \times CPESc)} \right) \times (\phi_h) \right]$$

subject to the following conditions:

1.
$$\sum_{h=a}^{h=b} EA_{uh} \leq \left(\frac{SEL_{ut}}{TPD} \right) + \left\{ \left(\frac{SEL_{ut} - 1}{TPD} \right) \times 0.25 \right\}$$
2. $\forall h : EA_{uh} \geq \text{Max} \{MSQ_{uh}, 0\}$
3. $\forall h : EA_{uh} \leq AP_{uh}$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. ECPWF_h is the Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. φ_h is the Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. SEL_{ut} is the Accepted Energy Limit for Energy Limited Generator Unit u in Trading Day t expressed in terms of generation, amended in accordance with paragraphs 5.86A or 5.88 as appropriate
8. SEL_{ut-1} is the Accepted Energy Limit for Energy Limited Generator Unit u in Trading Day t-1 expressed in terms of generation, amended in accordance with paragraphs 5.86A or 5.88 as appropriate
9. TPD is the Trading Period Duration
10. MSQ_{uh} is the Market Schedule Quantity for Energy Limited Generator Unit u in Trading Period h
11. AP_{uh} is the Availability Profile for Energy Limited Generator Unit u in Trading Period h

12. $\sum_{h=a}^{h=b}$ is a summation over all Trading Periods h in the range a to b, where a is the first Trading Period in each Capacity Period c and b is the last Trading Period in the first Trading Day t to commence in each Capacity Period.

5.90B2 The Eligible Availability (EA_{uh}) for each Energy Limited Generator Unit u in each Trading Period h in the last Trading Day commencing in each Capacity Period c, where each such Trading Period lies within such Capacity Period c shall be determined according to the following procedure:

Given λ_h and ϕ_h , select values of EA_{uh} to maximise

$$\sum_{h=a}^{h=b} EA_{uh} \times \left[\left(\frac{VCPWFh \times CPVSc}{(VCPWFh \times CPVSc) + (ECPWFh \times CPESc)} \right) \times (\lambda_h) + \left(\frac{ECPWFh \times CPESc}{(VCPWFh \times CPVSc) + (ECPWFh \times CPESc)} \right) \times (\phi_h) \right]$$

subject to the following conditions:

1. $\sum_{h=a}^{h=b} EA_{uh} \leq \left(\frac{SEL_{ut}}{TPD} \right) \times 0.75$
2. $\sum_{h=a}^{h=b} EA_{uh} \leq \left(\frac{SEL_{ut}}{TPD} \right) \times 0.75$
3. $\forall h : EA_{uh} \leq AP_{uh}$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. ECPWF_h is the Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. ϕ_h is the Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M

7. SELut is the Accepted Energy Limit for Energy Limited Generator Unit u in Trading Day t expressed in terms of generation, amended in accordance with paragraphs 5.86A or 5.88 as appropriate
8. TPD is the Trading Period Duration
9. MSQuh is the Market Schedule Quantity for Energy Limited Generator Unit u in Trading Period h
10. APuh is the Availability Profile for Energy Limited Generator Unit u in Trading Period h
11. $\sum_{h=a}^{h=b}$ is a summation over all Trading Periods h in the range a to b, where a is the first Trading Period in the last Trading Day t to commence in each Capacity Period c and b is the last Trading Period in each Capacity Period c.

PUMPED STORAGE

General

- 5.91 Intentionally blank.
- 5.92 Each Pumped Storage Unit shall be settled as a Generator Unit irrespective of whether its net output in any Trading Period is positive or negative.
- 5.93 The relevant Participant shall not register any Pumped Storage Unit as part of any Trading Site.
- 5.94 Pumped Storage Units shall be classified as Predictable Price Maker Generator Units.

Offering and Scheduling

- 5.95 Notwithstanding this classification, the relevant Participant shall submit Price Quantity Pairs, Start Up Costs and No Load Costs for Pumped Storage Units, including Default Data, in all cases equal to zero..
- 5.96 Intentionally blank..
- 5.97 Each Participant shall submit additional Data Records in the Commercial Offer Data and Technical Offer Data, in respect of each of its Pumped Storage Units. These additional Data Records are:

Commercial Offer Data

1. Target Reservoir Level at the end of the Trading Day;
2. Pumped Storage Cycle Efficiency (PSCEut), submitted as a single value for each Trading Day to apply to all Trading Periods h within that Trading Day t;

Technical Offer Data

3. Target Reservoir Level Percentage;
 4. Maximum Storage Capacity (PSMAXLut) expressed in terms of generation (MWh) for each Pumped Storage Unit u within Trading Day t; and
 5. Minimum Storage Capacity (PSMINLut) expressed in terms of generation (MWh) for each Pumped Storage Unit u within Trading Day t.
- 5.97A The relevant Participant shall ensure that values of the Forecast Minimum Output Profile submitted as part of Technical Offer Data shall be equal to the expected pumping capability for Pumped Storage Unit u in Trading Period h.
- 5.97B The relevant Participant shall ensure that values of the Forecast Availability Profile submitted as part of Technical Offer Data shall be equal to the expected generation availability for Pumped Storage Unit u in Trading Period h.
- 5.97C For each run of the MSP Software, the Target Reservoir Level shall be used as a lower limit for the reservoir level at the end of the Trading Day and the MSP Software shall (where feasible) schedule each Pumped Storage Unit such that the reservoir level at the end of the Trading Day is greater than or equal to the submitted Target Reservoir Level.
- 5.97D For each run of the MSP Software, the Target Reservoir Level Percentage shall be multiplied by the Target Reservoir Level to derive a lower limit for the reservoir level at the end of the Optimisation Time Horizon and the MSP Software shall (where feasible) schedule each Pumped Storage Unit such that the reservoir level at the end of the Optimisation Time Horizon is greater than or equal to the resultant reservoir level.
- 5.97D1 The relevant Participant shall ensure that by Gate Closure, the values of the Target Reservoir Level for each Trading Day shall be less than or equal to the relevant values of Maximum Storage Capacity.
- 5.97E The relevant Participant shall submit a Target Reservoir Level Percentage of 50% for each Pumped Storage Unit.
- 5.97F Within the Technical Offer Data or Generator Unit Technical Characteristics for each Pumped Storage Unit, any submitted value for Minimum Stable Generation shall not be used within the MSP Software.
- 5.97G Within the Technical Offer Data or Generator Unit Technical Characteristics for each Pumped Storage Unit, the submitted values of Ramp Rate shall be applied within the MSP Software only to levels of Output that are positive.
- 5.97H For all Pumped Storage Units which utilise the same reservoir, for any Trading Day, the relevant Participant shall ensure that by Gate Closure the submitted values of Maximum Storage Capacity for that Trading Day shall be equal.
- 5.97I For all Pumped Storage Units which utilise the same reservoir for any Trading Day, the relevant Participant shall ensure that by Gate Closure the submitted values of Minimum Storage Capacity for that Trading Day shall be equal.

5.97J For all Pumped Storage Units which utilise the same reservoir for any Trading Day, the relevant Participant shall ensure that by Gate Closure the submitted values of Target Reservoir Level for that Trading Day shall be equal.

5.98 For each run of the MSP Software, the reservoir level at the start of the Optimisation Time Horizon will be taken from the results referred to at the same point in time that were produced by the Preceding MSP Run.

Energy Settlement

5.99 The Market Schedule Quantities will be positive when the Pumped Storage Unit is scheduled to generate and negative when the Pumped Storage Unit is scheduled to pump.

Constraint Payments and Charges

5.100 There shall be no Constraint Payments in respect of Pumped Storage Units.

5.101 Each Pumped Storage Unit u shall be subject to Uninstructed Imbalances, and for these purposes the value of Dispatch Offer Price for each Pumped Storage Unit u in each Trading Period h (DOPuh) shall be equal to the System Marginal Price (SMPh).

Capacity Payments for Pumped Storage Units

5.102 Capacity Payments for each Pumped Storage Unit shall be based on its Eligible Availability in each Trading Period, adjusted for losses, and determined in accordance with the algebraic formulation set out below and in Section 4.

5.103 The Interim Eligible Generation Availability (IEGAuh) for each Pumped Storage Unit u in each Trading Period h other than those Trading Periods referred to in 5.103A1 and 5.103A2 shall be determined according to the following procedure:

Given λh and $I\phi h$, select values of IEGAuh to maximise

$$\sum_{h \text{ in } t} \left[IEGAuh \times \left\{ \left(\frac{VCPWFh \times CPVSc}{(VCPWFh \times CPVSc) + (IECPWFh \times CPESc)} \right) \times (\lambda h) \right. \right. \\ \left. \left. + \left(\frac{IECPWFh \times CPESc}{(VCPWFh \times CPVSc) + (IECPWFh \times CPESc)} \right) \times (I\phi h) \right\} \right]$$

subject to the following conditions:

1. $\sum_{h \text{ in } t} IEGAuh \leq \text{Max} \left\{ \left(\sum_{h \text{ in } t} (\text{Max} \{MSQuh, 0\}) \right), \left(\frac{PSMAXLut - PSMINLut}{TPD} \right) \right\}$
2. $\forall h : IEGAuh \geq \text{Max} \{MSQuh, 0\}$
3. $\forall h : IEGAuh \leq APuh$

Where:

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. IECPWF_h is the Interim Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. Iφ_h is the Interim Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. MSQ_{uh} is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h
8. PSMAXL_{ut} is the Maximum Storage Capacity for Pumped Storage Unit u in Trading Day t
9. PSMINL_{ut} is the Minimum Storage Capacity for Pumped Storage Unit u in Trading Day t
10. TPD is the Trading Period Duration
11. AP_{uh} is the Availability Profile for Pumped Storage Unit u in Trading Period h
12. $\sum_{h \in t}$ is a summation over all Trading Periods h in Trading Day t

5.103A1 The Interim Eligible Generation Availability (IEGA_{uh}) for each Pumped Storage Unit u in each Trading Period h in the period commencing at the start of the first Trading Period in each Capacity Period c and ending at the end of the last Trading Period of the first Trading Day t in each Capacity Period shall be determined according to the following procedure:

Given λ_h and Iφ_h, select values of IEGA_{uh} to maximise

$$\sum_{h=a}^{h=b} IEGA_{uh} \times \left\{ \left(\frac{VCPWF_h \times CPVSc}{(VCPWF_h \times CPVSc) + (IECPWF_h \times CPESc)} \right) \times (\lambda_h) + \left(\frac{IECPWF_h \times CPESc}{(VCPWF_h \times CPVSc) + (IECPWF_h \times CPESc)} \right) \times (I\phi_h) \right\}$$

subject to the following conditions:

1.
$$\sum_{h=a}^{h=b} IEGAu_h \leq \text{Max} \left\{ \left(\sum_{h=a}^{h=b} (\text{Max} \{MSQu_h, 0\}) \right) \left(\frac{PSMAXLut - PSMINLut}{TPD} \right) + \left(\frac{PSMAXLut-1 - PSMINLut-1}{TPD} \right) \times 0.25 \right\}$$
2.
$$\forall h : IEGAu_h \geq \text{Max} \{MSQu_h, 0\}$$
3.
$$\forall h : IEGAu_h \leq APu_h$$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. IECPWF_h is the Interim Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. λ_{ph} is the Interim Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. MSQu_h is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h
8. PSMAXLut is the Maximum Storage Capacity for Pumped Storage Unit u in Trading Day t
9. PSMINLut is the Minimum Storage Capacity for Pumped Storage Unit u in Trading Day t
10. PSMAXLut-1 is the Maximum Storage Capacity for Pumped Storage Unit u in Trading Day t-1
11. PSMINLut-1 is the Minimum Storage Capacity for Pumped Storage Unit u in Trading Day t-1
12. TPD is the Trading Period Duration
13. APu_h is the Availability Profile for Pumped Storage Unit u in Trading Period h

14. $\sum_{h=a}^{h=b}$ is a summation over all Trading Periods h in the range a to b, where a is the first Trading Period in each Capacity Period c and b is the last Trading Period in the first Trading Day t to commence in each Capacity Period.

5.103A2 The Interim Eligible Generation Availability (IEGA_{uh}) for each Pumped Storage Unit u in each Trading Period h in the last Trading Day commencing in each Capacity Period c, where each such Trading Period lies within such Capacity Period c shall be determined according to the following procedure:

Given λh and $I\phi h$, select values of IEGA_{uh} to maximise

$$\sum_{h=a}^{h=b} \left[\text{IEGA}_{uh} \times \left\{ \left(\frac{VCPWFh \times CPVSc}{(VCPWFh \times CPVSc) + (IECPWFh \times CPESc)} \right) \times (\lambda h) \right. \right. \\ \left. \left. + \left(\frac{IECPWFh \times CPESc}{(VCPWFh \times CPVSc) + (IECPWFh \times CPESc)} \right) \times (I\phi h) \right\} \right]$$

subject to the following conditions:

1. $\sum_{h=a}^{h=b} \text{IEGA}_{uh} \leq \text{Max} \left\{ \left(\sum_{h=a}^{h=b} (\text{Max} \{MSQ_{uh}, 0\}) \right) \left(\frac{PSMAXLut - PSMINLut}{TPD} \right) \times 0.75 \right\}$
2. $\forall h : \text{IEGA}_{uh} \geq \text{Max} \{MSQ_{uh}, 0\}$
3. $\forall h : \text{IEGA}_{uh} \leq AP_{uh}$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. IECPWF_h is the Interim Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λh is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. $I\phi h$ is the Interim Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. MSQ_{uh} is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h
8. PSMAXLut is the Maximum Storage Capacity for Pumped Storage Unit u in Trading Day t

9. PSMINLut is the Minimum Storage Capacity for Pumped Storage Unit u in Trading Day t
10. TPD is the Trading Period Duration
11. APuh is the Availability Profile for Pumped Storage Unit u in Trading Period h
12. $\sum_{h=a}^{h=b}$ is a summation over all Trading Periods h in the range a to b, where a is the first Trading Period in the last Trading Day t to commence in each Capacity Period c and b is the last Trading Period in each Capacity Period c.

5.103A The Interim Eligible Availability (IEAuh) for Pumped Storage Unit u in each Trading Period h shall be determined according to the following formula:

$$\forall h : IEAuh = IEGAuh + \text{Min}\{MSQuh, 0\}$$

Where

1. MSQuh is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h
2. IEGAuh is the Interim Eligible Generation Availability for Pumped Storage Unit u in Trading Period h

5.104 The Eligible Generation Availability (EGAuh) for each Pumped Storage Unit u in each Trading Period h other than those Trading Periods referred to in 5.104A1 and 5.104A2 shall be determined according to the following procedure:

Given λh and Φh , select values of EGAuh to maximise

$$\sum_{h \text{ in } t} \left[EGAuh \times \left\{ \left(\frac{VCPWFh \times CPVSc}{(VCPWFh \times CPVSc) + (ECPWFh \times CPESc)} \right) \times (\lambda h) \right. \right. \\ \left. \left. + \left(\frac{ECPWFh \times CPESc}{(VCPWFh \times CPVSc) + (ECPWFh \times CPESc)} \right) \times (\phi h) \right\} \right]$$

subject to the following conditions:

1. $\sum_{h \text{ in } t} EGAuh \leq \text{Max} \left\{ \left(\sum_{h \text{ in } t} (\text{Max}\{MSQuh, 0\}) \right), \left(\frac{PSMAXLut - PSMINLut}{TPD} \right) \right\}$
2. $\forall h : EGAuh \geq \text{Max}\{MSQuh, 0\}$
3. $\forall h : EGAuh \leq APuh$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. ECPWF_h is the Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. MSQu_h is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h
6. PSMAXLut is the Maximum Storage Capacity for Pumped Storage Unit u in Trading Day t
7. PSMINLut is the Minimum Storage Capacity for Pumped Storage Unit u in Trading Day t
8. TPD is the Trading Period Duration
9. λ_h is the Loss of Load Probability for Trading Period h determined in accordance with Appendix M and is a value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period
10. φ_h is the Ex-Post Loss of Load Probability for Trading Period h determined in accordance with Appendix M and is a value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period
11. APu_h is the Availability Profile for Pumped Storage Unit u in Trading Period h.
12. $\sum_{h \in t}$ is a summation over all Trading Periods h in Trading Day t

5.104A1 The Eligible Generation Availability (EGA_{uh}) for each Pumped Storage Unit u in each Trading Period h in the period commencing at the start of the first Trading Period in each Capacity Period c and ending at the end of the last Trading Period of the first Trading Day t in each Capacity Period shall be determined according to the following procedure:

Given λ_h and φ_h, select values of EGA_{uh} to maximise

$$\sum_{h=a}^{h=b} EGA_{uh} \times \left\{ \left(\frac{VCPWF_h \times CPVSc}{(VCPWF_h \times CPVSc) + (ECPWF_h \times CPESc)} \right) \times (\lambda_h) \right. \\ \left. + \left(\frac{ECPWF_h \times CPESc}{(VCPWF_h \times CPVSc) + (ECPWF_h \times CPESc)} \right) \times (\phi_h) \right\}$$

subject to the following conditions:

1.
$$\sum_{h=a}^{h=b} EGA_{uh} \leq \text{Max} \left\{ \left(\sum_{h=a}^{h=b} (\text{Max} \{MSQ_{uh}, 0\}) \right) \left(\frac{PSMAX_{Lut} - PSMIN_{Lut}}{TPD} \right) + \left(\frac{PSMAX_{Lut-1} - PSMIN_{Lut-1}}{TPD} \right) \times 0.25 \right\}$$
2. $\forall h : IEGA_{uh} \geq \text{Max} \{MSQ_{uh}, 0\}$
3. $\forall h : IEGA_{uh} \leq AP_{uh}$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. ECPWF_h is the Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. φ_h is the Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. MSQ_{uh} is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h
8. PSMAX_{Lut} is the Maximum Storage Capacity for Pumped Storage Unit u in Trading Day t
9. PSMIN_{Lut} is the Minimum Storage Capacity for Pumped Storage Unit u in Trading Day t
10. PSMAX_{Lut-1} is the Maximum Storage Capacity for Pumped Storage Unit u in Trading Day t-1
11. PSMIN_{Lut-1} is the Minimum Storage Capacity for Pumped Storage Unit u in Trading Day t-1
12. TPD is the Trading Period Duration
13. AP_{uh} is the Availability Profile for Pumped Storage Unit u in Trading Period h
14. $\sum_{h=a}^{h=b}$ is a summation over all Trading Periods h in the range a to b, where a is the first Trading Period in each Capacity Period c and b is the last Trading Period in the first Trading Day t to commence in each Capacity Period.

5.104A2 The Eligible Generation Availability (EGA_{uh}) for each Pumped Storage Unit u in each Trading Period h in the last Trading Day commencing in each Capacity Period c, where each such Trading Period lies within such Capacity Period c shall be determined according to the following procedure:

Given λ_h and ϕ_h , select values of EGA_{uh} to maximise

$$\sum_{h=a}^{h=b} \left[EGA_{uh} \times \left\{ \left(\frac{VCPWF_h \times CPVSc}{(VCPWF_h \times CPVSc) + (ECPWF_h \times CPESc)} \right) \times (\lambda_h) \right. \right. \\ \left. \left. + \left(\frac{ECPWF_h \times CPESc}{(VCPWF_h \times CPVSc) + (ECPWF_h \times CPESc)} \right) \times (\phi_h) \right\} \right]$$

subject to the following conditions

1. $\sum_{h=a}^{h=b} EGA_{uh} \leq \text{Max} \left\{ \left(\sum_{h=a}^{h=b} (\text{Max} \{MSQ_{uh0}\}) \right) \left(\frac{PSMAXLut - PSMINLut}{TPD} \right) \times 0.75 \right\}$
2. $\forall h : IEGA_{uh} \geq \text{Max} \{MSQ_{uh}, 0\}$
3. $\forall h : IEGA_{uh} \leq AP_{uh}$

Where

1. VCPWF_h is the Variable Capacity Payments Weighting Factor in Trading Period h
2. CPVSc is the Capacity Period Variable Sum in Capacity Period c
3. ECPWF_h is the Ex-Post Capacity Payments Weighting Factor in Trading Period h
4. CPESc is the Capacity Period Ex-Post Sum in Capacity Period c
5. λ_h is the Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
6. ϕ_h is the Ex-Post Loss of Load Probability value determined as part of the Capacity Payment calculations to provide a capacity weighting in each Trading Period h and is determined in accordance with Appendix M
7. MSQ_{uh} is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h
8. PSMAXLut is the Maximum Storage Capacity for Pumped Storage Unit u in Trading Day t
9. PSMINLut is the Minimum Storage Capacity for Pumped Storage Unit u in Trading Day t
10. TPD is the Trading Period Duration
11. AP_{uh} is the Availability Profile for Pumped Storage Unit u in Trading Period h
12. $\sum_{h=a}^{h=b}$ is a summation over all Trading Periods h in the range a to b, where a is the first Trading Period in the last Trading Day t to commence in each Capacity Period c and b is the last Trading Period in each Capacity Period c.

5.104A Eligible Availability (EA_{uh}) for each Pumped Storage Unit u in Trading Period h shall be determined according to the following formula:

$$\forall h : EA_{uh} = EGA_{uh} + \text{Min}\{MSQ_{uh}, 0\}$$

Where

1. MSQ_{uh} is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h
2. EGA_{uh} is the Eligible Generation Availability for Pumped Storage Unit u in Trading Period h.

5.105 Intentionally blank.

5.106 Intentionally blank.

5.107 The Pumped Storage Unscheduled Capacity Daily Price (PSUCDP_{ut}) is calculated as follows:

if PSCE_{ut} = 0 then

$$PSUCDP_{ut} = PCAP$$

else

if MSQ_{uh} ≥ 0 ∀ h in Trading Day t then

$$PSUCDP_{ut} = \text{Min}\left\{\left(\frac{SMP_h}{PSCE_{ut}}\right) : \forall h \text{ in Trading Day } t\right\}$$

else

$$PSUCDP_{ut} = \text{Max}\left\{\left(\frac{SMP_h}{PSCE_{ut}}\right) : \forall h \text{ in Trading Day } t \text{ where } MSQ_{uh} < 0\right\}$$

Where

1. PSCE_{ut} is the Pumped Storage Cycle Efficiency for Pumped Storage Unit u for the relevant Trading Period h within Trading Day t
2. PCAP is the Market Price Cap
3. MSQ_{uh} is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h
4. SMP_h is the System Marginal Price in Trading Period h.

5.107A For the purposes of the summation \sum_i within the equation in paragraph

4.85, i is limited to 1, and therefore only a single value of Unscheduled Capacity Offer Price (UCOP_{uhi}) and Unscheduled Capacity Offer Quantity (UCOQ_{uhi}) is required within that equation for each Pumped Storage Unit u in each Trading Period h.

- 5.108 The value of the Unscheduled Capacity Offer Price (UCOP_{uhi}) (where i =1) for each Pumped Storage Unit u for each Trading Period h during Trading Day t is calculated as follows:

$$UCOP_{uhi} = \text{Max}\{SMP_h, PSUCDP_{ut}\} \text{ where } i = 1$$

Where

1. SMP_h is the System Marginal Price in Trading Period h
2. PSUCDP_{ut} is the Pumped Storage Unscheduled Capacity Daily Price for Pumped Storage Unit u in Trading Day t

- 5.109 The value of the Unscheduled Capacity Offer Quantity (UCOQ_{uhi}) (where i = 1) for each Pumped Storage Unit u for each Trading Period h during Trading Day t is calculated as follows:

$$UCOQ_{uhi} = \text{Max}\{(EA_{uh} - MSQ_{uh}), 0\} \text{ where } i = 1$$

Where

1. EA_{uh} is the Eligible Availability for Pumped Storage Unit u in Trading Period h
2. MSQ_{uh} is the Market Schedule Quantity for Pumped Storage Unit u in Trading Period h

PRIORITY DISPATCH

- 5.110 In the event of a Tie-Break, Price Maker Generator Units which have Priority Dispatch for their entire capacity shall take precedence in the allocation of Market Schedule Quantities over other Price Maker Generator Units, in accordance with Appendix N.

AUTOPRODUCERS

General

- 5.111 An Autoproducer Site is a Demand Site where Demand is not solely for the purposes of generation, but which contains one or more Generator Units none of which are Demand Side Units.
- 5.112 The Units which form part of an Autoproducer Site are eligible to be registered as a Trading Site in accordance with the provisions set out in paragraphs 2.44 to 2.48.
- 5.113 Intentionally blank.
- 5.114 If all of the Generator Units which form part of an Autoproducer Site are Autonomous Generator Units, those Generator Units may be registered as a single Autonomous Generator Unit as part of a Trading Site with an Associated Supplier Unit.
- 5.115 Save as provided in paragraph 5.114, each Autoproducer Site must have separate metering for its import energy quantity and export energy quantity. A Party must register Generator Units and Supplier Units separately for the purposes of a Trading Site (including a Netting Generator Unit) where applicable.

- 5.116 The relevant Participant must submit Generator Unit Commercial Offer Data and Technical Offer Data net of Unit Load and independent of the related Demand, in respect of Generation and Demand at an Autoproducer Unit

DEMAND SIDE UNITS

- 5.117 Subject to paragraph 5.120 below, a Party may register a Demand Side Unit associated with a Demand Site or Demand Sites.
- 5.118 A Party is not obliged to register any Demand Side Unit with any Demand Site.
- 5.119 Subject to the terms of the Grid Code, a single Demand Side Unit may be associated with a number of Demand Sites provided that those Demand Sites comprise one single Supplier Unit and that those Demand Sites are within the same Currency Zone. The combined Demand Side Unit shall for all purposes under the Code be treated as a single Demand Side Unit.
- 5.120 To qualify for registration as a Demand Side Unit, a Demand Site must meet and continue to meet each of the following criteria:
1. the Demand Site shall house a final customer or consumer;
 2. the Demand Site shall have the technical and operational capability to deliver Demand Reduction in response to Dispatch Instructions from the System Operator in accordance with the Grid Codes or Distribution Code;
 3. the Demand Site shall have appropriate equipment to permit real-time monitoring of delivery by the System Operator; and
 4. the Demand Site shall have a Maximum Import Capacity and shall not have a Maximum Export Capacity.
- 5.121 For each Demand Side Unit, a Party (or Applicant) shall register as part of a single Trading Site in accordance with the provisions set out in paragraphs 2.44 to 2.48:
1. the Demand Side Unit;
 2. a single Supplier Unit which is a Trading Site Supplier Unit, with which the Demand Reduction is associated;
 3. a Netting Generator Unit; and
 4. no other Unit.
- 5.122 The Netting Generator Unit shall not be associated with any physical meter and shall be classified as an Autonomous Generator Unit in all respects except as set out below.
- 5.123 Each Demand Side Unit shall be classified as a Predictable Price Maker Generator Unit.
- 5.124 Participants shall submit Commercial Offer Data and Technical Offer Data for each of their Demand Side Units in respect of its offered Demand Reduction.
- 5.125 As part of the Technical Offer Data for a Demand Side Unit, the Forecast Availability Profile of each Demand Side Unit at each time is equal to the offered level of Demand Reduction.

- 5.126 The Transmission Loss Adjustment Factor (TLAF_{uh}) for each Demand Side Unit shall be equal to 1.

Offering and Scheduling

- 5.126A Appendix C: Offer Data Transactions lists the required Data Records which must be included in Commercial Offer Data for Demand Side Units. No other Commercial Offer Data Records can be submitted for these Units.
- 5.126B Participants must not submit Commercial Offer Data for a Demand Side Unit which includes No Load Costs or Start Up Costs.
- 5.126C Participants must submit Commercial Offer Data for each Demand Side Unit which includes a single Shut Down Cost.
- 5.126C1 For the purposes of calculations under this Code all values of Start Up Cost (SUC_{uh}) for Demand Side Units *u* shall be taken from the relevant Accepted values of Shut Down Cost for the relevant Trading Period *h*. For the purposes of calculations under this Code all values of No Load Cost (NLC_{uh}) for Demand Side Units *u* shall be zero for all Trading Periods *h*.

Technical Offer Data

- 5.126D Appendix C: Offer Data Transactions lists the required Data Records which must be included within Technical Offer Data for Demand Side Units. No other Technical Offer Data Records shall be submitted for these Units.

Quantities

- 5.127 The Net Demand (ND_v*h*) at the Trading Site Supplier Unit *v* with which the Demand Reduction is associated in Trading Period *h* shall be determined according to the formula below:

$$ND_{vh} = MD_{vh}$$

Where

1. MD_v*h* is the Metered Demand for Trading Site Supplier Unit *v* in Trading Period *h*.

- 5.128 The Market Schedule Quantity at the Netting Generator Unit *u'* for Trading Period *h* is set to equal the negative of the Dispatch Quantity at the Demand Side Unit *u*:

$$MSQu'h = -DQuh .$$

- 5.129 The Dispatch Quantity (DQ_{u'}*h*) and the Metered Generation (MG_{u'}*h*) at the Netting Generator Unit *u'* for Trading Period *h* are calculated as follows:

$$DQu'h = MSQu'h$$

$$MGu'h = MSQu'h \times TPD$$

Where

1. MSQ_{u'}*h* is the Market Schedule Quantity at Netting Generator Unit *u'* for Trading Period *h*
2. TPD is the Trading Period Duration

Compliance with Dispatch Instructions

5.130 Relevant Participants shall deliver Demand Reduction at the Demand Site in accordance with any Dispatch Instruction which is in line with the Outturn Availability and the relevant parts of its Technical Offer Data.

5.131 For each Demand Side Unit u in Trading Period h , the Metered Generation (MG_{uh}) is set to equal the Dispatch Quantity:

$$MG_{uh} = DQ_{uh} \times TPD$$

Where

1. DQ_{uh} is Dispatch Quantity for Generator Unit u in Trading Period h
2. TPD is the Trading Period Duration

5.132 Intentionally blank.

GENERATOR UNITS UNDER TEST

5.133 The relevant System Operator may grant Generator Units the status of Under Test for a limited period under the terms of the relevant Grid Code.

5.133A The Market Operator shall not grant the status of Under Test for the purposes of this Code to Autonomous Generator Units, Pumped Storage Units, Interconnector Units or Interconnector Residual Capacity Units.

5.133B In order for a Generator Unit to apply for Under Test status under this Code, a Participant shall submit a "Generator Unit Under Test Notice" which comprises a Unit Under Test Start Date and a Unit Under Test End Date as specified in Appendix J and in accordance with Agreed Procedure 4 "Data Transaction Submission and Validation". The submission of this data shall constitute an application by the Participant for Under Test status.

5.133C The Market Operator shall award the Generator Unit Under Test status under this Code for the period between the Unit Under Test Start Date and the Unit Under Test End Date, subject to verification with the relevant System Operator that the Generator Unit shall be Under Test under the terms of the relevant Grid Code at all times starting on the Unit Under Test Starting Trading Day and ending on the Unit Under Test Ending Trading Day.

5.134 Intentionally blank.

Commercial Offer Data for Generator Units Under Test

5.135 Relevant Participants shall include a Nomination Profile (as described in paragraphs 5.11-5.13) within their Commercial Offer Data for Generator Units Under Test. The Nominated Quantities within the Nomination Profile shall reflect the desired pattern of operation.

5.136 Participants shall not include within the Commercial Offer Data for Generator Units Under Test, Price Quantity Pairs, Start Up Costs, No Load Costs or Shut Down Costs.

5.136A As part of the Commercial Offer Data for each Trading Day, for each Generator Unit u that is Under Test, the relevant Participant shall submit a

Decremental Price (DECPU_h) for each Trading Period *h*, and each value of Decremental Price so submitted shall be equal to zero.

Testing Tariffs

- 5.137 Intentionally blank.
- 5.137A The relevant System Operator shall make a report to the Regulatory Authorities proposing values for the Testing Tariffs at least four months before the start of the Year. The System Operator's report must set out the justification for the specific values proposed. Such a report may, and shall if so requested by the Regulatory Authorities, include alternative values from those proposed and must set out the arguments for and against such alternatives.
- 5.137A1 Each System Operator shall provide to the Market Operator at least two months prior to the start of each Year or within 5 Working Days of approval by the Regulatory Authorities whichever is the later the System Parameters Data Transaction which comprises a complete set of Testing Tariffs that have been approved by the Regulatory Authorities for each Generator Unit (other than Demand Side Units) that is registered within its Currency Zone, for each Trading Period in the Year.
- 5.137B The Market Operator shall publish the approved value(s) for each parameter on receipt of the Regulatory Authorities' determination and, in any event, at least two months before the start of the Year or within 5 Working Days of receipt of the determination whichever is the later.
- 5.137C The Market Operator may update these tariffs within a Year subject to the prior approval of the Regulatory Authorities.
- 5.138 The Market Operator will publish each Year the schedule of Testing Tariffs and the detailed tariff methodology and periodically in the event that the Tariffs are updated within a Year.

Charges for Generator Units Under Test

- 5.139 Intentionally blank..
- 5.140 The Testing Charge applicable to each Generator Unit Under Test for each Trading Period (TCHARGE_{uh}) is calculated as follows:

$$TCHARGE_{uh} = \text{Max}\{MGLF_{uh}, 0\} \times TTARIFF_{uh}$$

Where

1. TTARIFF_{uh} is the Testing Tariff applicable to Generator Unit Under Test *u* in Trading Period *h*, as set out in the schedule of Testing Tariffs
2. MGLF_{uh} is the Loss-Adjusted Metered Generation for the Generator Unit Under Test *u* for Trading Period *h*

Settlement of Generator Units Under Test

- 5.141 Intentionally blank.
- 5.142 The Market Schedule Quantity for Generator Unit *u* in Trading Period *h* (MSQ_{uh}) shall be determined from the Dispatch Quantity as follows:

$$MSQ_{uh} = DQ_{uh}$$

Where

1. DQ_{uh} is Dispatch Quantity for Generator Unit u in Trading Period h

5.143 The value of Constraint Payments (CONP_{uh}) for each Generator Unit u that is Under Test in a Trading Period h shall be calculated by the Market Operator to be zero.

5.144 For the purposes of Uninstructed Imbalances for Generator Units Under Test as set out in paragraph 4.117, the value of Dispatch Offer Price (DOP_{uh}) is deemed to be equal to System Marginal Price (SMP_h).

5.144A Intentionally blank.

5.145 The Eligible Availability (EA_{uh}) for use in the calculation of Capacity Payments for Generator Units Under Test is calculated as follows:

$$EA_{uh} = \text{Min} \left\{ \frac{MG_{uh}}{TPD}, DQ_{uh} \right\}$$

Where

1. MG_{uh} is Metered Generation for Generator Unit u for Trading Period h
2. TPD is the Trading Period Duration
3. DQ_{uh} is Dispatch Quantity for Generator Unit u for Trading Period h

6. FINANCIAL AND SETTLEMENT

GENERAL

- 6.1A The financial and settlement arrangements set out in this section 6 provide an administratively convenient method of arranging and administering financial settlement on a Settlement Period basis between all Participants in respect of the sale and purchase of electricity within the Pool pursuant to the Code and the Participants and the Market Operator agree to the arrangement of their respective relationships, rights and entitlements necessitated herein accordingly.

Settlement Items

- 6.1 The Market Operator shall carry out or procure settlements in accordance with the Code of the following amounts:
1. Trading Payments due to Participants in respect of their registered Generator Units for each Billing Period;
 2. Trading Charges payable by Participants in respect of their registered Supplier Units for each Billing Period;
 3. Capacity Payments due to Participants in respect of their registered Generator Units for each Capacity Period;
 4. Capacity Charges payable by Participants in respect of their registered Supplier Units for each Capacity Period;
 5. Charges due to or payable by Participants for Currency Cost for the relevant Billing Period;
 6. Charges due to or payable by Participants for Currency Cost for the relevant Capacity Period;
 7. Charges payable by Participants in respect of their registered Generator Units for Unsecured Bad Energy Debt;
 8. Charges due to Participants in respect of their registered Generator Units for Unsecured Bad Capacity Debt;
 9. Settlement Reallocations due to or payable by Participants for each relevant Billing Period;
 10. Settlement Reallocations due to or payable by Participants for each relevant Capacity Period;
 11. Fixed Market Operator Charges payable by Participants in respect of their registered Generator Units and registered Supplier Units for each Year or period to which the Fixed Market Operator Charge relates;

12. Variable Market Operator Charges payable by Participants in respect of their Supplier Units for each Billing Period.

Currency

- 6.2 All Settlement information and cash flows shall be calculated in euro (€).
- 6.3 All Settlements, including Resettlements, will be offered in euro (€) or pounds sterling (£) depending on the Currency Zone of the Participant in respect of its Unit(s).
- 6.4 The Market Operator shall, in relation to each Trading Day, publish a Trading Day Exchange Rate between euro (€) and Pounds Sterling (£) at 08:00 on the preceding Trading Day.
- 6.5 Intentionally blank.
- 6.6 For each Participant using pounds sterling as the Settlement Currency, all Settlement Calculations on a Settlement Day or a Billing Period basis shall be included in Settlement Statements after being converted by the Market Operator to pounds sterling using the relevant Trading Day Exchange Rate.
- 6.6A All data values that are submitted as part of Commercial Offer Data or SO Interconnector Import Price or SO Interconnector Export Price which are expressed in pounds sterling shall be converted by the Market Operator to euro using the relevant Trading Day Exchange Rate, and the resulting euro value shall be used for all calculations within this Code.
- 6.7 For each Participant using pounds sterling as the Settlement Currency, all Settlement calculations on a Capacity Period basis shall be included in Settlement Statements after being converted to pounds sterling using the Annual Capacity Exchange Rate.
- 6.8 The Market Operator shall endeavour to manage the Currency Costs insofar as is practicable within the Pool.
- 6.9 The Currency Costs shall be due to or payable by all Participants in the respective Billing and Capacity Periods in proportion to their gross financial participation in the market as set out in paragraph 6.94 and 6.98.
- 6.9A Intentionally Blank.
- 6.9B Intentionally Blank.
- 6.9C Intentionally Blank.
- 6.9D Intentionally Blank.

Banking Arrangements

- 6.10 Intentionally blank.
- 6.11 Intentionally blank.
- 6.12 Intentionally blank.
- 6.13 Intentionally blank.
- 6.14 Intentionally blank.
- 6.15 Intentionally blank.
- 6.16 Intentionally blank.
- 6.17 Intentionally blank.
- 6.18 Intentionally blank.
- 6.19 Intentionally blank.

- 6.20 Intentionally blank.
- 6.21 Intentionally blank.
- 6.22 Intentionally blank.
- 6.23 Intentionally blank.
- 6.23A Intentionally blank.
- 6.23B The Market Operator shall, through its contract with the SEM Bank, administer the banking services required pursuant to the Code, for Participants.
- 6.23B1 The SEM Bank shall be a bank which must
1. hold a banking licence in Ireland under Section 9 of the Central Bank Act 1971 (Ireland) or be authorised by the FSA to take deposits, under the Banking Act 1987 (Northern Ireland) or be otherwise authorised to provide banking services in Ireland or the United Kingdom; and
- either;
2. be a Clearing Bank in either Jurisdiction with:
 - a long term debt rating of not less than A (Standard & Poors) or A2 (Moody's Investors Service Inc.); or
 - Total Balance Sheet Assets of not less than €1,000 million
- or
- be an international bank that is approved by the relevant regulatory authority and which has a branch in the relevant location (Dublin and/or Belfast) and complies with paragraph 6.136C 2 b.
- 6.23C The Market Operator shall establish and operate in accordance with the Code:
1. a euro SEM Trading Clearing Account at a branch of the SEM Bank in Ireland; and
 2. a pounds sterling SEM Trading Clearing Account at a branch of the SEM Bank in Northern Ireland,
- to and from which all Trading Payments calculated in accordance with the Code are to be made.
- Each SEM Trading Clearing Account shall be an interest bearing account.
- 6.23D The Market Operator shall establish and operate in accordance with the Code:
1. a euro SEM Capacity Clearing Account at a branch of the SEM Bank in Ireland; and
 2. a pounds sterling SEM Capacity Clearing Account at a branch of the SEM Bank in Northern Ireland,
- to and from which all Capacity Payments calculated in accordance with the Code are to be made.
- Each SEM Capacity Clearing Account shall be an interest bearing account.
- Provision of Cash Collateral
- 6.23E1 A Participant may at any time provide a cash deposit as part of its Required Credit Cover as permitted pursuant to paragraph 6.136B. Where a

Participant decides to provide such a cash deposit, then the Participant shall establish and maintain an SEM Collateral Reserve Account with the SEM Bank in each Currency Zone in which the Participant has a registered Unit as applicable. Each SEM Collateral Reserve Account shall be an interest bearing account. If a Participant wishes to avail of the SEM Collateral Reserve Account as part of its Required Credit Cover, then it must provide to the Market Operator such documents and in such form as the Market Operator may require from time to time.

6.23E2 The SEM Collateral Reserve Account in relation to each relevant Participant shall contain the cash element of that Participant's Posted Credit Cover on the following terms:

1. the SEM Collateral Reserve Account shall be in the joint names of the participant and the Market Operator with the designation "SEM Collateral Reserve Account";
2. the Participant and the Market Operator shall have irrevocably instructed the SEM Bank to make payment against the sole instruction of the Market Operator in accordance with the Code and the Bank Mandate. The Code shall take precedence over the Bank Mandate..

6.23F1 The SEM Trading Clearing Accounts and the SEM Capacity Clearing Accounts shall be established and maintained in the name of the Market Operator. The cash in and rights relating to each SEM Trading Clearing Accounts, the SEM Capacity Clearing Accounts and each SEM Collateral Reserve Account opened and any balance in any of the accounts shall be held on trust by the Market Operator without obligation to invest in accordance with the provisions of this section 6. The Market Operator shall not commingle any funds standing to the credit of the SEM Trading Clearing Accounts, the SEM Capacity Clearing Accounts or any SEM Collateral Reserve Account with its own personal or any other funds. This is without prejudice to the Market Operator's rights to transfer funds as between the euro and pounds sterling SEM Trading Clearing Accounts and SEM Capacity Clearing Accounts respectively for the purposes of Settlement for Settlement Periods.

6.23F2 Notwithstanding paragraph 6.23F.1, the Market Operator shall hold the trusts as provided for in this Section 6 subject to its entitlement to make payments into and out of the SEM Trading Clearing Accounts for the purpose of settling any Balancing Costs

6.23F3 No Party or Participant shall enter into any arrangements which assign or charge or purport to assign or charge any interest any Party or Participant may have in any SEM Trading Clearing Account, SEM Capacity Clearing Account or SEM Collateral Reserve Account.

6.23G1 The Market Operator shall procure that an electronic funds transfer (EFT) facility with the SEM Bank is provided to enable it to make all payments to Participants under the Code and each Participant shall procure that an EFT is provided to it to enable it to make all payments to the Market Operator under the Code.

6.23G2 Intentionally blank

6.23G3 In procuring the establishment of the EFT facility, the Market Operator shall use its reasonable endeavours to ensure that the use of the EFT facility

does not impose unreasonable restrictions on the Participants' normal banking arrangements.

6.23H Each Party (or Applicant, as applicable) shall give to the Market Operator in accordance with the registration requirements set out in Section 2 details of the bank account or bank accounts to which the Market Operator is instructed to make payments pursuant to the Code to such Party's Participant(s) and shall provide to the Market Operator such further information in relation to such bank account or bank accounts as the Market Operator may reasonably request. Each Party shall establish and maintain such a bank account at a bank in each Currency Zone in which its Participant has a registered Unit as applicable. Where a Party or Participant changes the bank account or bank accounts to which payments are made pursuant to the Code, it shall inform the Market Operator and provide details of the new bank account or bank accounts. The Market Operator shall not be responsible for any loss to any Party or Participant where the Market Operator has not been informed by the relevant Party or Participant of any change in bank account details.

6.23I Intentionally blank.

6.23J The Market Operator shall maintain detailed ledger accounts of all funds held in the SEM Trading Clearing Accounts, SEM Capacity Clearing Accounts, SEM Collateral Reserve Accounts and all other bank accounts held by it at the SEM Bank showing all monies paid in and paid out in respect of each Participant and, where requested by a Participant or its Party, the Market Operator shall provide full details of all such payments and funds in relation to such Participant only and shall keep all information in respect of each Participant confidential. Notwithstanding the foregoing, the Market Operator shall be entitled to disclose any information or data in relation to any SEM Trading Clearing Account, SEM Capacity Clearing Account or SEM Collateral Reserve Account held at the SEM Bank to the Market Auditor or relevant tax authority where required or where otherwise required by law

Establishment of Trusts

6.23K The Market Operator shall hold all funds in the SEM Trading Clearing Accounts and the SEM Capacity Clearing Accounts and such rights as may from time to time be vested in it with regard to payments due and owing by Participants or with regard to the provision of Credit Cover by each Participant including:

1. all monies from time to time standing to the credit of each SEM Trading Clearing Account and each SEM Capacity Clearing Account relating to any Trading Period;
2. all rights of the Market Operator to call for payment of amounts owing under the Code or to make a Credit Call;
3. the Letters of Credit and all rights to, and monies representing, any proceeds therefrom up to the amount of any applicable Shortfall; and
4. any interest receivable in respect of any amounts due pursuant to the Code relating to any Trading Period,

on trust for SEM Creditors in accordance with their individual respective proportionate entitlements as they arise in accordance with the Code. Upon

termination of the said trust any residual balance after satisfaction of the entitlement of all SEM Creditors shall be held for all Participants in accordance with their individual respective proportionate entitlements as they arise in accordance with their individual respective proportionate entitlements as they arise in accordance with the Code.

- 6.23L The respective rights of the SEM Creditors to the assets held by the Market Operator on trust in the SEM Trading Clearing Accounts and the SEM Capacity Clearing Accounts as set out in paragraphs 6.23C and 6.23D respectively and as provided for in paragraph 6.23K shall be determined in accordance with the Code and in accordance with the following principles:
1. the extent of each SEM Creditor's individual rights shall be deemed to consist of the aggregate of the claims (to the extent not paid or otherwise settled) of such SEM Creditor in respect of each Trading Period; and
 2. the assets referred to in paragraph 6.23K above shall be deemed to consist of a series of funds, each fund representing the rights or monies owed, paid, held or otherwise attributable to each Trading Period in relation to Trading Payments and Capacity Payments.
- 6.23M The Market Operator shall hold the SEM Collateral Reserve Assets in respect of each Participant that establishes and maintains an SEM Collateral Reserve Account in accordance with the Code on trust as follows:
1. at any time when no amounts owed by any such Participant are overdue, on trust to repay (subject to and in accordance with paragraphs 6.33, 6.33N and 6.33O) to that Participant the monies, together with any interest accrued on such monies, held in the relevant SEM Collateral Reserve Account as part of that Participant's Posted Credit Cover; and
 2. with automatic effect as soon as any amount owed by a Participant becomes overdue, such amount of the monies deposited in the relevant SEM Collateral Reserve Account by such Participant as is equal to the amount of the Shortfall and any applicable Interest in respect of the relevant Participant on trust for the SEM Creditors on the same basis as set out in paragraph 6.23K above. and the balance (if any) shall be held on trust in respect of that Participant as provided for in paragraph 6.23M.1..
- 6.23N Each Participant which has funds remitted to it for the credit of a relevant SEM Collateral Reserve Account agrees that none of the remittances shall be repayable (or capable of being repaid) to it or its Party, except where provided otherwise in accordance with the provisions of the Code, until Deregistration of the Participant's Unit(s) becomes effective in accordance with the Code and, in particular, subject to paragraph 2.238B.2, and the Participant has paid in full all amounts actually or contingently owed by the relevant Participant to any SEM Creditor or the Market Operator pursuant to the Code..
- 6.23O Each Participant with an SEM Collateral Reserve Account undertakes not to seek withdrawal of any funds to which it may otherwise be entitled in the relevant SEM Collateral Reserve Account except in the circumstances

permitted by paragraph 6.23P. The Market Operator shall reject any purported notice of withdrawal not complying with this paragraph 6.23O, the Code and the Bank Mandate. The Code shall take precedence over the Bank Mandate.

- 6.23P Notwithstanding paragraphs 6.23N and 6.23O, if a Participant is not in default in respect of any amount owed to a SEM Creditor, then:
1. the Market Operator shall transfer quarterly to the relevant Participant the interest credited to the relevant SEM Collateral Reserve Account unless the Participant requests otherwise;
 2. the Market Operator shall transfer to such Participant within 2 Working Days after a written request from such Participant (exclusive of the day of request) any amount of the balance which exceeds the amount which such Participant has agreed to maintain in the relevant SEM Collateral Reserve Account from time to time in accordance with this section 6, the Code and the Bank Mandate provided that the Participant at all times maintains its required Credit Cover. The Code shall take precedence over the Bank Mandate;
 3. the Participant shall be entitled to change the composition of its Posted Credit Cover in satisfying the Required Credit Cover provided any reduction in any amount standing to the credit of the relevant SEM Collateral Reserve Account does not result in a breach of the Required Credit Cover.

6.23Q Intentionally blank.

6.23R Except as expressly provided for in the Code, each Party and Participant waives any right it might otherwise have to set off against any obligation owed to the Market Operator, the SEM Bank or any other Party or Participant any claims such Party or Participant may have to or in respect of any monies standing to the credit of the relevant SEM Trading Clearing Account, SEM Capacity Clearing Account or SEM Collateral Reserve Account as applicable.

6.23S Intentionally blank.

6.23T The provisions of section 10(2)(c) of the Trustee Act, 1893 shall not apply to any change in the identity of the Market Operator.

6.23U No Party or Participant shall have any claim against the Market Operator for breach of trust or fiduciary duty by the Market Operator under the Code except in the case of gross negligence or wilful misconduct.

DESCRIPTION OF TIMELINES

Settlement Day

- 6.24 All Settlement of Trading Payments and Trading Charges are based on a Settlement Day which is defined as one day commencing at 00:00 and ending at 24:00.
- 6.25 The terminology "SD+xWD" means during the Working Day which ends x Working Days after the end of the Settlement Day.

Billing Period

- 6.25A All Trading Payments and Trading Charges shall be aggregated on a Billing Period basis which is defined as one Week commencing at 00:00 on Sunday.
- 6.25B The terminology “BP+xWD” means during the Working Day which ends x Working Days after the end of the Billing Period.
- 6.26 For the purposes of this Section 6, the terminology “BP+xM” means during the last Month which ends x Months after the end of the Billing Period.

Capacity Period

- 6.27 All Capacity Payments and Capacity Charges shall be aggregated on a Capacity Period basis which is defined as one Month commencing at 00:00 on the first day of the Month.
- 6.28 The terminology “CP+xWD” means during the Working Day which ends x Working Days after the end of the Capacity Period.
- 6.29 For the purposes of this Section 6, the terminology “CP+xM” means during the Month which ends x Months after the end of the Capacity Period.

Settlement Calendar

- 6.29A The Market Operator shall publish four months prior to the start of each Year a Settlement Calendar for all days in the coming Year which shall include the following information:
 - 1. details of Non-Working Days;
 - 2. details of:
 - a. when Ex-Post Indicative Settlement Statements are due (for each type of Settlement Statement);
 - b. when Initial Settlement Statements are due (for each type of Settlement Statement);
 - c. each Invoice issue date (for each type of Invoice);
 - d. the Invoice Due Date (for each type of Invoice);
 - e. the Self-Billing Invoice issue date (for each type of Self Billing Invoice);
 - f. the Self Billing Invoice Due Date (for each type of Self Billing Invoice);
 - g. the Timetabled M+4 Settlement Reruns for relevant Settlement Period; and
 - h. the Timetabled M+13 Settlement Reruns for relevant Settlement Period.

Invoices, Self Billing Invoices and Debit Notes

- 6.30 Invoices and Self Billing Invoices (and Debit Notes where applicable) for Trading Payments and Trading Charges shall be produced in accordance with the following:
 - 1. Ex-Post Indicative Settlement Statements for Trading Payments and Trading Charges shall, in respect of each Settlement Day in

a Billing Period, be produced and issued to all Participants in respect of their Units by 17:00 on Settlement Day + 1WD.

2. The Data Verification Period for Trading Payments and Trading Charges commences at the time of issue of the Ex-Post Indicative Settlement Statements and ends at 17:00 on Settlement Day + 4WD.
3. Initial Settlement Statements shall be issued to all Participants in respect of its Units by 12:00 on Settlement Day + 5WD.
4. Invoices and Self Billing Invoices (and Debit Notes where applicable) for Trading Payments and Charges shall be issued to all Participants in respect of its Units by 12:00 on BP+5 WD.
5. Make Whole Payments shall be calculated on a Billing Period basis as part of Settlement for the last day of the Billing Period.
6. Payments and charges in respect of Settlement Reallocations shall be calculated as part of Settlement for the last day of the Billing Period.

6.31 Intentionally blank.

6.31A Intentionally blank.

6.32 Invoicing and Self Billing Invoices (and Debit Notes where applicable) for Capacity Payments and Capacity Charges shall be produced in accordance with the following:

1. Ex-Post Indicative Settlement Statements for Capacity Payments and Capacity Charges shall, in respect of each Capacity Period, be produced and issued to all Participants in respect of their Units by 17:00 on CP+1WD.
2. The Data Verification Period for Capacity Payments and Capacity Charges commences at the time of issue of the Ex-Post Indicative Settlement Statements and ends at 17:00 on CP+4WD.
3. Initial Settlement Statements, Invoices (and Debit Notes where applicable) and Self Billing Invoices for Capacity Payments and Capacity Charges shall, in respect of each Capacity Period, be produced and issued to all Participants in respect of their Units by 12:00 on CP+5WD.

6.33 Payment shall be in accordance with the following:

1. Each Ex-Post Indicative Settlement Statement, Initial Settlement Statement, Invoice and Self Billing Invoice shall be based on the data then available to the Market Operator at the time of its production.
2. Each Invoice and Self Billing Invoice shall include the amount of all applicable charges and payments.
- 2A. The Debit Note (where applicable) shall include the amount of the Unsecured Bad Debt as set out in paragraph 6.33 F.2 and 6.33 G
3. Any invoiced Participant shall pay each Invoice in full without deduction, set-off or counterclaim (except as otherwise

expressly provided for in the Code) by paying the amount due into the SEM Trading Clearing Account or SEM Capacity Clearing Account as applicable for full value by the Invoice Due Date. The Invoice Due Date is 12:00, 3 Working Days after the Invoice is issued.

4. The Market Operator shall, subject to the provisions of the Code, pay each Self Billing Invoice less any applicable Debit Note to any Participant who is an SEM Creditor by paying the amount due from the SEM Trading Clearing Account or SEM Capacity Clearing Account as applicable to the SEM Creditor's designated bank account or bank accounts for full value by the Self Billing Invoice Due Date except as otherwise provided for in the Code. The Self Billing Invoice Due Date is 17:00, 4 Working Days after the Self Billing Invoice is issued.

- 6.33A Default Interest shall accrue on any Shortfall in accordance with the Code.
- 6.33B If the Market Operator fails to pay pursuant to the Code (except as otherwise provided for in the Code) the full amount owing pursuant to a Self Billing Invoice for full value by the Self Billing Invoice Due Date, then Interest shall accrue on the amount outstanding in accordance with the Code.
- 6.33C If any invoiced Participant fails to pay an Invoice in full in accordance with paragraph 6.33.3, then the Participant has a Shortfall and the Market Operator shall forthwith make a Credit Call on the Participant's Posted Credit Cover for payment of the Shortfall. The Market Operator shall identify the Settlement Periods to which the Shortfall relates in making any Credit Call.
- 6.33D Despite the making of a Credit Call by the Market Operator, if the Participant meets any Shortfall either through its own funds, its Posted Credit Cover, or a combination of the foregoing by 12:00 on the next Working Day after the Invoice Due Date then Settlement shall continue to proceed in accordance with the Code.
- 6.33E If the Shortfall is not paid in full by 12:00 on the next Working Day after the Invoice Due Date, then:
1. the amount of the Shortfall shall become an Unsecured Bad Debt for the purposes of this Code;
 2. the Market Operator shall, where practicable, withhold, deduct or set off payment of any amount due pursuant to the Code to any Participant of a Defaulting Participant Group (unless the Market Operator reasonably believes such to be unlawful) until the amount of the Unsecured Bad Debt and any applicable Default Interest has been recovered in full in relation to the Defaulting Party;
 3. paragraphs 6.33F-L shall apply as appropriate; and
 4. the amount of the Shortfall shall become an Unsecured Bad Debt for the purposes of this Code.
- 6.33F.1 The Shortfall or the Unsecured Bad Debt as applicable shall be deemed to be a debt owing by the defaulting Participant to all Participants affected thereby pro-rated according to their individual respective proportionate

entitlements in the Shortfall or the Unsecured Bad Debt concerned and on the trusts provided for in paragraph 6.23k.

- 6.33F.2 Where a Participant has an Unsecured Bad Debt relating to any Trading Period(s) then, without prejudice to the Market Operator's rights or obligations under the Code and notwithstanding any other provisions of the Code, the Market Operator shall procure that each Self Billing Invoice relating to the Trading Period(s) affected by such Unsecured Bad Debt shall be adjusted by a reduction in the amount payable to each affected SEM Creditor ("Reduced Participant") pro-rated in accordance with the individual respective proportionate entitlement of each Reduced Participant (excepting any Participant of a Defaulting Participant Group, which would otherwise be an SEM Creditor, the subject of any withholding, deduction or set-off under paragraph 6.33E.2 until the Unsecured Bad Debt and any applicable Default Interest has been recovered in full and any Self Billing Invoices issued to them whether or not relating to the Trading Periods concerned shall, until such event, be adjusted by such amount or amounts up to the amount of the Unsecured Bad Debt and any applicable Default Interest) in the applicable funds available relating to the Trading Periods concerned in the SEM Trading Clearing Accounts or SEM Capacity Clearing Accounts as appropriate for payment of the relevant Unsecured Bad Debt, in accordance with the Code. The Market Operator shall issue the appropriate adjusted Self Billing Invoices ("Debit Note") to the applicable Reduced Participants. The Market Operator shall pay each Debit Note in accordance with the Code. The Market Operator shall use reasonable endeavours to notify the SEM Creditors in advance of making any reductions as provided for above
- 6.33F.3 All Parties agree that the Market Operator shall be entitled and irrevocably authorises the Market Operator to take all necessary action against a Party in respect of any of its Participants with an Unsecured Bad Debt to recover any Unsecured Bad Debt on behalf of SEM Creditors consequently incurring loss and to deal with any recovered monies in accordance with the Code. Any such action of the Market Operator to recover the Unsecured Bad Debt shall not be subject to the Dispute Resolution Process.
- 6.33G Where the Market Operator partially or fully recovers any Unsecured Bad Debt, the Market Operator shall procure the payment of any such monies into the relevant SEM Trading Clearing Account or SEM Capacity Clearing Account as applicable. Then, the Market Operator, shall issue an appropriate adjusted Debit Note ("Adjusted Debit Note") to each Reduced Participant for an amount pro-rated to the individual respective proportionate entitlement of each Reduced Participant in the amount of the relevant Unsecured Bad Debt recovered relating to the Trading Periods concerned with the issue of the Self Billing Invoices for the then next immediate Billing Period or Capacity Period (excepting, where the Unsecured Bad Debt and any applicable Default Interest has not been fully recovered, any Participant of a Defaulting Participant Group, which would otherwise be an SEM Creditor, the subject of any withholding, deduction or set-off under paragraph 6.33E.2 until the Unsecured Bad Debt and any applicable Default Interest has been recovered in full and any Self Billing Invoices issued to them whether or not relating to the same Trading Periods concerned, shall, until such event, be adjusted by such amount or amounts up to the amount of the Unsecured Bad Debt and any applicable Default Interest). The Market Operator shall pay each such Adjusted Debit Note in accordance with the Code.
- 6.33I Intentionally blank.

- 6.33J Intentionally blank.
- 6.33K Paragraphs 6.117 to 6.118 shall apply in relation to the recovery of any Unsecured Bad Energy Debt. Paragraphs 6.121 to 6.122 shall apply in relation to the recovery of Unsecured Bad Capacity Debt.
- 6.33L Intentionally blank.
- 6.33M If any payments made by the Market Operator pursuant to any Self Billing Invoice, Debit Note or Adjusted Debit Note or otherwise pursuant to the Code to any Participant do not correspond exactly with their respective payment entitlements established in accordance with the Code, then (and the Parties and Participants agree and consent to the actions of the Market Operator as set out as follows):
1. in the case of overpayment by the Market Operator, the Participant receiving any such overpayment shall pay back the difference between the amount of the payment received and the actual amount due to the Market Operator on becoming aware of the overpayment or, in any event, in accordance with the Code on the issue of an Invoice by the Market Operator to the Participant concerned for the relevant amount. Any Participant receiving any overpayment shall receive and be deemed to hold the amount of such overpayment on trust according to their respective individual proportionate entitlements for any SEM Creditors unpaid on the same Settlement Day on which the overpayment was made. Any Participant receiving any overpayment shall be obliged to notify the Market Operator of this on becoming aware of such detailing, where possible, the amount and date of the overpayment and details of any Self Billing Invoice pursuant to which it was made. As soon as the Market Operator becomes aware of the overpayment, the Market Operator shall notify the Participant detailing, where possible, the amount and date of the overpayment and the details of any Self Billing Invoice pursuant to which it was made and issue an Invoice for the relevant amount and the Participant shall pay the Invoice in accordance with the Code;
 2. in the case of underpayment to any Participant by the Market Operator not otherwise permitted pursuant to any other provision of the Code, the Market Operator shall pay the difference between the amount of the payment received and the actual amount due with Interest on that difference to the Participant concerned on becoming aware of the underpayment or on being notified of the underpayment by the Participant concerned. The Market Operator shall then issue a Self Billing Invoice to the Participant concerned for the relevant amount with applicable Interest and pay it to the Participant in accordance with the Code. Any Participant receiving any underpayment shall notify the Market Operator of this on becoming aware of such detailing, where possible, the amount and date of the underpayment and details of any Self Billing Invoice pursuant to which it was made. The Market Operator shall notify any Participant receiving an underpayment on becoming aware of such detailing, where possible, the amount and date of the underpayment and details of any Self Billing Invoice pursuant to which it was made and

shall issue a Self Billing Invoice for the relevant amount with Interest.

- 6.33N If any payments made by any Participant pursuant to any Invoice or otherwise pursuant to the Code do not correspond exactly with their respective payment obligations established in accordance with the Code, then (and the Parties and Participants agree and consent to the actions of the Market Operator as set out as follows):
1. in the case of overpayment by the relevant Participant, the Market Operator, unless otherwise restricted from doing so pursuant to the Code, shall hold the overpayment on trust for the relevant Participant and shall pay back the difference between the amount of the payment remitted and the actual amount due with Interest on that difference to the relevant Participant on becoming aware of the overpayment or on being notified of the overpayment by the Participant concerned (except where the Participant is in Default or is a member of a Defaulting Participant Group and the Market Operator invokes paragraph 6.33E.2). The Market Operator shall then issue a Self Billing Invoice to the Participant concerned for the relevant amount with Interest and pay it to the Participant in accordance with the Code. Any Participant making any overpayment shall notify the Market Operator of this on becoming aware of such detailing, where possible, the amount and date of the overpayment and details of any Invoice pursuant to which it was made. The Market Operator shall notify any Participant making an overpayment on becoming aware of such detailing, where possible, the amount and date of the overpayment and details of any Invoice pursuant to which it was made and issue a Billing Invoice for the relevant amount with interest.
 2. in the case of underpayment by any Participant to the Market Operator, paragraphs 6.33C-L shall apply.
- 6.33O Any Participant making any underpayment or anticipating that it will be making an underpayment in respect of any Invoice shall be obliged to notify the Market Operator of this on becoming aware that full payment of any Invoice will not be made by the Invoice Due Date detailing, where possible, the amount and date of the underpayment and details of any Invoice to which it relates.
- 6.33P Subject to paragraphs 6.23N, 6.33E, 6.33F.2, 6.33G, 6.33M and 6.33N, all payments under this section 6 shall be made on the basis that a Participant shall only be entitled to claim reimbursement of an overpayment made by it to another Party pursuant to the Code if, and then only to the extent that the aggregate amounts paid by the Participant in respect of the relevant Payment Due Date exceed the total amounts payable by that Participant or any other Participant of that Participant's Party or Affiliate of that Party to SEM Creditors in respect of that Payment Due Date together with all amounts (if any) overdue by those Participants in respect of periods prior to the relevant Payment Due Date.
- 6.33Q Notwithstanding paragraph 6.23K, if:
1. a payment is received by the Market Operator under a Letter of Credit after a sum has been withdrawn from an SEM Collateral

Reserve Account (where applicable) to make good (in whole or in part) a Shortfall or Unsecured Bad Debt; and

2. the aggregate of the amounts paid out of that SEM Collateral Reserve Account and paid under the Letter of Credit exceeds the Shortfall or Unsecured Bad Debt,

then any excess paid over the Shortfall or Unsecured Bad Debt shall be remitted with any applicable Interest by the Market Operator to the relevant Participant's bank account or bank accounts.

6.33R Where payments in respect of one or more Settlement Period(s) are fully or partially outstanding, any payments made shall be, and shall be deemed to be, settled according to the following priority:

6.33R.1 first, in or towards settlement of amounts outstanding under the Code in respect of Timetabled Settlement Reruns (with the longest outstanding Settlement Period to which a Timetabled Settlement Rerun relates being settled first); and

6.33R.2 secondly, in or towards settlement of amounts outstanding under the Code for Settlement with the longest outstanding Settlement being settled first.

Settlement Reruns

6.34 The objective of all Settlement Reruns is to adjust the financial positions of Participants to reflect any differences between data used for Settlement and any updated data received.

6.35 There will be two Timetabled Settlement Reruns for each Billing Period. The first Timetabled Settlement Rerun shall take place in the fourth month after the Billing Period (BP+4M) and the second Timetabled Settlement Rerun shall take place in the 13th month after the Billing Period (BP+13M). The Market Operator shall publish the precise date of these in advance in the Settlement Calendar.

6.36 There will be two Timetabled Settlement Reruns for each Capacity Period. The first Timetabled Settlement Rerun shall take place in the fourth month after the Capacity Period (CP+4M) and the second Timetabled Settlement Rerun shall take place in the 13th month after the Capacity Period (CP+13M). The Market Operator shall publish the precise date of these in advance in the Settlement Calendar.

6.36A The Market Operator shall issue Settlement Rerun Statements to Participants for each of their registered Units in the event of any Settlement Rerun arising from a Settlement Query, Data Query or Settlement Dispute.

6.37 Each Settlement Rerun Statement will be in the same format as the Initial Settlement Statement and must include the data from the previous Settlement Statement relating to the relevant Billing Period or Capacity Period and any revised values for all Trading Periods where these values are different.

6.38 Intentionally blank.

6.39 The Market Operator shall be entitled to undertake Settlement Reruns as provided for in the Code in addition to the Timetabled Settlement Reruns.

6.40 Intentionally blank.

6.41 When a Settlement Rerun results in any change to any amount payable under the Code, the Market Operator shall issue adjusted Invoices and Self

Billing Invoices and payment shall be made in accordance with paragraph 6.33.

Data Verification Period

- 6.42 A Participant may raise a Data Query of any Settlement Item included in the Ex-Post Indicative Settlement Statement by giving notice to the Market Operator during the Data Verification Period.
- 6.43 The duration of the Data Verification Period is set out in paragraph 6.30.2 for Trading Payments and Trading Charges and is set out in 6.32.2 for Capacity Payments and Capacity Charges.

QUERIES TO SETTLEMENT DATA

Data Queries

- 6.44 The Market Operator shall use reasonable endeavours to resolve all Data Queries within 3 Working Days of the issue of the Ex-Post Indicative Settlement Statement.
- 6.45 The Market Operator must resolve a Data Query within 10 Working Days after the Data Query is filed. Where the Market Operator requests any assistance from any Participant to resolve a Data Query, that Participant shall promptly assist the Market Operator in dealing with the Data Query concerned in order to facilitate the Market Operator in meeting that timetable.
- 6.46 The Market Operator shall procure that (i) SMP and Market Schedule Quantities will be recalculated, and (ii) a Settlement Rerun shall then be undertaken in the event that the Market Operator in resolving a Data Query determines that:
1. Commercial Offer Data or Technical Offer Data has been applied incorrectly; or
 2. Actual Availability or Dispatch Quantity has been calculated incorrectly.
- 6.47 The Market Operator shall procure that (i) SMP and Market Schedule Quantities will be recalculated, and (ii) a Settlement Rerun shall then be undertaken in the event that the Market Operator in resolving a Data Query determines that:
1. Metered Generation has been applied incorrectly; or
 2. Market Schedule Quantity has been calculated incorrectly,
- and that the correct application or calculation of any such amount would require it to change by more than the Settlement Recalculation Threshold.
- 6.48 The Market Operator shall procure that the Ex-Post Loss of Load Probability Φ shall be recalculated in the event that the Market Operator in resolving a Data Query determines that Metered Generation has been applied incorrectly, and that the correct application would require it to change by more than the Settlement Recalculation Threshold.
- 6.49 The Market Operator shall procure that Capacity Payments and Capacity Charges shall be recalculated in the event that the Market Operator in resolving a Data Query determines that:

1. Commercial Offer Data or Technical Offer Data has been applied incorrectly; or
 2. any of Eligible Availability, Dispatch Quantity, Market Schedule Quantity, SMP or Ex-Post Loss of Load Probability Φ has been calculated incorrectly.
- 6.50 Any Data Queries that are not raised before the end of the Data Verification Period shall be dealt with under the Settlement Queries process in accordance with paragraphs 6.55 to 6.62. If the Market Operator does not resolve the Data Query within the Data Verification Period, then it shall be deemed to give rise to a Settlement Dispute unless the Party concerned agrees to give the Market Operator more time, such period not exceeding 10 Working Days to resolve the Data Query.
- 6.51 If a Data Query is outstanding at the end of the Data Verification Period, the Initial Settlement Statement shall be issued by the Market Operator with a flag indicating the values affected by the outstanding Data Query.
- 6.52 Any changes to Settlement resulting from the resolution by the Market Operator of a Data Query that was not processed prior to the production of the Initial Settlement Statement shall fall into one of the two following categories:
1. Change to Settlement Items with Low Materiality;
 2. Change to Settlement Items with High Materiality.
- 6.53 In the event that there is a change to Settlement Items with Low Materiality, the Market Operator shall procure that the revised corrected input data shall be used for the relevant Settlement Period for which Final Settlement has not occurred, and Settlement shall then take place on the next Timetabled Settlement Rerun.
- 6.53A In the event that there is a change to Settlement Items with Low Materiality resolved after the final Timetabled Settlement Rerun, the Market Operator shall procure that an additional Settlement Rerun for the relevant Settlement Period shall then be performed.
- 6.54 In the event that there is a change to Settlement Items with High Materiality, the Market Operator shall procure that the revised corrected input data shall be corrected for the relevant Settlement Period and an additional Settlement Rerun for that Settlement Period shall then be performed.

Settlement Queries

- 6.55 Before raising a Settlement Dispute in respect of any of the matters set out in paragraphs 6.56 and 6.57, a Participant must raise a Settlement Query in respect of those matters.
- 6.56 A Participant may raise a Settlement Query in respect of the application of Metered Generation, or the calculation of any of the following amounts:
1. Metered Demand;
 2. Net Demand;
 3. Eligible Availability; or
 4. Actual Availability.

- 6.57 Notwithstanding any other provision of the Code, a Participant may raise a Settlement Query in the event of any difference between a Settlement Item on the Ex-Post Indicative Settlement Statement and the same item on the Initial Settlement Statement, without the Participant having filed a Data Query in relation to that Settlement Item.
- 6.58 Any changes to Settlement resulting from a Settlement Query on an Initial Settlement Statement, on an Invoice or on a Self Billing Invoice, shall be placed into one of the two following categories:
1. Change to Settlement Items with Low Materiality;
 2. Change to Settlement Items with High Materiality.
- 6.59 In the event that there is a change to Settlement Items with Low Materiality, the Market Operator shall procure that the revised corrected data will be used for the relevant Settlement Period for which Final Settlement has not occurred, and Settlement shall then take place on the next Timetabled Settlement Rerun.
- 6.59A In the event that there is a change to Settlement Items with Low Materiality resolved after the final Timetabled Settlement Rerun, the Market Operator shall procure that an additional Settlement Rerun for the relevant Settlement Period shall then be performed.
- 6.60 In the event that there is a change to Settlement Items with High Materiality, the Market Operator shall procure that the revised corrected data shall be used for the relevant Settlement Period and a Settlement Rerun for that Settlement Day shall then be performed.
- 6.61 A Participant is entitled to file a Settlement Query at any time before 17:00 on the fifth Working Day after the last Timetabled Settlement Rerun.
- 6.62 The Market Operator must resolve a Settlement Query within one month after the Settlement Query is filed with it. If the Market Operator does not resolve the Settlement Query within that period, then it shall be deemed to give rise to a Settlement Dispute unless the Party concerned agrees to give the Market Operator more time (not exceeding 10 Working Days) to resolve the Settlement Query.

Settlement Disputes

- 6.63 Subject to paragraph 6.55, a Participant may raise a Settlement Dispute in respect of an Initial Settlement Statement or an Invoice or a Self Billing Invoice insofar as it relates to Trading Payments and Trading Charges after the Initial Settlement Statements for Trading Payments and Trading Charges are issued to relevant Participants.
- 6.64 Subject to paragraph 6.55, a Participant may raise a Settlement Dispute in respect of capacity, after the Initial Settlement Statements or an Invoice or a Self Billing Invoice for Capacity Payments and Capacity Charges are issued to relevant Participants.
- 6.64A A Settlement Dispute shall also arise where the Market Operator has not resolved a Data Query within the period provided for pursuant to paragraph 6.50 or where the Market Operator has not resolved a Settlement Query within the period provided for pursuant to paragraph 6.62.
- 6.65 The Market Operator shall procure that (i) SMP and Market Schedule Quantities shall be recalculated, and (ii) a Settlement Rerun will then be

undertaken in the event that as a result of an Upheld Dispute it is determined that:

1. Commercial Offer Data or Technical Offer Data has been applied incorrectly; or
2. Actual Availability or Dispatch Quantity has been calculated incorrectly.

6.66 The Market Operator shall procure that (i) SMP and Market Schedule Quantities shall be recalculated, and (ii) a Settlement Rerun will then be undertaken in the event that as a result of an Upheld Dispute it is determined that:

1. Metered Generation has been applied incorrectly; or
2. Market Schedule Quantity has been calculated incorrectly,

and that the correct application or calculation of any such amount would require it to change by more than the Settlement Recalculation Threshold.

6.67 The Market Operator shall procure that Capacity Payments and Capacity Charges shall be recalculated in the event that as a result of an Upheld Dispute it is determined that the Metered Generation has been applied incorrectly, and that the correct application would require it to change by more than the Settlement Recalculation Threshold.

6.68 The Market Operator shall procure that Capacity Payments and Capacity Charges shall be recalculated in the event that as a result of an Upheld Dispute it is determined that:

1. Commercial Offer Data or Technical Offer Data has been applied incorrectly; or
2. any of Eligible Availability, Dispatch Quantity, Market Schedule Quantity, Net Demand, SMP or Ex-Post Loss of Load Probability Φ has been calculated incorrectly.

6.69 In accordance with the Dispute Resolution Process, Upheld Disputes shall be placed into one of two categories:

1. Upheld Dispute with Low Materiality;
2. Upheld Dispute with High Materiality.

6.70 In the event that an Upheld Dispute with Low Materiality is resolved, the Market Operator shall procure that the revised corrected data shall be used for the relevant Settlement Period for which Final Settlement has not occurred, and Settlement shall then take place on the next Timetabled Settlement Rerun.

6.71 In the event that an Upheld Dispute with Low Materiality is resolved after the final Timetabled Settlement Rerun, the Market Operator shall procure that an additional Settlement Rerun for the relevant Settlement Period shall then be performed within the timeframe directed by a Competent Authority (which shall for these purposes include the Dispute Resolution Board) as a result of the Dispute Resolution Process.

6.72 In the event of an Upheld Dispute with High Materiality, the Market Operator shall procure that the revised corrected data will be used for the relevant Settlement Day and an additional Settlement Rerun for the relevant Settlement Day shall then be performed within the timeframe directed by a

Competent Authority (which shall for these purposes include the Dispute Resolution Board) as a result of the Dispute Resolution Process.

CONSEQUENCES

- 6.73 Any payment due under the Code by any Party or Participant shall continue to be due and payable in accordance with its terms (including as to timing) notwithstanding (i) any Data Queries, Settlement Queries or Settlement Disputes in respect of such payments or (ii) any Shortfall, Unsecured Bad Debt, Default, Suspension, Deregistration or Termination arising in relation to any such Party or Participant.
- 6.74 Where the resolution of a Data Query, Settlement Query or Settlement Dispute requires a Settlement Rerun, such Settlement Rerun will only be carried out in relation to the Settlement Day(s) that are the subject of the Data Query, Settlement Query or Settlement Dispute.
- 6.75 Where the resolution of a Settlement Query or Settlement Dispute raised by a Participant requires a Settlement Rerun, the result of that Settlement Rerun shall be applied to all Participants.

DAILY CALCULATION OF PAYMENTS FOR GENERATOR UNITS

- 6.76 The following paragraphs set out the provisions for calculation of applicable daily payments to Generator Units.

Payments for Energy

- 6.77 The Total Energy Payments for Energy (ENPUud) for Generator Unit u for Settlement Day d are calculated as follows:

$$ENPUud = \sum_{h \text{ in } d} ENPuh$$

Where

1. ENPuh is the Energy Payment due for Generator Unit u for Trading Period h;
2. $\sum_{h \text{ in } d}$ is a summation over all Trading Periods h in Settlement Day d.

Payments for Constraints

- 6.78 The Constraint Payments (CONPUud) made for Generator Unit u for Settlement Day d are calculated as follows:

$$CONPUud = \sum_{h \text{ in } d} CONPuh$$

Where

1. CONPuh is the Constraint Payment made for Generator Unit u for Trading Period h
2. $\sum_{h \text{ in } d}$ is a summation over all Trading Periods h in Settlement Day d.

Payments for Uninstructed Imbalances

6.79 The Total Uninstructed Imbalance Payments (UNIMPU_{ud}) made for Generator Unit u for Settlement Day d are calculated as follows:

$$UNIMPU_{ud} = \sum_{h \text{ in } d} UNIMP_{uh}$$

Where

1. UNIMP_{uh} is the Uninstructed Imbalance Payment for Unit u in Trading Period h;
2. $\sum_{h \text{ in } d}$ is a summation over all Trading Periods h in Settlement Day d.

Testing Charges

6.80 Intentionally blank.

6.81 The Testing Charges (TCHARGE_{ud}) for Generator Unit u for Settlement Day d are calculated as follows:

$$TCHARGE_{ud} = \sum_{h \text{ in } d} TCHARGE_{uh}$$

Where

1. TCHARGE_{uh} is the Testing Charge for a Generator Unit u in Trading Period h;
2. $\sum_{h \text{ in } d}$ is a summation over all Trading Periods h in Settlement Day d.

Payments for Generator Units on a Daily Basis

6.82 The Total Payments (DAYPU_{ud}) made for Generator Unit u for Settlement Day d are calculated as follows:

$$DAYPU_{ud} = ENPU_{ud} + CONPU_{ud} + UNIMPU_{ud} - TCHARGE_{ud}$$

Where

1. ENPU_{ud} is the Total Energy Payment made for Generator Unit u for Settlement Day d;
2. CONPU_{ud} is the Constraint Payment made for Generator Unit u for Settlement Day d;
3. UNIMPU_{ud} is the Total Uninstructed Imbalance Payment made for Generator Unit u for Settlement Day d;
4. TCHARGE_{ud} is the Testing Charge for each Generator Unit u for Settlement Day d;

6.82A The Total Energy Payment (DAYPD_d) made for all Generator Units for Settlement Day d are calculated as follows:

$$DAYPD_d = \sum_u DAYPU_{ud}$$

Where

1. DAYPU_{ud} is the Total Payments made for Generator Unit u for Settlement Day d;
2. \sum_u is a summation over all Generator Units.

Invoice payments for energy in respect of Generator Units

6.83 The Invoice Energy Payments (IEP_{pb}) to Participant p for its registered Generator Units for Billing Period b are calculated as follows:

$$IEP_{pb} = \sum_{u \text{ in } p} \sum_{d \text{ in } b} DAYPU_{ud} + \sum_{u \text{ in } p} MWP_{ub} - \sum_{a \text{ in } p} \sum_{d \text{ in } b} \sum_{h \text{ in } d} SSREA_{aph}$$

Where

1. DAYPU_{ud} is the total of all Payments excluding Capacity Payments made for Generator Unit u for Settlement Day d;
2. SSREA_{aph} is the Settlement Reallocation Energy Amount for Participant p for its registered Generator Units for Trading Period h defined in Settlement Reallocation Agreement a;
3. MWP_{ub} is the Make Whole Payment for Generator Unit u in Billing Period b;
4. $\sum_{u \text{ in } p}$ is a summation over all Generator Units u registered to Participant p;
5. $\sum_{a \text{ in } p}$ is a summation over all Settlement Reallocation Agreements a registered to Participant p in respect of its registered Generator Units;
6. $\sum_{d \text{ in } b}$ is a summation over Settlement Days d in Billing Period b;
7. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d.

DAILY CALCULATION OF CHARGES FOR SUPPLIER UNITS

6.84 The following paragraphs set out the provisions detailing the component of charges for Supplier Units calculated on a daily basis but do not include non-daily charges (Capacity Payments).

Charges for Energy

6.85 The Total Energy Charges for Energy (ENC_{Vvd}) for Supplier Unit v for Settlement Day d are calculated as follows:

$$ENC_{Vvd} = \sum_{h \text{ in } d} ENC_{vh}$$

Where

1. ENC_{vh} is the Energy Charge for Supplier Unit v for Trading Period h ;
2. $\sum_{h \text{ in } d}$ is a summation over all Trading Periods h in Settlement Day d .

Charges for Imperfections

6.86 The Total Imperfections Charges ($IMPCV_{vd}$) for Supplier Unit v for Settlement Day d are calculated as follows:

$$IMPCV_{vd} = \sum_{h \text{ in } d} IMPC_{vh}$$

Where

1. $IMPC_{vh}$ is the Imperfections Charge for Supplier Unit v for Trading Period h ;
2. $\sum_{h \text{ in } d}$ is a summation over all hours h in day d .

Charges for Supplier Units on a Daily Basis

6.87 The Total Energy Charges ($DAYCV_{vd}$) for Supplier Unit v for Settlement Day d are calculated as follows:

$$DAYCV_{vd} = ENC_{vd} + IMPCV_{vd}$$

Where

1. ENC_{vd} is the Total Energy Charge for Supplier Unit v for Settlement Day d ;
2. $IMPCV_{vd}$ is the Total Imperfections Charge for Supplier Unit v for Settlement Day d ;

6.87A The Total Energy Charges ($DAYCD_d$) made for all Supplier Units for Settlement Day d are calculated as follows:

$$DAYCD_d = \sum_v DAYCV_{vd}$$

Where

1. $DAYCV_{vd}$ is the Total Charge for Supplier Unit v for Settlement Day d ;
2. \sum_v is a summation over all Supplier Units v .

Invoice Calculations for Energy in Respect of Supplier Units

6.88 The Invoice Energy Charges (IEC_{pb}) to Participant p for its registered Supplier Units in Billing Period b are calculated as follows:

$$IEC_{pb} = \sum_{v \text{ in } p} \sum_{d \text{ in } b} DAYCV_{vd} - \sum_{a \text{ in } p} \sum_{d \text{ in } b} \sum_{h \text{ in } d} SSREA_{aph}$$

Where

1. DAYCVvd is the Total Charge (Unit) excluding Capacity Charges for Supplier Unit v for Settlement Day d;
2. SSREAaph is the Settlement Reallocation Energy Amount for Participant p for its registered Supplier Units for Trading Period h defined in Settlement Reallocation Agreement a;
3. $\sum_{a \text{ in } p}$ is a summation over all Settlement Reallocation Agreements a registered to Participant p for its registered Supplier Units;
4. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units v registered to Participant p;
5. $\sum_{d \text{ in } b}$ is a summation over Settlement Days d in Billing Period b;
6. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d

Invoice Calculations for Capacity in Respect of Generator Units

- 6.89 The Invoiced Capacity Payments (ICPpc) to Participant p for its registered Generator Units for Capacity Period c are calculated as follows:

$$ICPpc = \sum_{u \text{ in } p} CPPuc - \sum_{a \text{ in } p} \sum_{d \text{ in } c} \sum_{h \text{ in } d} SSRCAaph$$

Where

1. CPPuc is the Capacity Period Payment for a Generator Unit u in Capacity Period c;
2. SSRCAaph is the Settlement Reallocation Capacity Amount for Participant p for its registered Generator Units for Trading Period h defined in Settlement Reallocation Agreement a;
3. $\sum_{u \text{ in } p}$ is a summation over all Generator Units u registered to Participant p;
4. $\sum_{a \text{ in } p}$ is a summation over all Settlement Reallocation Agreements a registered to Participant p for its registered Generator Units;
5. $\sum_{d \text{ in } c}$ is a summation over Settlement Days d in Capacity Period c;
6. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d.

Invoice Calculations for Capacity in Respect of Supplier Units

6.90 The Invoiced Capacity Charges (ICC_{pc}) to Participant p for its registered Supplier Units for Capacity Period c are calculated as follows:

$$ICC_{pc} = \sum_{v \text{ in } p} CPC_{vc} - \sum_{a \text{ in } p} \sum_{d \text{ in } c} \sum_{h \text{ in } d} SSRCA_{aph}$$

Where

1. CPC_{vc} is the Capacity Charge for a Supplier Unit v in Capacity Period c;
2. SSRCA_{aph} is the Settlement Reallocation Capacity Amount for Participant p for its registered Supplier Units for Trading Period h defined in Settlement Reallocation Agreement a;
3. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units v registered to Participant p;
4. $\sum_{a \text{ in } p}$ is a summation over all Settlement Reallocation Agreements a registered to Participant p for its registered Supplier Units;
5. $\sum_{d \text{ in } c}$ is a summation over Settlement Days d in Capacity Period c;
6. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d.

RECOVERY OF THE BILLING PERIOD CURRENCY COST

6.91 The recovery of the Billing Period Currency Cost shall be calculated according to the provisions set out in the paragraphs below.

6.92 Intentionally blank..

6.93 The Market Operator shall produce the Initial Settlement Statements applying the Trading Day Exchange Rate for the relevant Trading Day for the Participants trading in pounds sterling (£).

6.94 The Billing Period Currency Charges (BPCC_{pb}) to Participant p for the relevant Billing Period b are calculated as follows:

if (DAYPD_d + DAYCD_d) ≠ 0 *then*

$$BPCC_{pb} = \sum_{d \text{ in } b} \left(\frac{BPC_d}{(DAYPD_d + DAYCD_d)} \right) \times \left(\sum_{u \text{ in } p} DAYPU_{ud} + \sum_{v \text{ in } p} DAYCV_{vd} \right)$$

else BPCC_{pb} = 0

Where

1. BPCd is the Billing Period Currency cost for the relevant Settlement Day d as set out in more detail in Agreed Procedure 15 “Invoicing”;
2. DAYPDd is the Total of all Payments made for all Generator Units for Settlement Day d;
3. DAYCDd is the Total of all Charges for all Supplier Units for Settlement Day d;
4. DAYPUud is the Total of all Payments, excluding Capacity Payments, made for Generator Unit u for Settlement Day d;
5. DAYCVvd is the Total of all Charges for Supplier Unit v for Settlement Day d;
6. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units v registered to Participant p;
7. $\sum_{u \text{ in } p}$ is a summation over all Generator Units u registered to Participant p;
8. $\sum_{d \text{ in } b}$ is a summation over Settlement Days d in Billing Period b.

RECOVERY OF THE CAPACITY PERIOD CURRENCY COST

- 6.95 The recovery of the Capacity Period Currency Cost shall be calculated according to the provisions set out in the paragraphs below.
- 6.96 Intentionally blank.
- 6.97 The Market Operator shall produce the Initial Settlement Statements applying the Annual Capacity Exchange Rate for the relevant Trading Day for the Participants trading in pounds sterling (£).
- 6.98 The Capacity Period Currency Charges (CAPCCpc) to Participant p for the relevant Capacity Period c are calculated as follows:

if $\left(\sum_c CPPuc + CPCvc \right) \neq 0$ *then*

$$CAPCCpc = \sum_{d \text{ in } c} \left(\frac{CAPCc}{\sum_p \left(\sum_{u \text{ in } p} CPPuc + \sum_{v \text{ in } p} CPCvc \right)} \right) \times \left(\sum_{u \text{ in } p} CPPuc + \sum_{v \text{ in } p} CPCvc \right)$$

else CAPCCpc = 0

Where

1. CAPCc is the Capacity Period Currency Cost for the relevant Capacity Period c as set out in more detail in AP15;
2. CPPuc is the Capacity Payment for a Generator Unit u for Capacity Period c;

3. CPC_{vc} is the Capacity Charge for a Supplier Unit v for Capacity Period c ;
4. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units v registered to Participant p ;
5. $\sum_{u \text{ in } p}$ is a summation over all Generator Units u registered to Participant p ;
6. $\sum_{d \text{ in } c}$ is a summation over Settlement Days d for Capacity Period c ;
7. \sum_p is a summation over all Participants p .

MARKET OPERATOR CHARGE

6.99 The Market Operator will balance constraints payments and imperfection charge receipts for each billing period, through the Balancing Cost

6.99A The Balancing Cost is defined as:

$$BCb = \left(\sum_{d \text{ in } b} (DAYPDd - DAYCDd) + \sum_u MWPub \right)$$

(which can be either positive or negative).

Where

1. BCb is the Balancing Charge on the Market Operator in respect of Billing Period b . (If negative, this becomes a payment to the Market Operator).
2. $MWPub$ is the Make Whole Payment for Generator Unit u in Billing Period b
3. $DAYPDd$ is the Total of all Payments made to all Generator Units in respect of Settlement Day d
4. $DAYCDd$ is the Total of all Charges on all Supplier Units in respect of Settlement Day d
5. $\sum_{d \text{ in } b}$ is a summation over Settlement Days d in Billing Period b .
6. \sum_u is a summation over all Generator Units u .

6.100 The Market Operator Charge shall comprise (i) a Fixed Market Operator Generator Charge, which may be different for each Generator Unit, and a Fixed Market Operator Supplier Charge, which may be different for each Supplier Unit, applicable to Participants as appropriate, and (ii) a Variable Market Operator Charge applicable to all Participants in respect of their Supplier Units as appropriate. The Fixed Market Operator Generator

Charge shall be a charge applied to each Generator Unit and the Fixed Market Operator Supplier Charge be a charge applied to each Supplier Unit (either “the Fixed Market Operator Charge” as applicable). The Variable Market Operator Charge shall be a charge in respect of each unit of Net Demand at Supplier Units, and is based on a Variable Market Operator Price expressed in euro/MWh.

- 6.101 Intentionally blank.
- 6.102 Intentionally blank.
- 6.102A The Market Operator shall issue the applicable Fixed Market Operator Charge Invoice or Invoices to each Participant monthly in arrears Year or the period to which the Fixed Market Operator Charge relates or at such other frequency as the Market Operator shall decide.
- 6.102B The Market Operator shall issue the applicable Variable Market Operator Charge Invoice to each Participant each Billing Period during the Year or the period to which the Variable Market Operator Charge relates or at such other frequency as the Market Operator shall decide.
- 6.102C The Market Operator shall establish and maintain with the SEM Bank within the relevant Jurisdiction a euro bank account at a branch of the SEM Bank in Ireland and a pounds sterling bank account at a branch of the SEM Bank in Northern Ireland in its name and each called “the Market Operator Charge Account”. Participants shall make all payments due pursuant to the issue of the Fixed Market Operator Charge Invoices and Variable Market Operator Charge Invoices to the relevant Market Operator Charge Account according to the Currency Zone of its registered Units. Each Market Operator Charge Account shall be an interest bearing account.
- 6.102D Each Participant shall pay the Fixed Market Operator Charge including the applicable VAT within 7 days of the issue of the Fixed Market Operator Charge Invoice.
- 6.102E Each Participant shall pay the Variable Market Operator Charge including the applicable VAT within 7 days of the issue of the Variable Market Operator Charge Invoice.
- 6.102F Interest shall accrue on any overdue payments in accordance with paragraphs 6.128.

Fixed Market Operator Charge to All Participants

- 6.103 The Invoiced Fixed Market Operator Annual Charges in respect of Supplier Units (IMOACV_{py}) and Generator Units (IMOACU_{py}) to Participant p for Year y in respect of its Units shall be calculated as follows:

$$IMOACV_{py} = \sum_{v \text{ in } p} MOAVC_{vy}$$

$$IMOACU_{py} = \sum_{u \text{ in } p} MOAUC_{uy}$$

Where

- 1. MOAVC_{vy} is the Invoiced Fixed Market Operator Charge (Supplier Unit) for Year y for a Supplier Unit v;
- 2. MOAUC_{uy} is the Fixed Market Operator Charge (Generator Unit) for Year y for a Generator Unit u;

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.

6.104 Intentionally blank.

Variable Market Operator Charge

6.105 The Variable Market Operator Charge (VMOCpb) for Participant p in respect of its Supplier Units in Billing Period b shall be calculated according to the following formulae:

$$VMOC_{pb} = VMOP_y \times \text{Max} \left\{ \left[\sum_{v \text{ in } p} \sum_{h \text{ in } b} NDLF_{vh} \right], 0 \right\}$$

Where

1. VMOP_y is the Variable Market Operator Price for Year y;
2. NDLF_{vh} is the Loss Adjusted Net Demand from Supplier Unit v for Trading Period h;
3. $\sum_{h \text{ in } b}$ is a summation over Trading Periods h for Billing Period b;
4. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units v registered to Participant p.

6.106 Intentionally blank.

6.107 Intentionally blank.

6.108 Intentionally blank.

6.109 Intentionally blank.

6.110 Intentionally blank.

6.111 Intentionally blank.

6.112 Intentionally blank.

6.113 Intentionally blank.

6.114 Intentionally blank.

6.115 Intentionally blank.

RECOVERY OF UNSECURED BAD ENERGY DEBT

6.116 Intentionally blank.

6.117 Any amount of Unsecured Bad Energy Debt is charged to all Participants (other than that those whose Default has given rise to the relevant Unsecured Bad Debt) as set out below.

6.118 The Unsecured Bad Debt Energy Charge (UBDECpb) to Participant p for Billing Period b for its registered Generator Units shall be calculated as follows:

$$\text{if } \left(\sum_p \left[\text{Max} \left\{ \sum_{u \text{ in } p} \left(\text{MWP}_{\text{Pub}} + \sum_{d \text{ in } b} \text{DAYPU}_{\text{ud}} \right), 0 \right\} \right] \neq 0 \right) \text{ then}$$

$$\text{UBDEC}_{\text{pb}} = \left(\frac{\text{UBED}_{\text{b}}}{\sum_p \left[\text{Max} \left\{ \sum_{u \text{ in } p} \left(\text{MWP}_{\text{Pub}} + \sum_{d \text{ in } b} \text{DAYPU}_{\text{ud}} \right), 0 \right\} \right]} \right) \times \text{Max} \left\{ \sum_{u \text{ in } p} \left(\text{MWP}_{\text{Pub}} + \sum_{d \text{ in } b} \text{DAYPU}_{\text{ud}} \right), 0 \right\}$$

else $\text{UBDEC}_{\text{pb}} = 0$

Where

1. UBED_{b} is the actual amount of Unsecured Bad Energy Debt for a Billing Period b;
2. DAYPU_{ud} is the total of all Payments made to Generator Unit u for Settlement Day d and is zero for any Generator Unit registered to a Participant in a Defaulting Participant Group ;
3. MWP_{Pub} is the Make Whole Payment in respect of Generator Unit u in Billing Period b and is zero for any Generator Unit registered to a Participant in a Defaulting Participant Group;
4. $\sum_{u \text{ in } p}$ is a summation over all Generator Units u registered to Participant p;
5. $\sum_{d \text{ in } b}$ is a summation over Settlement Days d for Billing Period b;
6. \sum_p is a summation over all Participants.

6.119 Intentionally blank.

6.120 Intentionally blank.

RECOVERY OF UNSECURED BAD CAPACITY DEBT

6.121 The cost of Unsecured Bad Capacity Debt is charged on Participants (other than that those whose Default has given rise to the relevant Unsecured Bad Debt) as set out below.

6.122 The Unsecured Bad Debt Capacity Charge (UBDCCpc) to Participant p in Capacity Period c for its registered Generator Units shall be calculated as follows:

if $\left[\sum_p \left(\text{Max} \left\{ \left(\sum_{u \text{ in } p} \text{CPPuc} \right), 0 \right\} \right) \neq 0 \right]$ then

$$UBDCCpc = \left(\frac{UBCDc}{\sum_p \left(\text{Max} \left\{ \left(\sum_{u \text{ in } p} \text{CPPuc} \right), 0 \right\} \right) \right)} \times \text{Max} \left\{ \left(\sum_{u \text{ in } p} \text{CPPuc} \right), 0 \right\}$$

else $UBDCCpc = 0$

Where

1. UBCDc is the actual amount of Unsecured Bad Capacity Debt for a Capacity Period c;
2. CPPuc is the Capacity Payment for a Generator Unit u for Capacity Period c and is zero for any Generator Unit registered to a Participant in a Defaulting Participant Group;
3. $\sum_{u \text{ in } p}$ is a summation over all Generator Units u registered to Participant p;
4. \sum_p is a summation over all Participants p.

6.123 Intentionally blank.

RECOVERY OF UNPAID MARKET OPERATOR CHARGE

6.124 Intentionally blank.

6.125 The Market Operator's claim against any Participant relating to any overdue Market Operator Charge shall rank pari passu with the claims of any other Party for any Shortfall or Unsecured Bad Debt.

6.126 Intentionally blank.

6.127 Intentionally blank.

INTEREST PAYMENT

6.128 Where any payment under the Code is overdue except for Unsecured Bad Debt as provided for in paragraph 6.129, Interest shall accrue from the relevant Payment Due Date until the date of actual payment in full of the overdue amount by remittances for full value, such interest to accrue daily and both before and after any judgment.

6.129 Where the overdue amount is Unsecured Bad Debt, Default Interest shall accrue from the relevant Payment Due Date until the date of actual payment in full of the Unsecured Bad Debt by remittances for full value, such interest to accrue daily and both before and after any judgment.

6.130 Intentionally blank.

6.131 Where any Self Billing Invoice or Invoice must be re-issued due to a Settlement Rerun or a Debit Note or Adjusted Debit Note is issued pursuant

to paragraphs 6.33F and 6.33G as applicable, then Interest shall apply on the difference between the amount received or paid pursuant to the relevant prior Settlement and the amount due or payable pursuant to the Settlement Rerun accruing from the Payment Due Date applicable to the relevant prior Settlement up until the date of the issue of the applicable Invoice or . Where any Interest is payable pursuant to paragraphs 6.33 M.2 or 6.33 N.1, then the Interest shall apply on the amount as specified therein.

6.132 Intentionally blank.

6.133 Intentionally blank.

CREDIT COVER

6.134 Intentionally blank.

6.135 Each Participant shall comply with its obligation to provide the Required Credit Cover calculated in relation to it and notified to it by the Market Operator in accordance with the Code.

6.136 The Market Operator shall calculate the Required Credit Cover for each Participant as provided for pursuant to the provisions set out in paragraphs 6.168-6.171C and as provided for pursuant to Agreed Procedure 9 "Management of Credit Cover and Credit Default".

6.136A Intentionally blank.

6.136B Each Participant must maintain its Credit Cover with a Credit Cover Provider. The acceptable forms of Credit Cover which Participants can post are:

1. an irrevocable standby Letter of Credit which:
 - a. shall be issued by a Credit Cover Provider fulfilling the Bank Eligibility Requirements set out in paragraph 6.136C below;
 - b. shall be in the form attached in Appendix A, and;
 - c. shall be capable of being paid out for Same Day Value following a Credit Call;

and/or:

2. a cash held deposit in a SEM Collateral Reserve Account as provided for in paragraph 6.23.

6.136C A Credit Cover Provider shall be a Bank which must:

1. hold a banking licence in Ireland under Section 9 of the Central Bank Act 1971 (Ireland) or be authorised by the FSA to take deposits, under the Banking Act 1987 (Northern Ireland) or be otherwise authorised to provide banking services in Ireland or the United Kingdom; and,

either,

2. be a Clearing Bank in either Jurisdiction with:
 - a. a long term debt rating of not less than A (Standard & Poors) or A2 (Moody's Investors Service Inc.); or
 - b. Total Balance Sheet Assets of not less than €1,000 million,

or

3. be an international bank that is authorised or approved by the relevant regulatory authority or is otherwise eligible to provide banking services in the Jurisdictions and which has a branch in the relevant location (Dublin and/or Belfast) and complies with paragraph 6.136C 2 b.
- 6.136D If a bank is a subsidiary, then its parent company must have a credit rating of not less than A (or AA) (Standard & Poors) or A2 (or AA2) (Moody's Investors Service Inc.) or Total Balance Sheet Assets of not less than €10,000 million.
- 6.136E If a Participant's Credit Cover Provider is no longer qualified to issue or hold Credit Cover, the Participant shall re-post its Required Credit Cover with a Bank or a subsidiary of a Bank that satisfies the requirements in paragraph 6.136C within 10 Working Days of the Participant's Credit Cover Provider ceasing to be qualified. This period shall not form part of the Settlement Risk Period.
- 6.137 Each Participant shall post the Required Credit Cover in its designated Currency.
- 6.137A The Market Operator shall calculate the Required Credit Cover using the Trading Day Exchange Rate applicable on the day of the calculation.
- 6.138 Intentionally blank.
- 6.139 Intentionally blank.
- 6.140 If the Market Operator, following a Credit Call, draws down any amounts from the Participant's Posted Credit Cover, such that the Posted Credit Cover no longer meets the Participant's notified Required Credit Cover, the Participant shall within 2 Working Day fully re-establish the Required Credit Cover and shall notify the Market Operator on doing this.
- 6.141 Credit Cover is subject to the following conditions:
1. a Participant's Posted Credit Cover shall be available for draw down by the Market Operator making a Credit Call on a Participant's Credit Cover Provider as provided for in the Code and shall continue to remain in place until such time as all amounts due in respect of the Participant concerned under the Code have been paid in full;
 2. the Market Operator, but not any Party or Participant, has the right to deduct from or set off against a Participant (or any Member of a Defaulting Participant Group) any outstanding claims and liabilities of that Participant or those Participants against any amounts owing pursuant to any Invoice under the Code without the prior consent of any such Participant concerned;
 3. the Participant cannot reduce the amount of the Posted Credit Cover below the Required Credit Cover calculated by the Market Operator and notified to the Participant in accordance with the Code;
 4. a Participant shall notify the Market Operator at least one Working Day in advance of any change to its Posted Credit Cover;

5. in the event of Suspension or Termination of a Participant or Deregistration of a Participant's Units, the Participant's then applicable Required Credit Cover shall remain in place in accordance with the Code until all amounts due by the Participant concerned under the Code have been paid in full;
 6. in the event of Suspension or Termination of a Participant or Deregistration of a Participant's Units, and once all amounts due by the Participant under the Code have been paid in full, the Participant's Required Credit Cover shall then be the amount of Fixed Credit Requirement specified in the Termination Order, Voluntary Termination Order or Deregistration Order as applicable.
- 6.142 The Market Operator shall calculate the level of Required Credit Cover in accordance with the Code to cover a Participant's actual and potential payment liabilities in respect of its Units and participation in the Pool at any time. A Participant's Required Credit Cover shall be calculated to cover:
1. its Actual Exposure (credit exposure resulting from Invoices that have been issued but not yet paid, and from amounts in Settlement Statements for which no Invoice has been issued); and
 2. its Undefined Potential Exposure (potential exposure resulting from accrued obligations that have not yet been included in any Settlement Statement and future obligations which would be likely to have been accrued before a Participant could be suspended from trading in the Pool for Default).
- 6.143 Intentionally blank.
- 6.144 The Market Operator shall determine:
1. the Actual Exposure Period relevant for Billing Period payments and charges (the period from the issuing of the last Invoice for energy to the end of the most recent Trading Period included in any Settlement Statement relating to Billing Period charges);
 2. the Actual Exposure Period relevant for Capacity Period payments and charges (the period from the issuing of the last Invoice for capacity to the end of the most recent Trading Period included in any Settlement Statement relating to Capacity Period charges);
 3. the Undefined Exposure Period relevant for Billing Period payments and charges (the period from the end of the most recent Trading Period included in any Settlement Statement relating to Billing Period charges, until the time at which the Participant can be removed from incurring further liability or, where that time is not on a Working Day, the next Working Day thereafter); and,
 4. the Undefined Exposure Period relevant for Capacity Period payments and charges (the period from the end of the most recent Trading Period included in any Settlement Statement relating to Capacity Period charges, until the time at which the Participant can be removed from incurring further liability or, where that time is not a Working Day, the next Working Day thereafter).

- 6.145 Intentionally blank.
- 6.146 Intentionally blank.

PARAMETERS FOR THE DETERMINATION OF REQUIRED CREDIT COVER

- 6.147 The Market Operator shall publish a report to the Regulatory Authorities at least four months before the start of the Year proposing the following parameters relating to the calculation of the Required Credit Cover:
1. the Fixed Credit Requirement;
 2. the Historical Assessment Period for the Billing Period;
 3. the Historical Assessment Period for the Capacity Period;
 4. the Analysis Percentile Parameter;
 5. the Credit Cover Adjustment Trigger; and
 6. the maximum level of the Warning Limit.
- 6.147A The Market Operator's report must set out any relevant research or analysis carried out by the Market Operator or other party and the justification for the specific values proposed. Such a report may, and shall if so requested by the Regulatory Authorities, include alternative values from those proposed and shall set out the arguments for and against such alternatives.
- 6.147B The Market Operator shall publish the approved value(s) for each parameter on receipt of the Regulatory Authorities' determination and, in any event, at least two months before the start of the Year or within 5 Working Days of receipt whichever is the later.

MONITORING OF CREDIT COVER

- 6.148 The Market Operator shall recalculate the Required Credit Cover, as provided for in paragraphs 6.168-6.171C and Agreed Procedure 9 "Management of Credit Cover and Credit Default", for each Participant every Working Day and shall send to each Participant its recalculation of that Participant's Required Credit Cover by 17:00 on that Working Day.
- 6.149 Intentionally blank.
- 6.150 The Market Operator shall base the daily calculation of the Required Credit Cover on the available data for the Settlement Risk Period up to the Settlement Day on which the calculations are made.
- 6.151 Intentionally blank.
- 6.152 Where the daily recalculation of Required Credit Cover determines that additional Credit Cover is necessary, the Market Operator shall issue to the relevant Participant by 17:00 on the same Working Day a Credit Cover Increase Notice specifying the amount of additional Credit Cover required to be posted to satisfy its Required Credit Cover. The Participant shall post the additional necessary Credit Cover by 17:00 on the second Working Day thereafter unless the Credit Cover Increase Notice expires as set out in paragraph 6.152A.
- 6.152A If a Participant has been issued with a Credit Cover Increase Notice in accordance with paragraph 6.152 and the daily recalculation of Required Credit Cover undertaken on the next Working Day determines that the Participant's Posted Credit Cover exceeds the calculated Required credit

Cover then the Market Operator shall issue to the Participant a Credit Cover Notice Withdrawal that the additional Credit Cover is not required. A Credit Cover Notice issued in accordance with paragraph 6.152 shall expire when the Market Operator issues a Credit Cover Notice Withdrawal on the next Working Day..

- 6.153 Intentionally blank.
- 6.154 Intentionally blank
- 6.155 Intentionally blank.
- 6.156 Intentionally blank.
- 6.157 Intentionally blank.
- 6.158 Intentionally blank.
- 6.159 Intentionally blank.
- 6.160 Intentionally blank.
- 6.161 Intentionally blank.
- 6.162 Intentionally blank.
- 6.163 The Market Operator shall provide the Participant with a Warning Notice on any Working Day when the ratio of Required Credit Cover to Posted Credit Cover is at the Participant's Warning Limit. Each Participant shall be entitled to specify its own Warning Limit. However the Regulatory Authorities shall set the maximum value for the Warning Limit in writing in advance of each Year. This shall operate as the default Warning Limit for all Participants. Any Participant may require the Market Operator to set a lower Warning Limit for it.
- 6.164 Where a Participant reasonably expects that compared with the four most recent Billing Periods, the total metered quantities with respect to its Supplier Units will increase by more than the Credit Cover Adjustment Trigger for any of the next four Billing Periods, then it shall inform the Market Operator as soon as reasonably possible. Such a Participant shall be an Adjusted Participant.
- 6.164A Each Adjusted Participant shall provide additional information to the Market Operator as provided for pursuant to Agreed Procedure 9 "Management of Credit Cover and Credit Default" to enable the Market Operator to calculate revised values of Required Credit Cover in accordance with this section 6.

CALCULATIONS FOR REQUIRED CREDIT COVER

- 6.165 For the purposes of Credit Cover monitoring and calculations:
 - 1. a Participant is a New Participant from the commencement of their participation; and,
 - 2. a Participant ceases to be a New Participant when the length of time between the commencement of their participation and the last Trading Period covered in the most recent Settlement Statement issued for that Participant is greater than the length of time covered by the Historical Assessment Period.
- 6.166 A Participant is an Adjusted Participant where the Participant notifies the Market Operator of a change in circumstances pursuant to paragraph 6.164. A Participant ceases to be an Adjusted Participant when the length of time between their notification as set out in paragraph 6.164 and the last Trading

Period covered in the most recent Settlement Statement issued for that Participant is greater than the length of time covered by the Historical Assessment Period.

- 6.166A In relation to Adjusted and New Participants, the calculation of future credit risk is based upon an estimate of the future price for energy: the Credit Assessment Price.
- 6.166B The Market Operator shall publish a report to the Regulatory Authorities at least four months before the start of the Year proposing the Credit Assessment Price relating to the calculation of the Required Credit Cover for the Undefined Exposure Period.
- 6.166C The Market Operator's report must set out any relevant research or analysis carried out by the Market Operator and the justification for the specific values proposed. Such a report may, and shall if so requested by the Regulatory Authorities, include alternative values from those proposed and must set out the arguments for and against such alternatives. The Regulatory Authorities may publish such a Market Operator report for consultation or otherwise.
- 6.166D The Market Operator shall publish the approved value for the Credit Assessment Price on receipt of the Regulatory Authorities' determination and, in any event, at least two months before the start of the Year or within 5 Working Days of receipt of the determination, whichever is the later.
- 6.167 Intentionally blank.

Calculations for the Actual Exposure Period in respect of Supplier Units

- 6.168 The Actual Supplier Exposure (ASE_{pf}) for Participant p in respect of its Supplier Units for the Actual Exposure Period f is calculated as follows:

$$ASE_{pf} = \left(\sum_{b \text{ in } f} (IEC_{pb} + VMOC_{pb}) + \sum_{c \text{ in } f} ICC_{pc} \right) + \left(\sum_{d \text{ in } \theta} \left(\sum_{v \text{ in } p} DAYCV_{vd} - \sum_{a \text{ in } p} \sum_{h \text{ in } d} SSREA_{aph} \right) \right) + \left(\sum_{d \text{ in } q} \left(\sum_{v \text{ in } p} \sum_{h \text{ in } d} CC_{vh} - \sum_{a \text{ in } p} \sum_{h \text{ in } d} SSRCA_{aph} \right) \right)$$

Where:

1. IEC_{pb} is the Invoice Energy Charge for Participant p for its registered Supplier Units in Billing Period b applicable if the relevant Billing Period Invoice is issued but not paid;
2. VMOC_{pb} is the Variable Market Operator Charge for Participant p in Billing Period b for its registered Supplier Units applicable if the relevant Billing Period Invoice is issued but not paid;
3. ICC_{pc} is the Invoiced Capacity Charge for Participant p for its registered Supplier Units for Capacity Period c applicable if the relevant Capacity Period Invoice is issued but not paid;
4. DAYCV_{vd} is the Total of all Charges on Supplier Unit v for Settlement Day d;

5. SSREA_{aph} is the Settlement Reallocation Energy Amount for Participant *p* for its registered Supplier Units for Trading Period *h* defined in Settlement Reallocation Agreement *a*;
6. CC_{vh} is the Capacity Charge for Supplier Unit *v* in Trading Period *h*;
7. SSRCA_{aph} is the Settlement Reallocation Capacity Amount for Participant *p* for its registered Supplier Units for Trading Period *h* defined in Settlement Reallocation Agreement *a*;
8. $\sum_{b \text{ in } f}$ is a summation over all Billing Periods *b* that are invoiced but not paid in Actual Exposure Period *f*;
9. $\sum_{c \text{ in } f}$ is a summation over all Capacity Periods *c* that are invoiced but not paid in Actual Exposure Period *f*;
10. $\sum_{d \text{ in } \theta}$ is a summation over all Settlement Days *d* of the un-invoiced Billing Period θ ;
11. $\sum_{h \text{ in } d}$ is a summation over Trading Periods *h* in Settlement Day *d*;
12. $\sum_{a \text{ in } p}$ is a summation over all Settlement Reallocation Agreements registered to Participant *p* in respect of its registered Supplier Units;
13. $\sum_{d \text{ in } q}$ is a summation over all Settlement Days *d* of the un-invoiced Capacity Period *q*;
14. $\sum_{v \text{ in } p}$ is a summation over Supplier Units registered to Participant *p*.

Calculations for the Actual Exposure Period in respect of Generator Units

6.168A The Actual Generator Exposure (AGE_{pf}) for Participant *p* in respect of its Generator Units in the Actual Exposure Period *f* is calculated as follows:

$$AGE_{pf} = \left(\sum_{b \text{ in } f} (IEP_{pb}) + \sum_{c \text{ in } f} ICP_{pc} \right) + \left(\sum_{d \text{ in } \theta} \left(\sum_{u \text{ in } p} DAYPU_{ud} - \sum_{a \text{ in } p} \sum_{h \text{ in } d} SSREA_{aph} \right) \right) + \left(\sum_{d \text{ in } q} \left(\sum_{u \text{ in } p} \sum_{h \text{ in } d} CP_{uh} - \sum_{a \text{ in } p} \sum_{h \text{ in } d} SSRCA_{aph} \right) \right)$$

Where:

1. IEP_{pb} 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;
2. ICP_{pc} 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. DAYPU_{ud} is the Total of all Payments to Generator Unit u for Settlement Day d;
4. SSREA_{aph} is the Settlement Reallocation Energy Amount for Participant p for its registered Generator Units for Trading Period h defined in Settlement Reallocation Agreement a;
5. CP_{uh} is the Capacity Payment for Generator Unit u in Trading Period h;
6. SSRCA_{aph} is the Settlement Reallocation Capacity Amount for Participant p for its registered Supplier Units for Trading Period h defined in Settlement Reallocation Agreement a;
7. $\sum_{b \text{ in } f}$ is a summation over all Billing Periods b that are invoiced but not paid in Actual Exposure Period f;
8. $\sum_{c \text{ in } f}$ is a summation over all Capacity Periods c that are invoiced but not paid in Actual Exposure Period f;
9. $\sum_{d \text{ in } \theta}$ is a summation over all Settlement Days d of the un-invoiced Billing Period θ ;
10. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d;
11. $\sum_{a \text{ in } p}$ is a summation of all Settlement Reallocation Agreements a registered to Participant p in respect of its registered Generator Units;
12. $\sum_{d \text{ in } q}$ is a summation over all Settlement Days d of the un-invoiced Capacity Period q;
13. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units registered to Participant p.

CALCULATIONS OF REQUIRED CREDIT COVER FOR THE UNDEFINED EXPOSURE PERIOD

6.168B The Undefined Exposure calculations are dependent on whether a Participant is a New Participant or an Adjusted Participant or a Standard Participant.

6.168C The Undefined Exposure for each New or Adjusted Participant shall be based on the product of its Credit Assessment Volume and the Credit Assessment Price.

Calculation of the Estimated Energy Price

6.168D The sum of the System Marginal Prices (USMPg) for each Trading Period h in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g is calculated as follows:

$$USMPg = \sum_{d \text{ in } \gamma} \sum_{h \text{ in } d} SMP_h$$

Where

1. SMP_h is the System Marginal Price for Trading Period h;
2. $\sum_{d \text{ in } \gamma}$ is a summation over all Settlement Days d in Historical Assessment Period for Billing Periods γ relevant to the Working Day of calculation;
3. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d.

6.168E The count of all System Marginal Prices (SMPHAPg) in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g is calculated as follows:

$$SMPHAPg = Count\left(SMP_h : \forall_{h \text{ in } \gamma}\right)$$

Where

1. SMP_h is the System Marginal Price for Trading Period h;
2. $Count\left(SMP_h : \forall_{h \text{ in } \gamma}\right)$ is the count of all System Marginal Prices in the Historical Assessment Period for Billing Periods γ;

6.169 The mean value of System Marginal Prices (UMSMPg) in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g is calculated as follows:

$$UMSMPg = \frac{USMPg}{SMPHAPg}$$

Where

1. USMPg is the sum of all SMP values in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g;
2. SMPHAPg is the count of all System Marginal Prices in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g.

6.169A The standard deviation of the System Marginal Price (SDSMP_g) in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g is calculated as follows:

$$SDSMP_g = \sqrt{\frac{SMPHAP_g \sum_{\mu=1}^{\mu=SMPHAP_g} (SMP_{\mu})^2 - \left(\sum_{\mu=1}^{\mu=SMPHAP_g} SMP_{\mu} \right)^2}{SMPHAP_g \times (SMPHAP_g - 1)}}$$

Where

1. SMPHAP_g is the count of all System Marginal Prices in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g ;
2. SMP _{μ} is the value of SMP within the Historical Assessment Period n ;
3. $\sum_{\mu=1}^{\mu=SMPHAP_g}$ is the sum over all the values of System Marginal Price in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g ;
4. μ is a variable used as a counter over all the Trading Periods h within the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g .

6.169B The Estimated Energy Price (EEP_g) for Undefined Exposure Period g is calculated as follows:

$$EEP_g = (UMSMP_g + AnPP(SDSMP_g))$$

Where:

1. UMSMP_g is the mean value of System Marginal Prices in the Historical Assessment Period for Billing Periods γ 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: "Credit Risk Management";
3. SDSMP_g is the standard deviation of the values of System Marginal Prices in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g .

Calculations of the Estimated Capacity Price

6.169C The sum of the Capacity Payments Demand Prices (UCPDP_g) in the Historical Assessment Period for Capacity Periods ρ to be applied for the for the Undefined Exposure Period g is calculated as follows:

$$UCPDP_g = \sum_{d \text{ in } \rho} \sum_{h \text{ in } d} CPDP_h$$

Where

1. CPDP_h is the Capacity Payments Demand Price for Trading Period h,
2. $\sum_{d \text{ in } \rho}$ is a summation over all Settlement Days d in the Historical Assessment Period for Capacity Periods ρ;
3. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d.

6.169D The count of all Capacity Payments Demand Prices (CPDPHAP_g) in the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g is calculated as follows:

$$CPDPHAP_g = \text{Count} \left(CPDP_h : \forall_{h \text{ in } \rho} \right)$$

Where

1. CPDP_h is the Capacity Payments Demand Price for Trading Period h;
2. $\text{Count} \left(CPDP_h : \forall_{h \text{ in } \rho} \right)$ is the count of all the Capacity Payments Demand Prices in the Historical Assessment Period for Capacity Periods ρ;

6.169E The mean value of the Capacity Payments Demand Prices (UMCPDP_g) in the Historical Assessment Period for Capacity Periods to be applied for the Undefined Exposure Period g is calculated as follows:

$$\overline{UMCPDP}_g = \frac{UCPDP_g}{CPDPHAP_g}$$

Where

1. CPDPHAP_g is count of all Capacity Payments Demand Prices in the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g;
2. UCPDP_g is the sum of all Capacity Payments Demand Prices in the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g.

6.169F The standard deviation of the Capacity Payments Demand Prices (SDCPDP_g) in the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g is calculated as follows:

$$SDCPDP_g = \sqrt{\frac{CPDPHAP_g \sum_{\mu=1}^{\mu=CPDPHAP_g} (CPDP\mu)^2 - \left(\sum_{\mu=1}^{\mu=CPDPHAP_g} CPDP\mu \right)^2}{CPDPHAP_g \times (CPDPHAP_g - 1)}}$$

Where

1. CPDPHAP_g is count of all Capacity Payments Demand Prices in the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g ;
2. CPDP μ is the value of Capacity Payments Demand Price within the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g ;
3. $\sum_{\mu=1}^{\mu=CPDPHAP_g}$ is the sum over all the values of System Marginal Price in the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g ;
4. μ is a variable used as a counter over all the Trading Periods h within the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g .

6.169G The Estimated Capacity Price (ECP_g) for the Undefined Exposure Period g is calculated as follows:

$$ECP_g = (\overline{UMCPDP}_g + AnPP(SDCPDP_g))$$

Where:

1. UMCPDP_g is the average Capacity Payments Demand Price in the Historical Assessment Period for Capacity Periods ρ to be 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: Credit Risk Management;
3. SDCPDP_g is the standard deviation of the values of Capacity Payments Demand Prices in the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g .

6.169H The Credit Assessment Price (CAP_g) for the Undefined Exposure Period g is calculated as follows:

$$CAP_g = (EEP_g + \text{Max}\{VMOP(y), VMOP(y-1)\} + \text{Max}\{IMP(y), IMP(y-1)\} + ECP_g)$$

Where:

1. EEP_g is the Estimated Energy Price for Undefined Exposure Period g ;
2. VMOP_y is the Variable Market Operator Price for the Year set by the Regulatory Authorities;
3. IMP_y is the Imperfections Price for the Year y ;

4. ECP_g is the Estimated Capacity Price for the Undefined Exposure Period *g*.

Calculations of the count of Undefined Exposure Periods in the relevant Historical Assessment Periods

- 6.169I The count of Undefined Exposed Periods that will be used in the summation of the Billing Period payments and charges for the Undefined Exposure Period for Billing Periods *g* (BPHAP_g) in the Historical Assessment Period for Billing Periods *γ* is calculated as follows:

$$BPHAP_g = (\gamma - UEPBD_g) + 1$$

Where

1. *γ* is the number of days in the Historical Assessment Period for Billing Periods relevant to the Working Day of this calculation;
2. UEPBD_g is the number of days in the Undefined Exposure Period for Billing Periods *g* relevant to the Working Day of this calculation.

- 6.169J The count of Undefined Exposed Periods that will be used in the summation of Capacity Period payment and charges (CPHAP_g) in the Undefined Exposure Period for Capacity Periods *g* in the Historical Assessment Period for Capacity Periods *ρ* is calculated as follows:

$$CPHAP_g = (\rho - UEPCD_g) + 1$$

Where

1. *ρ* is the number of days in the Historical Assessment Period for Capacity Periods relevant to the Working Day of this calculation;
2. UEPCD_g is the number of days in the Undefined Exposure Period for Capacity Periods relevant to the Working Day of this calculation.

Calculations for the Undefined Exposure Period for a New or Adjusted Participant in respect of its Supplier Units

- 6.170 The Credit Assessment Volume for a New or Adjusted Participant *p* (CAVS_{ph}) will be a forecast of Demand in respect of a New or Adjusted Participant's Supplier Units based upon information provided by the Participant in accordance with paragraph 6.164 and used in the calculation of the Participant's Required Credit Cover.

- 6.170A The Undefined Potential Exposure (UPES_{pg}) for each New or Adjusted Participant *p* in respect of its Supplier Units for the Undefined Exposure Period *g* is calculated as follows:

$$UPES_{pg} = CAP_g \times \sum_{h \in g} CAVS_{ph}$$

Where

1. CAP_g is the Credit Assessment Price for the Undefined Exposure Period *g*;
2. CAV_{ph} is the Credit Assessment Volume for the Trading Period *h*;

3. $\sum_{h \text{ in } g}$ is a summation over Trading Periods h in Undefined Exposure Period g.

Calculations for the Undefined Exposure Period for a New or Adjusted Participant in respect of its Generator Units

- 6.170B The Credit Assessment Volume for a New or Adjusted Participant p (CAVGph) will be forecast of Output in respect of the Participant's Generator Units based upon information provided by the Participant in accordance with paragraph 6.164 and used in the calculation of the Participant's Required Credit Cover.
- 6.170C The Undefined Exposure (UPEGpg) for each New or Adjusted Participant in respect of its Generator Units for the Undefined Exposure Period g is calculated as follows:

$$UPEGpg = CAPg \times \sum_{h \text{ in } g} CAVGph$$

Where

1. CAPg is the Credit Assessment Price for the Undefined Exposure Period g;
2. CAVGph is the Credit Assessment Volume for the Trading Period h;
3. $\sum_{h \text{ in } g}$ is a summation over Trading Periods h in Undefined Exposure Period g.

Calculations for the Undefined Exposure Period for a Standard Participant in respect of its Supplier Units

- 6.170D Where the Participant is a Standard Participant, the Participant's Undefined Exposure in respect of its Supplier Units will be calculated as one calculation for the Billing Period values and one calculation for the Capacity Period values according to the procedures set out in the following paragraphs.

Calculations in respect of Billing Period Charges

- 6.170E The Billing Period Settlement Sum (BSVSp ω) for Participant p in respect of its Supplier Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Billing Periods is calculated as follows:

for each Undefined Exposure Period ω in the Historical Assessment Period defined by BPHAPg

$$BSVSp\omega = \sum_{d \text{ in } \omega} \left(\left(\sum_{v \text{ in } p} DAYCVvd \right) + \left(VMOPy \times \sum_{v \text{ in } p} \sum_{h \text{ in } d} NDLFvh \right) \right)$$

Where

1. DAYCVvd is the Total of all Charges on Supplier Unit v for Settlement Day d;
2. VMOPy is the Variable Market Operator Price for Year y;
3. NDLFvh is the Loss Adjusted Net Demand from Supplier Unit v for Trading Period h;
4. $\sum_{d \text{ in } \omega}$ is a summation over all Settlement Days d in Undefined Exposure Period ω ;
5. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d;
6. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units registered to Participant p.

6.170G The mean of the Billing Period Settlement Sum (BXS_{VS}p_g) for Participant p in respect of its Supplier Units to be applied for the Undefined Exposure Period g for all Undefined Exposure Periods ω in the Historical Assessment Period for Billing Periods is calculated as follows:

$$BXS_{VS}p_g = \frac{\left(\sum_{\omega=1}^{\omega=BPHAP_g} BSVSp_g\omega \right)}{BPHAP_g}$$

Where

1. BPHAP_g is the count of Undefined Exposed Periods that will be used in the summation of the Billing Period payments and charges in the Historical Assessment Period for Billing Periods for the relevant Undefined Exposure Period g;
2. BSVSp_g ω is the Billing Period Settlement Sum for Participant p in respect of its Supplier Units for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Billing Periods.

6.170H The standard deviation of the Billing Period Settlement Sums (BDS_{VS}p_g) for Participant p in respect of its Supplier Units to be applied for Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Billing Periods is calculated as follows:

$$BDS_{VS}p_g = \sqrt{\frac{BPHAP_g \sum_{\omega=1}^{\omega=BPHAP_g} (BSVSp_g\omega)^2 - \left(\sum_{\omega=1}^{\omega=BPHAP_g} BSVSp_g\omega \right)^2}{BPHAP_g \times (BPHAP_g - 1)}}$$

Where

1. BPHAP_g is the count of Undefined Exposed Periods that will be used in the summation of the Billing Period payments and

charges in the Historical Assessment Period for Billing Periods for the relevant Undefined Exposure Period g;

2. BSVSp ω is the Billing Period Settlement Sum for Participant p in respect of its Supplier Units for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Billing Periods;

3. $\sum_{\omega=1}^{\omega=BP\text{HAP}g}$ is the sum over all the Billing Period Settlement Sums for the Undefined Exposed Periods ω .

6.170I The Billing Period Undefined Potential Exposure (BUPES pg) to be applied for Participant p in respect of its Supplier Units for the Undefined Exposure Period g is calculated as follows:

$$BUPESpg = (BXS\text{VSp}g + AnPP(BSD\text{SVSp}g))$$

Where

1. BXS $\text{VSp}g$ is the mean of the Billing Period Settlement Sums for Participant p in respect of its Supplier Units to be applied for the Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Billing Periods;
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 Default";
3. BSD $\text{SVSp}g$ is the standard deviation of the Billing Period Settlement Sums for Participant p in respect of its Supplier Units to be applied for Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Billing Periods.

Calculations in respect of Capacity Charges

6.170J The Capacity Period Settlement Sum (CSVSp ω) for Participant p in respect of its Supplier Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Capacity Periods p is calculated as follows:

for each Undefined Exposure Period ω in the Historical Assessment Period defined by CP $\text{HAP}g$

$$CSVSp\omega = \sum_{d \text{ in } \omega} \left(\sum_{v \text{ in } p} \sum_{h \text{ in } d} CCvh \right)$$

Where

1. CC vh is the Capacity Charge for Supplier Unit v in Trading Period h;

2. $\sum_{d \text{ in } \omega}$ is a summation over all Settlement Days d in Undefined Exposure Period ω ;
3. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d
4. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units registered to Participant p.

6.170L The mean of the Capacity Period Settlement Sum (CXSVSp_g) for Participant p in respect of its Supplier Units to be applied for the Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods is calculated as follows:

$$CXSVSp_g = \frac{\left(\sum_{\omega=1}^{\omega=CPHAP_g} CSVSp_g \omega \right)}{CPHAP_g}$$

Where

1. CPHAP_g is the count of Undefined Exposed Periods that will be used in the summation of the Capacity Period payment and charges in the Historical Assessment Period for Billing Periods for the relevant Undefined Exposure Period g;
2. CSVSp_g ω is the Capacity Period Settlement Sum for Participant p in respect of its Supplier Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Capacity Periods.

6.170M The Capacity Period standard deviation (CSDSVSp_g) for Participant p in respect of its Supplier Units to be applied for Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods is calculated as follows:

$$CSDSVSp_g = \sqrt{\frac{CPHAP_g \sum_{\omega=1}^{\omega=CPHAP_g} (CSVSp_g \omega)^2 - \left(\sum_{\omega=1}^{\omega=CPHAP_g} CSVSp_g \omega \right)^2}{CPHAP_g \times (CPHAP_g - 1)}}$$

Where

1. CPHAP_g is the count of Undefined Exposed Periods that will be used in the summation of the Capacity Period payment and charges in the Historical Assessment Period for Billing Periods for the relevant Undefined Exposure Period g;
2. CSVSp_g ω is the sum of Capacity charges for Participant p in respect of its Supplier Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Capacity Periods;

3. $\sum_{\omega=1}^{\omega=CPHAPg}$ is the sum over all values of the Capacity Period Settlement Sums for the Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods ρ ;

6.170N The Capacity Period Undefined Potential Exposure (CUPES $_{pg}$) in the Historical Assessment Period for Capacity Periods ρ to be applied for Participant p in respect of its Supplier Units for the Undefined Exposure Period g is calculated as follows:

$$CUPES_{pg} = (CXSVSp_g + AnPP(CSDSVSp_g))$$

Where

1. CXSVSp $_g$ is the mean of the Capacity Period Settlement Sums for Participant p in respect of its Supplier Units to be applied for the Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods;
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 "Credit Management";
3. CSDSVSp $_g$ is the standard deviation of the Capacity Period Settlement Sums for Participant p in respect of its Supplier Units to be applied for Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods.

Total Undefined Exposure for a Standard Participant in respect of its Supplier Units

6.170O The Undefined Potential Exposure (UPES $_{pg}$) in the Historical Assessment Periods to be applied for Undefined Exposure Period g for Participant p in respect of its Supplier Units is calculated as follows:

$$UPES_{pg} = BUPES_{pg} + CUPES_{pg}$$

Where

1. BUPES $_{pg}$ is the Billing Period Undefined Potential Exposure in the Historical Assessment Period for Billing Periods γ to be applied for Undefined Exposure Period g for Participant p in respect of its Supplier Units;
2. CUPES $_{pg}$ is the Capacity Period Undefined Potential Exposure in the Historical Assessment Period for Capacity Periods ρ to be applied for Undefined Exposure Period g for Participant p in respect of its Supplier Units.

Calculations for the Undefined Exposure Period for a Standard Participant in respect of its Generator Units

6.170P Where the Participant is a Standard Participant, the Participant’s Undefined Exposure in respect of its Generator Units will be calculated according to the procedures set out in the following paragraphs.

Calculations in respect of Billing Period Payments

6.170Q The Billing Period Settlement Sum (BSVUp ω) for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Billing Periods is calculated as follows:

for each Undefined Exposure Period ω in the Historical Assessment Period defined by BPSHAP $_g$

$$BSVUpg\omega = \sum_{d \text{ in } \omega} \left(\sum_{u \text{ in } p} DAYPUud \right)$$

Where

1. DAYPUud is the Total of all Payments on Generator Unit u for Settlement Day d;
2. $\sum_{d \text{ in } \omega}$ is a summation over all Settlement Days d in Undefined Exposure Period ω ;
3. $\sum_{u \text{ in } p}$ is a summation over all Generator Units registered to Participant p.

6.170S The mean of Billing Period Settlement Sum (BXSUVpg) for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Billing Periods is calculated as follows:

$$BXSUVpg = \frac{\left(\sum_{\omega=1}^{\omega=BPHAPg} BSVUpg\omega \right)}{BPHAPg}$$

Where

1. BPHAP $_g$ is the count of Undefined Exposed Periods that will be used in the summation of the Billing Period payment and charges in the Historical Assessment Period for Billing Periods for the relevant Undefined Exposure Period g;
2. BSVUp ω is the Billing Period Settlement Sum for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Billing Periods.

6.170T The standard deviation of the Billing Period Settlement Sums (BSDSVUp_g) for Participant p in respect of its Generator Units to be applied for Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Billing Periods is calculated as follows:

$$BSDSVUp_g = \sqrt{\frac{BPHAP_g \sum_{\omega=1}^{\omega=BPHAP_g} (BSVUp_g \omega)^2 - \left(\sum_{\omega=1}^{\omega=BPHAP_g} BSVUp_g \omega \right)^2}{BPHAP_g \times (BPHAP_g - 1)}}$$

Where

1. BPHAP_g is the count of Undefined Exposed Periods that will be used in the summation of the Billing Period payments and charges in the Historical Assessment Period for Billing Periods for the relevant Undefined Exposure Period g;
2. BSVUp_gω is the Billing Period Settlement Sum for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Billing Periods;
3. $\sum_{\omega=1}^{\omega=BPHAP_g}$ is the sum over all values of the Capacity Period Settlement Sums in for the Undefined Exposed Periods ω.

6.170U The Billing Period Undefined Potential Exposure (BUPEGp_g) in the Historical Assessment Period for Billing Periods γ to be applied for Undefined Exposure Period g for Participant p in respect of its Generator Units is calculated as follows:

$$BUPEGp_g = (BXSVP_g + AnPP(BSDSVUp_g))$$

Where

1. BXSVP_g is the mean of the Billing Period Settlement Sums for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Billing Periods;
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: "Credit Risk Management";
3. BSDSVUp_g is the standard deviation of the Billing Period Settlement Sums for Participant p in respect of its Supplier Units to be applied for Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Billing Periods.

Calculations in respect of Capacity Payments

6.170V The Capacity Period Settlement Sum (CSVUp_gω) for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Capacity Periods p is calculated as follows:

for each Undefined Exposure Period ω in the Historical Assessment Period defined by $CPHAP_g$

$$CSVUpg\omega = \sum_{d \text{ in } \omega} \left(\sum_{u \text{ in } p} \sum_{h \text{ in } d} CPuh \right)$$

Where

1. $CPuh$ is the Capacity Payment for Generator Unit u in Trading Period h ;
2. $\sum_{d \text{ in } \omega}$ is a summation over all Settlement Days d in Undefined Exposure Period ω ;
3. $\sum_{h \text{ in } d}$ is a summation over Trading Periods h in Settlement Day d
4. $\sum_{u \text{ in } p}$ is a summation over all Generator Units registered to Participant p .

6.170X The mean of Capacity Period Settlement Sum ($CXSVUpg$) for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods is calculated as follows:

$$CXSVUpg = \frac{\left(\sum_{\omega=1}^{\omega=CPHAP_g} CSVUpg\omega \right)}{CPHAP_g}$$

Where

1. $CSVUpg\omega$ is the Capacity Period Settlement Sum for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Capacity Periods;
2. $CPHAP_g$ is the count of Undefined Exposed Periods that will be used in the summation of the Capacity Period payment and charges in the Historical Assessment Period for Billing Periods for the relevant Undefined Exposure Period g .

6.170Y The Capacity Period standard deviation ($CSDSVUpg$) for Participant p in respect of its Generator Units to be applied for Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods is calculated as follows:

$$CSDSVUp_g = \sqrt{\frac{CPHAP_g \sum_{\omega=1}^{\omega=CPHAP_g} (CSVUp_g \omega)^2 - \left(\sum_{\omega=1}^{\omega=CPHAP_g} CSVUp_g \omega \right)^2}{CPHAP_g \times (CPHAP_g - 1)}}$$

Where

1. CSVUp_gω is the sum of Capacity charges for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for each Undefined Exposure Period ω in the Historical Assessment Period for Capacity Periods;
2. CPHAP_g is the count of Undefined Exposure Periods that will be used in the summation of the Capacity Period payments and charges in the Historical Assessment Period for Capacity Periods for the relevant Undefined Exposure Period g;
3. $\sum_{\omega=1}^{\omega=CPHAP_g}$ is the sum over all values of the Capacity Period Settlement Sums for the Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods p.

6.170Z The Capacity Period Undefined Potential Exposure (CUPEG_{pg}) for Participant p in respect of its Generator Units is calculated as follows:

$$CUPEG_{pg} = (CXSVUp_g + AnPP(CSDSVUp_g))$$

Where

1. CXSVUp_g is the mean of the Capacity Period Settlement Sums for Participant p in respect of its Generator Units to be applied for the Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods;
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: "Credit Risk Management";
3. CSDSVUp_g is the Capacity standard deviation of the Capacity Period Settlement Sums for Participant p in respect of its Generator Units to be applied for Undefined Exposure Period g for all Undefined Exposure Periods in the Historical Assessment Period for Capacity Periods.

Total Undefined Exposure for a Standard Participant in respect of its Generator Units

6.170ZA The Undefined Potential Exposure in the Historical Assessment Periods to be applied for the Undefined Exposure Period g for Participant p in respect of its Generator Units is calculated as follows:

$$UPEG_{pg} = BUPEG_{pg} + CUPEG_{pg}$$

Where

1. BUPEGpg is the Billing Period Undefined Potential Exposure in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g for Participant p in the Billing Period in respect of its Generator Units;
2. CUPEGpg is the Capacity Period Undefined Potential Exposure in the Historical Assessment Period for Capacity Periods ρ to be applied for the Undefined Exposure Period g for Participant p in respect of its Generator Units.

CALCULATIONS OF REQUIRED CREDIT COVER FOR PARTICIPANTS

- 6.171 The Required Credit Cover (RCCSpr) for each Participant p in respect of its Supplier Units in respect of the Settlement Risk Period r is calculated as follows:

$$RCCSpr = \max \left\{ 0, ASE_{pf} + UPES_{pg} - \sum_{a \text{ in } p} \sum_{h \text{ in } g} (SSREA_{aph} + SSRCA_{aph}) + VAT_{pr} \right\}$$

Where:

1. ASE_{pf} is the Actual Exposure for Participant p in respect of its Supplier Units for the Actual Exposure Period f ;
2. UPES_{pg} is the Undefined Potential Exposure in the Historical Assessment Periods to be applied for the Undefined Exposure Period g for Participant p in respect of its Supplier Units;
3. SSREA_{aph} is the Settlement Reallocation Energy Amount for Participant p for its registered Supplier Units for Trading Period h defined in Settlement Reallocation Agreement a ;
4. SSRCA_{aph} is the Settlement Reallocation Capacity Amount for Participant p for its registered Supplier Units for Trading Period h defined in Settlement Reallocation Agreement a ;
5. VAT_{pr} is the applicable VAT charge for the Participant p in Settlement Risk Period r ;

6. $\sum_{a \text{ in } p}$ is a summation of all Settlement Reallocation Agreements a registered to Participant p in respect of its registered Units;

7. $\sum_{h \text{ in } g}$ is a summation over all Trading Periods h in Undefined Exposure Period g comprising the Undefined Exposure Periods for both Billing Periods and Capacity Periods.

- 6.171A The Required Credit Cover (RCCGpr) for each Participant p in respect of its Generator Units in respect of the Settlement Risk Period r is calculated as follows:

$$RCCGpr = \text{Max} \left\{ 0, \left(\left(AGE_{pf} + UPEG_{pg} - \sum_{a \text{ in } p} \sum_{h \text{ in } g} (SSREA_{aph} + SSRCA_{aph}) \right) x (-1) \right) \right\} + VAT_{pr}$$

Where:

8. AGE_{pf} is the Actual Exposure for Participant p in respect of its Generator Units for the Actual Exposure Period f;
9. UPEG_{pg} is the Undefined Potential Exposure in the Historical Assessment Periods to be applied for the Undefined Exposure Period g for Participant p in respect of its Generator Units;
10. SSREA_{aph} is the Settlement Reallocation Energy Amount for Participant p for its registered Generator Units for Trading Period h defined in Settlement Reallocation Agreement a;
11. SSRCA_{aph} is the Settlement Reallocation Capacity Amount for Participant p for its registered Generator Units for Trading Period h defined in Settlement Reallocation Agreement a;
12. VAT_{pr} is the applicable VAT charge for the Participant p in Settlement Risk Period r;

13. $\sum_{a \text{ in } p}$ is a summation of all Settlement Reallocation Agreements a registered to Participant p in respect of its registered Units;

14. $\sum_{h \text{ in } g}$ is a summation over all Trading Periods h in Undefined Exposure Period g comprising the Undefined Exposure Periods for both Billing Periods and Capacity Periods.

6.171B A Participant in respect of its Generator Units shall always post at a minimum the Fixed Credit Requirement as Required Credit Cover.

6.171C The Required Credit Cover (RCC_{pr}) for each Participant p in respect of its Units in respect of the Settlement Risk Period r is calculated as follows:

$$RCC_{pr} = RCCS_{pr} + RCCG_{pr} + \sum_{v \text{ in } p} FCRS_y + \sum_{u \text{ in } p} FCRG_y$$

Where:

1. RCCS_{pr} is the Required Credit Cover for each Participant p in respect of its Supplier Units in respect of the Settlement Risk Period r;
2. RCCG_{pr} is the Required Credit Cover for each Participant p in respect of its Generator Units in respect of the Settlement Risk Period r;
3. FCRS_y is the Fixed Credit Requirement for Year y for a Participant in respect of each of its Supplier Units.
4. FCRG_y is the Fixed Credit Requirement for Year y for a Participant in respect of each of its Generator Units.
5. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units registered to Participant p.
6. $\sum_{u \text{ in } p}$ is a summation over all Generator Units registered to Participant p.

- 6.172 Intentionally blank.
- 6.173 Intentionally blank.
- 6.174 Intentionally blank.
- 6.175 Intentionally blank.

CALLING IN CREDIT COVER

- 6.175A Where the Market Operator exercises its right to make a Credit Call on a Participant's Posted Credit Cover in accordance with the Code, the Market Operator:
 - 1. shall be entitled to draw down on the Letter of Credit or the SEM Collateral Reserve Account (where applicable) in whatever order, proportion or combination it decides; and
 - 2. shall, where practicable, notify the Participant that it is making the Credit Call on the Participant's Credit Cover Provider or Credit Cover Providers as applicable.
- 6.175B Where the Market Operator draws down any amounts from the Participant's Posted Credit Cover, the Participant shall within 2 Working Day fully re-establish at minimum the Required Credit Cover as calculated and notified to it in accordance with paragraph 6.148 and comply with paragraph 6.152 and 6.152A.
- 6.175C Intentionally blank.

SETTLEMENT REALLOCATION

- 6.176 A Settlement Reallocation Agreement is an agreement between two Participants (which, for the avoidance of doubt, may be the same Participant) and the Market Operator, under which the Market Operator credits to the relevant Participant, (the Credited Participant), with positive amounts in respect of one or more Trading Periods within the relevant Settlement Period, in consideration of matching negative amounts debited against the other relevant Participant, (the Debited Participant), in respect of the same Trading Period(s). Agreed Procedure 10 "Settlement Reallocation" sets out the processes for the requesting of, recording and termination of Settlement Reallocations.
- 6.177 Intentionally blank.
- 6.178 Intentionally blank.
- 6.179 A Settlement Reallocation Agreement only becomes valid where the intended Debited Participant lodges a Settlement Reallocation Request with the Market Operator.
- 6.179A A Settlement Reallocation Agreement may not be lodged between two Participants in different Currency Zones.
- 6.179B A Settlement Reallocation Agreement may be lodged during the period commencing 28 days prior to the relevant Trading Day and ending on the close of business one Working Day prior to the issue of the invoice on which the Settlement Reallocation is to appear.

- 6.180 Settlement Reallocation Data Transactions shall not be included on the Settlement Statements. The Debited Participant and the Credited Participant will be able to review the relevant Settlement Reallocation Agreements that have been lodged with the Market Operator.
- 6.181 Intentionally blank.
- 6.182 Settlement Reallocation is offered based on Trading and Capacity Payments.
- 6.183 The amount included in a Settlement Reallocation Agreement for a Trading Payment is:
1. SSREA_{ph} which is the Settlement Reallocation Energy Amount for Participant p for its registered Units for Trading Period h defined in Settlement Reallocation Agreement a.
- 6.184 The amount included in a Settlement Reallocation Agreement for a Capacity Payment is:
1. SSRCA_{ph} which is the Settlement Reallocation Capacity Amount for Participant p for its registered Generator Units for Trading Period h defined in Settlement Reallocation Agreement a.
- 6.185 Intentionally blank.
- 6.186 Intentionally blank.
- 6.187 Intentionally blank.
- 6.188 Intentionally blank.
- 6.189 A Participant may not request or enter into a Settlement Reallocation Agreement as a Debited Participant in respect of its registered Generator Units that covers more than the payment that it expects to receive under the Code in respect of such Generator Units over the relevant Billing or Capacity Period as appropriate.
- 6.190 A Participant may not request or enter into a Settlement Reallocation Agreement as a Debited Participant in respect of its Supplier Units.
- 6.189A Intentionally blank.
- 6.189B Intentionally blank.
- 6.191 The Market Operator shall cancel a Settlement Reallocation Agreement if a cancellation request is lodged with the Market Operator on behalf of both Participants prior to 17:00 on the second Working Day after the end of the first Billing Period or Capacity Period to which the Settlement Reallocation Agreement relates. No cancellation request shall be effective if:
1. the Credited Participant is, at the time of the proposed cancellation, in default of any payment due under the Code; or
 2. its cancellation would cause the Required Credit Cover of the Credited Participant to exceed its Posted Credit Cover.

IMPLEMENTATION OF ADMINISTERED SETTLEMENT

General Principles in the Event of Administered Settlement

- 6.192 In implementing Administered Settlement, the Market Operator shall, insofar as reasonably practicable, adopt a balance between the following principles:
1. make use of all available data, and limit to the maximum extent practicable the use of estimated values;
 2. operate within the Settlement timescales, and be subject to the query and Settlement Dispute provisions as set out in Section 6;
 3. seek results which are as close as possible to those which would have been calculated under the normal Settlement processes;
 4. obtain the prior written approval of the Regulatory Authorities for the detailed calculations and methodology used; and
 5. publish details of the calculations and methodology used as soon as practicable thereafter.

Estimation of Data in the Event of Administered Settlement

- 6.193 To the extent necessary, the Market Operator may estimate any Settlement data in the event of Administered Settlement.

Administered Settlement in the Event of MSP Failure

- 6.194 In the event of MSP Failure for a Trading Day, the Market Operator will calculate an Administered Schedule for all Trading Periods for the Trading Day.
- 6.195 An Administered Schedule comprises Administered Prices for each Trading Period and Administered Quantities for each Generator Unit for each Trading Period.
- 6.196 In creating an Administered Schedule, the objective of the Market Operator shall be to reproduce, to the greatest degree practicable, the results that would have been determined by the MSP Software.
- 6.197 The SMP value for each Trading Period in the Trading Day (SMP_h) will be set to equal the relevant Administered Price.
- 6.198 The Market Schedule Quantity value for each Generator Unit for each Trading Period for the Trading Day (MSQ_{uh}) will be set to equal the relevant Administered Quantity value.
- 6.199 All Settlement calculations will be made using these values for SMP and Administered Quantities.
- 6.199A In the event of Administered Settlement resulting from MSP Failure, then once the MSP Failure is corrected, the Market Operator shall procure that Settlement Reruns shall be undertaken as soon as reasonably possible in respect of the relevant Trading Periods and that revised Settlement Statements, Invoices and Self Billing Invoices in respect of the relevant Billing Period or Periods shall be issued to Participants.

Administered Settlement in the event of Electrical System Collapse

- 6.200 In the event of Electrical System Collapse, Administered Settlement will be implemented using values calculated as follows:

$$MSQuh = \frac{MGuh}{TPD} \quad \text{for all Generator Units } u$$

$$DQuh = MSQuh \quad \text{for all Generator Units } u$$

$$EAuh = MSQuh \quad \text{for all Generator Units } u$$

$$NDvh = MDvh \quad \text{for all Supplier Units } v$$

$$\phi h = 0$$

Where

1. MSQuh is the Market Schedule Quantity for Generator Unit u for Trading Period h
2. MGuh is the Metered Generation for Generator Unit u for Trading Period h (MWh)
3. EAuh is the Eligible Availability for Generator Unit u for Trading Period h (MW of average power)
4. DQuh is the Dispatch Quantity for Generator Unit u for Trading Period h (average MW)
5. DQu'h is the Dispatch Quantity for the Interconnector Residual Capacity Unit u' for Trading Period h (average MW)
6. MDvh is the Metered Demand for Supplier Unit v for Trading Period h
7. NDvh is the Net Demand for Supplier Unit v for Trading Period h
8. Φh is the Ex-Post Loss of Load Probability
9. TPD is the Trading Period Duration (in hours).

6.200A In the event of Electrical System Collapse prior to completing the calculations set out in paragraph 6.200, relevant values of Metered Generation (MGuh) for Interconnector Units, Interconnector Residual Capacity Units and Interconnector Error Units must first be calculated as specified in paragraphs 5.76 to 5.78.

6.200B In the event of Electrical System Collapse prior to completing the calculations set out in paragraph 6.200, relevant values of Metered Generation (MGuh) for Netting Generator Units must first be set to equal zero.

6.201 The System Marginal Price (SMP_h) is set to equal the highest Market Offer Price (MOP_{uh}) for any Generator Unit for which the Market Schedule Quantity is greater than zero, the Market Offer Price being calculated from Commercial Offer Data Submitted prior to Electrical System Collapse.

Management of Taxes and VAT

6.202 Intentionally blank.

6.203 All Invoices and Self Billing Invoices (and Debit Notes where applicable) shall include VAT at the appropriate rate for the Participant concerned as more particularly set out below.

- 6.204 All Participants shall indemnify and keep indemnified the Market Operator, its officers, employees and agents against any liability which the Market Operator may incur as a result of the failure of any Participant to pay or account for any VAT due on any Invoice or Self Billing Invoice (or Debit Note where applicable).
- 6.205 If any Participant shall fail properly to pay or account for any amount of VAT payable or receivable by it, that person shall indemnify and keep indemnified each non-defaulting Participant, (on an after tax basis, but taking account of any tax relief available to the relevant Participant, as the case may be) against any liability which such non-defaulting Participant shall incur consequently.
- 6.206 In relation to each Self Billing Invoice, the Market Operator shall include as a separate item an amount of VAT to be declared by the relevant Participant as output VAT for the purposes of that Participant's VAT return, which amount shall take account of the amount of electricity deemed to have been subject to a Cross Border Supply.
- 6.207 The Market Operator shall keep records of all Self Billing Invoices issued to Participants and shall compare the amounts of electricity deemed to have been subject to a Cross Border Supply to the amounts of electricity actually subject to a Cross Border Supply bi-monthly for each Participant to which Self Billing Invoices were issued in the relevant period. The Market Operator shall, in respect of each Participant, calculate the difference (if any) between the amounts of electricity deemed to have been subject to a Cross Border Supply in the relevant period and the amounts of electricity actually subject to a Cross Border Supply in that relevant period and shall, where applicable, include in the next Self Billing Invoice issued to the relevant Participant an amount (which may be either a positive or negative amount) of VAT to be declared by the relevant Participant as either an increase or a reduction in output VAT for the purposes of that Participant's VAT return.
- 6.208 In relation to each Invoice, the Market Operator shall include as a separate item an amount of VAT payable by the relevant Participant in respect of such Invoice which amount shall take into account the amount of electricity deemed to have been subject to a Cross Border Supply.
- 6.209 The Market Operator shall keep records of all Invoices issued to Participants and shall compare the amounts of electricity deemed to have been subject to a Cross Border Supply to the amounts of electricity actually subject to a Cross Border Supply bi-monthly for each Participant to which Invoices were issued in the relevant period. The Market Operator shall, in respect of each Participant, calculate the difference (if any) between the amounts of electricity deemed to have been subject to a Cross Border Supply in the relevant period and the amounts of electricity actually subject to a Cross Border Supply in that relevant period and shall, where applicable, include in the next Invoice issued to the relevant Participant an amount (which may be either a positive or negative amount) of VAT to be declared by the relevant Participant as either an increase or a reduction in output VAT for the purposes of that Participant's VAT return.
- 6.210 The Market Operator shall retain records of all amounts of VAT included in all Self Billing Invoices and all Invoices together with records of all amounts of electricity deemed to be subject to a Cross Border Supply and actually subject to a Cross Border Supply and shall, upon request, make such information available to the Revenue Authorities and shall cooperate in any

investigation by the either Revenue Authority relating to the settlement of the SEM or any aspect of it.

[Note: This suggested treatment of VAT for the purposes of the SEM is subject to the approval of the relevant revenue authorities in both Northern Ireland and the Republic of Ireland and is therefore included here for illustrative purposes and is subject to further change and alteration.]

7. INTERIM ARRANGEMENTS

GENERAL

Purpose

- 7.1 This Section 7 sets out Interim Provisions which suspend, amend or replace specified paragraphs or parts of paragraphs of other Sections of the Code or the Appendices, for a specified Applicable Interim Period.
- 7.1A For each Interim Provision, for the Applicable Interim Period, each Party shall be required to comply with the Interim Provision instead of and in place of the part of the Code which it is stated in paragraph 7.2 to replace (“Original Provision”), and Parties shall be deemed to have complied with and to have fully discharged their obligations in respect of any obligation under an Original Provision the Code provided that they have complied with the applicable Interim Provision during the Applicable Interim Period.
- 7.1B For each Interim Provision, for the Applicable Interim Period, each reference in the Code to the Original Provision (with the exception of the reference to the Original Provision in paragraph 7.4) shall be deemed to be a reference to the Interim Provision.
- 7.2 Intentionally Blank.
- 7.3 Intentionally Blank.

Interim Provisions

- 7.4 Each of the following Interim Provisions shall have effect, be in substitution for and apply in place of the relevant Code paragraph or part of a paragraph which it is stated to replace, until expiry of the Applicable Interim Period, from which time the relevant Code paragraph shall commence and apply:
- 7.4A Until the date that is 12 months after the Market Start Date, the following shall be inserted after paragraph 2.52.16:
17. Whether or not the Interconnector is capable of being dispatched at zero.
- 7.4B Until the date that is 12 months after the Market Start Date, paragraph 2.59 shall be replaced with:
- 2.59 For each Interconnector, there shall be an Interconnector Error Unit. The Interconnector Owner, through submission of appropriate Interconnector Registration Data, shall procure that the Interconnector Error Unit is registered to the relevant Interconnector Administrator in accordance with the procedure for registration of Units set out in paragraphs 2.20 to 2.36, subject to the requirements in paragraphs 2.59A and 2.61.
- 7.5 Until the date that is 12 months after the Market Start Date, paragraph 2.65B shall be replaced with:
- 2.65B No Participant may register more than one Interconnector Unit on an Interconnector.

- 7.6 Until the date that is 12 months after the Market Start Date, paragraphs 2.324 to 2.325 shall be replaced with:
- 2.324 Any Notice required to be given in writing may be in the form of a letter delivered by hand, or sent by pre-paid registered post or fax. For the purposes of paragraphs 2.324 to 2.330, email shall not constitute a Notice given in writing.
- 7.7 Until the date that is 12 months after the Market Start Date, paragraph 2.325 shall be replaced with:
- 2.325 Notices in writing shall be addressed and sent to the receiving Party at the address and fax number specified by the receiving Party for the purposes of the receipt of Notices under the Code or such other address and fax number as the receiving Party may from time to time specify by notice given in writing in accordance with this Section to the Party giving the notice.
- 7.8 Until the date that is 12 months after the Market Start Date, paragraphs 2.327 to 2.330 shall be replaced with:
- 2.327 Any Notice given by fax shall be confirmed by forwarding a copy of the same by pre-paid registered post provided that failure to receive such confirmation shall not prejudice effective receipt of the notice under the following paragraph 2.328.
- 2.328 Any Notice in writing shall be deemed to have been received:
1. in the case of delivery by hand, when delivered; or
 2. in the case of prepaid registered post, on the second Working Day following the day of posting or, if sent from a jurisdiction other than Northern Ireland or Ireland, on the fifth Working Day following the day of posting; or
 3. in the case of fax, at 5pm on the Working Day on which the Notice was sent as evidenced by a fax transmission report of the sending Party showing that the Notice has been transmitted; or
- 2.329 Each Party shall, on registration, specify at least one postal address and fax number and one representative for the service of Notices in writing and may amend such details by notifying the relevant Market Operator representative in writing.
- 2.330 A Party may specify different addresses or fax numbers and representatives for the purposes of Notices of different kinds or relating to different matters.
- 7.9 Until the date that is 12 months after the Market Start Date, paragraph 3.2D shall be replaced with:
- 3.2D Where the Market Operator is required to “issue”, “submit” or “send” data to a Party, the Market Operator may meet this requirement in respect of users of Communication Channels 2 and 3 by making the data available for retrieval by the relevant Party unless otherwise specified.

- 7.10 Until the date that is 12 months after the Market Start Date, paragraph 3.26 shall be replaced with:
- 3.26 Intentionally blank.
- 7.11 Until the date that is 12 months after the Market Start Date, paragraph 3.39 shall be replaced with:
- 3.39 The Market Operator shall in respect of each CMS Data Transaction received by it from Participants prior to the deadlines set out in Appendix C process the CMS Data Transaction to determine whether it is valid in accordance with Agreed Procedure 4 “Data Transaction Submission and Validation”. The Market Operator shall validate a Data Transaction if the conditions set out in Agreed Procedure 4 “Data Transaction Submission and Validation” are satisfied in respect of that Data Transaction and shall reject the Data Transaction if such conditions are not so satisfied.
- 7.12 Until the date that is 12 months after the Market Start Date, paragraph 3.81B shall be replaced with:
- 3.81B Meter Data Providers shall ensure that all Metered Demand values submitted to the Market Operator in respect of Supplier Units are positive (including zero).
- 7.13 Until the date that is 12 months after the Market Start Date, paragraph 3.86 shall be replaced with:
- 3.86 The format of the publication of the items and Data Records in Appendix K by the Market Operator and general rules concerning the Publication of information by the Market Operator are set out in Agreed Procedure 6 “Data Publication”.
- 7.14 Until the date that is 12 months after the Market Start Date, paragraph 3.89 shall be replaced with:
- 3.89 Intentionally blank.
- 7.15 Until the date that is 12 months after the Market Start Date, paragraph 4.28 shall be replaced with:
- 4.28 In submitting data relating to any Generator or Supplier Unit that is Distribution Connected, the Distribution System Operator in its role as a Meter Data Provider and all Participants shall provide that all values expressed in MW, MW/min or MWh and that are used in the MSP Software or in Settlement or referred to in Sections 4, 5 or 6 of the Code shall first have been scaled by the appropriate Distribution Loss Adjustment Factor by the submitting Party. A System Operator shall not, when submitting any such value that is expressed in this Code to be for submission by a System Operator or Meter Data Provider, scale such value by any Distribution Loss Adjustment Factor.
- 7.16 Until the date that is 12 months after the Market Start Date, paragraph 4.38B shall be replaced with:

4.38B The System Operators shall each submit to the Market Operator the Dispatch Instructions and may submit an associated Ramp Rate for each Dispatch Instruction in respect of each Generator Unit registered within its Currency Zone which is Dispatchable. The System Operators shall submit this information each day to the Market Operator for the previous Trading Day, based on Outturn Data, and values shall be net of Unit Load.

7.17 Until the date that is 12 months after the Market Start Date, paragraph 4.69 shall be replaced with:

4.69 For each Error Supplier Unit v' , each of which is associated with a Jurisdiction e , the Loss-Adjusted Net Demand ($NDLFv'h$) shall be calculated as follows:

$$NDLFv'h = \sum_{u \text{ in } e} MGLFuh - \sum_{v \text{ in } e} MDLFvh + NIJeh$$

Where

1. $\sum_{u \text{ in } e} MGLFuh$ is the total Metered Generation, Loss-Adjusted, of all Generator Units u within Jurisdiction e excluding Netting Generator Units
2. $\sum_{v \text{ in } e} MDLFvh$ is the total Metered Demand, Loss-Adjusted, of all Supplier Units v within Jurisdiction e excluding the Error Supplier Unit
3. $NIJeh$ is the Net Inter-Jurisdictional Import to Jurisdiction e in Trading Period h , expressed in MWh, without adjustment for Transmission Losses.

7.17A Until the date that is 12 months after the Market Start Date, paragraph 4.109.9 shall be replaced with:

9. the summation is over all Trading Periods h in Billing Period b excluding any Trading Periods h

7.18 Until the date that is 12 months after the Market Start Date, paragraph 5.37A shall be replaced with:

5.37A For each Trading Day for each Interconnector, the relevant System Operator shall by 09:30 on the day prior to Gate Closure for that Trading Day calculate the Available Transfer Capacity (consisting of the Maximum Import Available Transfer Capacity and the Maximum Export Available Transfer Capacity) for each Trading Period in the Optimisation Time Horizon and shall submit the resulting values to the Market Operator.

7.19 Intentionally blank.

- 7.20 Until the date that is 12 months after the Market Start Date, paragraph 5.56 shall be replaced with:
- 5.56 For each Trading Day, the Market Operator shall by 11:00 on the day prior to the start of the Trading Day determine Interconnector Unit Nominations for each Interconnector Unit from the Ex-Ante Indicative MSP Software Run based on the Active Interconnector Unit Capacity Holding and Commercial Offer Data. In calculating the Interconnector Unit Nominations, the Ramp Rate for each Interconnector Unit will be set to a value of 99999.9 MW/min. The Market Operator shall by 11:00 on the day prior to the start of the Trading Day submit the Interconnector Unit Nominations to the Interconnector Administrator.
- 7.21 Until the date that is 12 months after the Market Start Date, paragraph 5.57 shall be replaced with:
- 5.57 Based on the Interconnector Unit Nominations, the Interconnector Administrator shall calculate Modified Interconnector Unit Nominations in accordance with Agreed Procedure 2 “Interconnector Unit Capacity Right Calculations and Dispatch Notifications”. These shall be calculated by the Interconnector Administrator such that the Modified Interconnector User Nominations, when considered in aggregate across any Interconnector, are consistent with the technical elements of the Interconnector Registration Data for that Interconnector at all times. The Interconnector Administrator shall by 11:45 on the day prior to the start of the Trading Day submit the Modified Interconnector Unit Nominations to the Market Operator.
- 7.22 Until the date that is 12 months after the Market Start Date, paragraph 5.60 shall be replaced with:
- 5.60 In the case of the event described in paragraph 5.59, then the Modified Interconnector Unit Nominations shall be recalculated and re-issued to each Interconnector User for each of their Interconnector Units by the Interconnector Administrator as soon as possible. The Interconnector Administrator shall submit the revised Available Transfer Capacity and revised Modified Interconnector Unit Nominations to the Market Operator by 12:00 on the day following the Trading Day.
- 7.22A Until the date that is 12 months after the Market Start Date, paragraph 5.61A shall be replaced with:
- 5.61A Intentionally blank.
- 7.23 Until the date that is 12 months after the Market Start Date, paragraph 5.83 shall be replaced with:
- 5.83 Following calculation of the values for EAuh, MSQuh, DQuh and MGuh as above, settlement for each Interconnector Unit will otherwise be conducted in accordance with Section 4. No Trading Payments, Trading Charges, Capacity Payments or Capacity Charges shall be calculated in respect of any Interconnector Residual Capacity Unit or any Interconnector Error Unit and no Invoices or Self Billing Invoicet Notes in respect of such payments or charges shall be submitted in respect of such Units.

- 7.24 Until the date that is 12 months after the Market Start Date, paragraph 5.143 shall be replaced with:
- 5.143 Intentionally blank.
- 7.25 Until the date that is 12 months after the Market Start Date, paragraph 5.144A shall be replaced with:
- 5.144A For the purposes of calculation of Make Whole Payments (MWP_u) for Generator Units *u* which are Under Test in any Trading Period *h* as set out in paragraph 4.109, the values of Market Offer Price (MOP_u), Loss-Adjusted Market Schedule Quantity Cost Correction (MSQCCLF_u), Market No Load Cost (MNL_u) and Market Start Up Cost (MSUC_u) shall be set by the Market Operator to equal zero.
- 7.26 Until the date that is 12 months after the Market Start Date, paragraph 6.31A shall be replaced with:
- 6.31A [The timescales set out in paragraphs 6.32 and 6.33 may need to be developed further following production testing of the systems]
- 7.27 Until the date that is 12 months after the Market Start Date, paragraph 6.32 shall be replaced with:
- 6.32 [Invoicing and Self Billing Invoices for Capacity Payments and Capacity Charges shall be produced in accordance with the following:
1. Ex-Post Indicative Settlement Statements for Capacity Payments and Capacity Charges shall, in respect of each Capacity Period, be produced and issued to all Participants in respect of their Units by 17:00 on CP+1WD.
 2. The Data Verification Period for Capacity Payments and Capacity Charges commences at the time of issue of the Ex-Post Indicative Settlement Statements and ends at 17:00 on CP+4WD.
 3. Initial Settlement Statements, Invoices and Self Billing Invoices for Capacity Payments and Capacity Charges shall, in respect of each Capacity Period, be produced and issued to all Participants in respect of their Units by 12:00 on CP+5WD.]
- 7.28 Until the date that is 12 months after the Market Start Date, paragraph 6.33 shall be replaced with:
- 6.33 [Payment shall be in accordance with the following:
1. Each Ex-Post Indicative Settlement Statement, Initial Settlement Statement, shall be based on the data then available to the Market Operator at the time of its production.
 2. Each Invoice and Self Billing Invoice shall include the amount of all applicable charges and payments.
 3. Any invoiced Participant shall pay each Invoice in full without set-off, deduction, or counterclaim (except as otherwise expressly provided for in the Code) by paying the amount due into the SEM Trading Clearing Account or SEM Capacity Clearing Account as

applicable for full value by the Invoice Due Date. The Invoice Due Date is 12:00, 3 Working Days after the Invoice is issued.

4. The Market Operator shall, subject to the provisions of the Code, pay each Self Billing Invoice to any Participant who is an SEM Creditor by paying the amount due from the SEM Trading Clearing Account or SEM Capacity Clearing Account as applicable to the SEM Creditor's designated bank account or bank accounts for full value by the Self Billing Invoice Due Date except as otherwise provided for in the Code. The Self Billing Invoice Due Date is 17:00, 4 Working Days after the Self Billing Invoice is issued.

- 7.29 Until the date that is 12 months after the Market Start Date, paragraph 6.33E shall be replaced with:

6.33E If the Shortfall is not paid in full by 12:00 on the next Working Day after the Invoice Due Date, then:

1. the amount of Shortfall shall become an Unsecured Bad Debt for the purposes of this Code; and
2. paragraphs 6.33F-L shall apply as appropriate.

- 7.30 Until the date that is 12 months after the Market Start Date, paragraph 6.33F.2 shall be replaced with:

6.33F.2 Where a Participant has an Unsecured Bad Debt relating to any Trading Period(s) then, without prejudice to the Market Operator's rights or obligations under the Code and notwithstanding any other provisions of the Code, the Market Operator shall procure that Self Billing Invoice relating to the Trading Period(s) affected by such Unsecured Bad Debt shall be adjusted by a reduction in the amount payable to each affected SEM Creditor ("Reduced Participant") pro-rated in accordance with the individual respective proportionate entitlement of each Reduced Participant in the applicable funds available relating to the Trading Period(s) concerned in the SEM Trading Clearing Accounts or SEM Capacity Clearing Accounts as appropriate for payment of the relevant Unsecured Bad Debt in accordance with the Code and the Market Operator shall issue the appropriate adjusted Self Billing Invoices ("Debit Notes") to the applicable Participants ("the Reduced Participants"). The Market Operator shall pay each Debit Note in accordance with the Code. The Market Operator shall use reasonable endeavours to notify the SEM Creditors in advance of making any reductions as provided for above.

- 7.31 Until the date that is 12 months after the Market Start Date, paragraph 6.33G shall be replaced with:

6.33G Where the Market Operator partially or fully recovers any Unsecured Bad Debt, the Market Operator shall procure the payment of any such monies into the relevant SEM Trading Clearing Account or SEM Capacity Clearing Account as applicable. Then, the Market Operator, shall issue an appropriate adjusted Debit Note ("Adjusted Debit Note") to each Reduced Participant for an amount pro-rated to the individual respective proportionate entitlement of each Reduced Participant in

the amount of the relevant Unsecured Bad Debt recovered relating to the Trading Period(s) concerned with the issue of the Self Billing Invoices for the then next immediate Billing Period or Capacity Period. The Market Operator shall pay each such Adjusted Debit Note in accordance with the Code.

7.32 Until the date that is 12 months after the Market Start Date, paragraph 6.33P shall be replaced with:

6.33P Subject to paragraphs 6.23N, 6.33E, 6.33F.2, 6.33G, 6.33M and 6.33N, all payments under this section 6 shall be made on the basis that a Participant shall only be entitled to claim reimbursement of an overpayment made by it (whether to or through the Market Operator) to another Party pursuant to the Code if, and then only to the extent that the aggregate amounts paid by the Participant in respect of the relevant Payment Due Date exceed the total amounts payable by that Participant to SEM Creditors in respect of that Payment Due Date together with all amounts (if any) overdue by that Participant in respect of periods prior to the relevant Payment Due Date.

7.33 Until the date that is 12 months after the Market Start Date, paragraph 6.37 shall be replaced with:

6.37 Each Settlement Rerun Statement, will be in the same format as the Initial Settlement Statement. The Settlement Rerun Statement must show the data from the previous Settlement Statement where unchanged and the appropriate updated data otherwise.

7.34 Until the date that is 12 months after the Market Start Date, paragraph 6.101 shall be replaced with:

6.101 The Fixed Market Operator Charge shall not apply to Interconnector Units or to Interconnector Error Units or to Interconnector Residual Capacity Units.

7.35 Until the date that is 12 months after the Market Start Date, paragraph 6.118 shall be replaced with:

6.118 The Unsecured Bad Debt Energy Charge (UBDECpb) to Participant p for Billing Period b for its registered Generator Units shall be calculated as follows:

$$\text{if } \left(\sum_p \left[\text{Max} \left\{ \sum_{uin p} \left(MWPub + \sum_{d in b} DAYPUud \right), 0 \right\} \right] \neq 0 \right) \text{ then}$$

$$UBDECpb = \left(\frac{UBEDb}{\sum_p \left[\text{Max} \left\{ \sum_{uin p} \left(MWPub + \sum_{d in b} DAYPUud \right), 0 \right\} \right]} \right) \times$$

$$\text{Max} \left\{ \sum_{uin p} \left(MWPub + \sum_{d in b} DAYPUud \right), 0 \right\}$$

else $UBDECpb = 0$

Where

1. UBEDb is the actual amount of Unsecured Bad Energy Debt for a Billing Period b;
2. DAYPUud is the total of all Payments made to Generator Unit u for Settlement Day d;
3. MWPub is the Make Whole Payment in respect of Generator Unit u in Billing Period b;
4. $\sum_{u \text{ in } p}$ is a summation over all Generator Units u registered to Participant p;
5. $\sum_{d \text{ in } b}$ is a summation over Settlement Days d for Billing Period b;
6. \sum_p is a summation over all Participants.

7.36 Until the date that is 12 months after the Market Start Date, paragraph 6.122 shall be replaced with:

6.122 The Unsecured Bad Debt Capacity Charge (UBDCCpc) to Participant p in Capacity Period c for its registered Generator Units will be calculated as follows:

$$\text{if } \left[\sum_p \left(\text{Max} \left\{ \left(\sum_{u \text{ in } p} \text{CPPuc} \right), 0 \right\} \right) \neq 0 \right] \text{ then}$$

$$\text{UBDCCpc} = \left(\frac{\text{UBCDc}}{\sum_p \left(\text{Max} \left\{ \left(\sum_{u \text{ in } p} \text{CPPuc} \right), 0 \right\} \right) \right)} \right) \times \text{Max} \left\{ \left(\sum_{u \text{ in } p} \text{CPPuc} \right), 0 \right\}$$

else UBDCCpc = 0

Where

1. UBDCd is the actual amount of Unsecured Bad Capacity Debt for a Capacity Period c;
2. CPPuc is the Capacity Payment for a Generator Unit u for Capacity Period c;
3. $\sum_{u \text{ in } p}$ is a summation over all Generator Units u registered to Participant p;
4. \sum_p is a summation over all Participants p.

7.36A Until the date that is 12 months after the Market Start Date, paragraph 6.148 shall be replaced with:

6.148 The Market Operator shall recalculate the Required Credit Cover, as provided for pursuant to the rules in the paragraphs 6.168-6.171C and Agreed Procedure 9 "Management of Credit Cover and Credit

Default”, for each Participant every Working Day and shall send to any Participant which reaches its Warning Limit or which is required to provide additional Credit Cover the results of its recalculation of that Participant’s Required Credit Cover by 17:00 on that Working Day. The Market Operator shall send to each Participant the results of its recalculation of that Participant’s Required Credit Cover by 17:00 on the day of the preparation of the Invoices for each Billing Period.

7.37 Until the date that is 12 months after the Market Start Date, paragraph 6.171A to 6.171C shall be replaced with:

6.171A The Required Credit Cover (RCCGpr) for each Participant p in respect of its Generator Units in respect of the Settlement Risk Period r is calculated as follows:

$$RCCGpr = \left(\left(AGE_{pf} + UPEG_{pg} - \sum_{a \text{ in } p} \sum_{h \text{ in } g} (SSREA_{aph} + SSRCA_{aph}) \right) x (-1) \right) + VAT_{pr}$$

Where:

1. AGE_{pf} is the Actual Exposure for Participant p in respect of its Generator Units for the Actual Exposure Period f;
2. UPEG_{pg} is the Undefined Potential Exposure in the Historical Assessment Periods to be applied for the Undefined Exposure Period g for Participant p in respect of its Generator Units;
3. SSREA_{aph} is the Settlement Reallocation Energy Amount for Participant p for its registered Generator Units for Trading Period h defined in Settlement Reallocation Agreement a;
4. SSRCA_{aph} is the Settlement Reallocation Capacity Amount for Participant p for its registered Generator Units for Trading Period h defined in Settlement Reallocation Agreement a;
5. VAT_{pr} is the applicable VAT charge for the Participant p in Settlement Risk Period r;

6. $\sum_{a \text{ in } p}$ is a summation of all Settlement Reallocation Agreements a registered to Participant p in respect of its registered Units;

7. $\sum_{h \text{ in } g}$ is a summation over all Trading Periods h in Undefined Exposure Period g comprising the Undefined Exposure Periods for both Billing Periods and Capacity Periods.

6.171B Intentionally blank.

6.171C The Required Credit Cover (RCCpr) for each Participant p in respect of its Units in respect of the Settlement Risk Period r is calculated as follows:

$$RCCpr = RCCSpr + \text{Max}(RCCGpr, 0) + \sum_{v \text{ in } p} FCRSy + \sum_{u \text{ in } p} FCRGy$$

Where:

1. $RCCSpr$ is the Required Credit Cover for each Participant p in respect of its Supplier Units in respect of the Settlement Risk Period r ;
2. $RCCGpr$ is the Required Credit Cover for each Participant p in respect of its Generator Units in respect of the Settlement Risk Period r ;
3. $FCRSy$ is the Fixed Credit Requirement for Year y for a Participant in respect of each of its Supplier Units;
4. $FCRGy$ is the Fixed Credit Requirement for Year y for a Participant in respect of each of its Generator Units;
5. $\sum_{v \text{ in } p}$ is a summation over all Supplier Units registered to Participant p ;
6. $\sum_{u \text{ in } p}$ is a summation over all Generator Units registered to Participant p .

7.38 Until the date that is 12 months after the Market Start Date, paragraph 6.189A to 6.189B shall be replaced with:

6.189A The Market Operator shall, as a part of the determination of Settlement for each Billing Period and Capacity Period, determine whether any Participant has, in respect of its Generator Units, entered into Settlement Reallocation Agreements that, in total exceed the Trading Payments or Capacity Payments due to that Participant in respect of those Generator Units for that Billing Period or Capacity Period as applicable. For any such Participant, the Market Operator shall cancel a sufficient quantity of Settlement Reallocation Agreements such that the remaining Settlement Reallocation Agreements do not in total exceed the Trading Payments or Capacity Payments due to that Participant in respect of that Participant's Generator Units for that Billing Period or Capacity Period as applicable. In cancelling any such Settlement Reallocation Agreements, the Market Operator shall consider the Settlement Reallocation Agreements in the order in which the relevant Settlement Reallocation Requests were lodged with the Market Operator. The Market Operator then shall cancel such Settlement Reallocation Agreements in turn until those remaining in total no longer exceed the calculated Trading Payments or Capacity Payments due to that Participant in respect of its Generator Units for that Billing Period or Capacity Period as applicable.

6.189B The Market Operator shall, as a part of the determination of Settlement for each Billing Period and Capacity Period, determine whether any Participant has, in respect of its Supplier Units, entered into Settlement Reallocation Agreements that, in total exceed the Trading Charges or Capacity Charges to be paid in respect of those Supplier Units for that Billing Period or Capacity Period as applicable. For any such Participant, the Market Operator shall cancel a sufficient quantity of Settlement Reallocation Agreements such that the

remaining Settlement Reallocation Agreements do not in total exceed the Trading Charges or Capacity Charges to be paid in respect of that Participant's Supplier Units for that Billing Period or Capacity Period as applicable. In cancelling any such Settlement Reallocation Agreements, the Market Operator shall consider the agreements in the order in the relevant Settlement Reallocation Agreements were lodged with the Market Operator. The Market Operator shall then cancel such agreements in turn until those remaining in total no longer exceed the calculated Trading Charges or Capacity Charges due from that Participant in respect of its Supplier Units for that Billing Period or Capacity Period as applicable.

- 7.38A Until the date that is 12 months after the Market Start Date, Glossary Definitions for Minimum Interconnector Import Level and Minimum Interconnector Export Level shall be replaced with:

Minimum Interconnector Import Level means the level (expressed as a number in MW which is positive, including zero) the value of which relates to the minimum stable level at which that Interconnector may be dispatched to import energy. A value of zero is equated with the case in which no such minimum level applies. A value which is greater than zero means that the Interconnector may not be dispatched at any level strictly between zero and the Minimum Interconnector Import Level. The Interconnector Registration Data separately records whether or not the Interconnector may be dispatched at zero;

and

Minimum Interconnector Export Level means the level (expressed as a number in MW which is negative or zero), the absolute value of which relates to the minimum stable level at which that Interconnector may be dispatched to export energy. A value of zero is equated with the case in which no such minimum level applies. A value which is less than zero means that the Interconnector may not be dispatched at any level strictly between zero and the Minimum Interconnector Export Level. The Interconnector Registration Data separately records whether or not the Interconnector may be dispatched at zero.

- 7.39 Until the date that is 12 months after the Market Start Date, paragraphs D.4, D.4A and D.4B of Appendix D shall be replaced with:

D.4 [Intentionally blank.]

D.4A [Intentionally blank.]

D.4B [Intentionally blank.]

- 7.40 Until the date that is 12 months after the Market Start Date, paragraphs E.2.12, E.5 and E.6 of Appendix E shall be replaced with:

E.2.12 [Intentionally blank.]

E.5 [Intentionally blank.]

E.6 [Intentionally blank.]

7.41 Until the date that is 12 months after the Market Start Date, the first line of Table 18b in Appendix E shall be replaced with:

Sender	Relevant System Operator
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7.42 Until the date that is 12 months after the Market Start Date, paragraphs 2.1, 2.2, 10.5, 10.6, 10.11, 11.4, 11.8, 12.3 shall be replaced with:

F.2.1 Generator Unit Energy Settlement Statements

F.2.2 Supplier Unit Energy Settlement Statements

F.10.5 Intentionally blank.

F.10.6 Intentionally blank.

F.10.11 Intentionally blank.

F.11.4 Intentionally blank.

F.11.8 Intentionally blank.

F.12.3 Intentionally blank

7.43 Until the date that is 12 months after the Market Start Date, the following row in part 4 of Table 47 in Appendix K shall be regarded as “Intentionally Blank”:

[Deletion of one row within] Table 47 – Data publication list part 4: Updated Daily in Advance of Gate Closure:

Time	Item / Data Record	Term	Subscript
Before 09:30	Forecast of Ex-Post Loss of Load Probability for each Trading Period in the forthcoming 31 Trading Days	Φ	h