

# **The Single Electricity Market (SEM)**

## **Trading and Settlement Code**

**Version 1.3**

**Draft Legal Text  
Glossary and Appendices**

**Final Consultation Document**

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## GLOSSARY

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

<b>Accepted</b>	means, in relation to data, that data which the Market Operator is required to use under Section 3 of the Code either because (i) it is the most recently received Validated Data Transaction or (ii) the Market Operator is required to use Default Data in accordance with Section 3.
<b>Accession</b>	means becoming a Party to the Code in accordance with the Accession Process.
<b>Accession Deed</b>	means the agreement pursuant to which an Applicant becomes a party to the Framework Agreement and, consequently, becomes bound by the Code, and which shall be in the form set out in Appendix T.
<b>Accession Fee</b>	means a fee to be paid to the Market Operator by each Applicant for Accession to the Code to cover the Market Operator costs incurred in assessing the application.
<b>Accession Process</b>	means the Accession Process set out at paragraphs 2.10 to 2.14A.
<b>Active Interconnector Unit Capacity Holding</b>	means the Active Interconnector Unit Import Capacity Holding and the Active Interconnector Unit Export Capacity Holding for each Interconnector Unit as appropriate.
<b>Active Interconnector Unit Capacity Holding Data</b>	means the set of data submitted by the Interconnector Administrator to the Market Operator and individually to Interconnector Users detailing the Interconnector Unit Capacity Holding scaled to the Available Transfer Capacity. The associated Data Transaction is detailed in Appendix E.
<b>Active Interconnector Unit Export Capacity Holding</b>	means the Interconnector Unit Export Capacity Holding after scaling to Maximum Export Available Transfer Capacity.
<b>Active Interconnector Unit Import Capacity Holding</b>	means the Interconnector Unit Export Capacity Holding after scaling to Maximum Import Available Transfer Capacity.
<b>Active Power</b>	means the product of voltage and the in-phase component of alternating current measured in units of Watts and standard multiples thereof.
<b>Actual Exposure</b>	means the credit exposure resulting from Invoices that have been issued but not yet paid, and from amounts in Settlement Statements for which no Invoice has yet been issued.
<b>Actual Exposure Period</b>	means the period from the issuing of the last Invoice for Trading Charges for which no payment is outstanding to the end of the most recent Trading Period included in any Settlement Statement relating to Trading Charges.
<b>Adjusted Participant</b>	means, in relation to the calculation of Required Credit Cover, a Participant as described in paragraph 6.164.

<b>Administered Price</b>	means the System Marginal Price for a Trading Period under circumstances of Administered Settlement.
<b>Administered Quantity</b>	means the Market Schedule Quantity for a Generator Unit for a Trading Period under circumstances of Administered Settlement.
<b>Administered Schedule</b>	means a schedule which sets out Administered Prices for each Trading Period and Administered Quantities for each Generator Unit in each Trading Period in the event of Administered Settlement.
<b>Administered Settlement</b>	means the process of setting an Administered Price or an Administered Schedule as set out in Section 6 of the Code.
<b>Affected Party</b>	means a Party, other than the Market Operator, affected by Force Majeure as more particularly set out in paragraph 2.297.
<b>Affiliate</b>	means in relation to any Party, any holding company or subsidiary or any subsidiary of a holding company of the relevant Party, in each case within the meaning of section 155 of the Companies Act 1963 (Ireland) for a Party which is a company registered in Ireland, and section 4 of the Companies (Northern Ireland) Order 1986 (Northern Ireland) for a Party which is company registered in Northern Ireland.
<b>Aggregate Export Capacity</b>	means the declared total ability of an Interconnector to export power from the Pool, submitted as part of Interconnector Registration Data.
<b>Aggregate Import Capacity</b>	means the declared total ability of an Interconnector to import power into the Pool, submitted as part of Interconnector Registration Data.
<b>Aggregate Interconnector Ramp Rate</b>	means the maximum Ramp Up Rate or Ramp Down Rate as appropriate for an Interconnector determined as the lesser of the maximum Ramp Rate which can be accommodated by the Interconnector itself or the maximum Ramp Rate associated with that Interconnector which can be accommodated by the Transmission System or Distribution System to which that Interconnector is Connected. The Interconnector must operate at or within its Aggregate Interconnector Ramp Rate in all circumstances.
<b>Aggregate Modified Interconnector Unit Nomination</b>	means, for each Interconnector in each Trading Period, a value in MW which is calculated as the sum of the Modified Interconnector Unit Nominations for each Interconnector Unit on that Interconnector.
<b>Aggregate Modified Interconnector Unit Nomination Data Transaction</b>	is a Data Transaction detailed in Appendix D.
<b>Agreed Procedure Modification Proposal</b>	means any Modification Proposal which relates solely to the modification of an Agreed Procedure and not to any other part of the Code.
<b>Agreed Procedure(s)</b>	means the detailed procedures to be followed by Parties in performing their obligations and functions under the Code.

<b>Analysis Percentile Parameter</b>	means the percentage degree of statistical confidence that Actual Exposures, once determined for each Participant, will fall below the estimate of Undefined Potential Exposure.
<b>Ancillary Code Document</b>	means a document which is ancillary to the Code and which is approved by either or both of the Regulatory Authorities or the Market Operator relating to the Pool.
<b>Annual Capacity Exchange Rate</b>	means the exchange rate between Pounds sterling and Euro to be applied for a Year.
<b>Annual Capacity Payment Sum</b>	means the sum in Euro that shall form the basis for the calculation of Capacity Payments and Capacity Charges in each Capacity Period during a Year determined in accordance with paragraph 4.74.
<b>Annual Load Forecast</b>	means the full Demand forecast for the Single Electricity Market (based on an aggregation of forecasts for each Jurisdiction) which describes the Demand forecast for each Trading Period in a Year. The forecast will reflect the Demand to be met by Generator Units (other than Autonomous Generator Units that are not Wind Power Units) at the point where the Units are Connected and will include Transmission Losses but are net of Unit Load for Generator Units. The associated Data Transaction is detailed in Appendix E.
<b>Annual Peak Demand Forecast</b>	as defined within Appendix M.
<b>Appendix</b>	means an Appendix to the Code and the term Appendices shall be interpreted accordingly.
<b>Applicable Laws</b>	means any legislation, statutory instrument, regulation, or order as is applicable to a Party.
<b>Applicant</b>	means a person wishing to accede to the Code as provided for and set out in paragraphs 2.10 to 2.14A.
<b>Applicable Interim Period</b>	means in respect of each of the Interim Provisions set out in Section 7, the period for which that provision shall apply in place of the Original Provision, as specified in paragraph 7.4.
<b>Associated Supplier Unit</b>	means a Supplier Unit which is recorded to a Trading Site and has its Demand settled on a gross basis with the Generator Unit(s) on that Trading Site under the rules specified in the Code.
<b>Audit Report</b>	means the report prepared by the Market Auditor in accordance with paragraph 2.96.
<b>Autonomous Generator Unit</b>	means a Generator Unit that is not Dispatchable or subject to Active Power control by the relevant System Operator.
<b>Autoproducer Site</b>	means a Demand Site where the Demand is not solely for the purpose of Generation (i.e. Demand is not just associated with Unit Load) which contains one or more Generator Units which are not Demand Side Units.
<b>Autoproducer Unit</b>	means a Generator Unit within an Autoproducer Site, as described in paragraphs 5.111 to 5.116.

<b>Availability</b>	means a Generator Unit's capability in MW to deliver Active Power or a Demand Side Unit's capability of reducing the Active Power consumed on the Trading Site.
<b>Availability Profile</b>	means the arithmetic average Availability for each Trading Period within the Trading Day for each Generator Unit, calculated as described in Appendix N.
<b>Available Transfer Capacity</b>	means the available transfer capacity (consisting of the Maximum Export Available Transfer Capacity and the Maximum Import Available Transfer Capacity) for each Interconnector.
<b>Average System Frequency</b>	means the average system frequency for each Trading Period which is submitted in accordance with paragraph 4.112A.
<b>Balancing Cost</b>	means for each Billing Period the difference between the total sum invoiced to Participants and the total sum included in all Self Billing Invoices for such Billing Period. In the determination of the Balancing Cost all sums shall be expressed in Euro prior to any conversion to sterling for submission to the relevant Participants.
<b>Bank</b>	means a holder of a relevant Banking Licence issued under Section 9 of the Central Bank Act 1971 in Ireland or an undertaking regulated by the Financial Services Authority to take deposits under the Banking Act 1987 in the United Kingdom or any clearing bank approved in the European Union.
<b>Bank Eligibility Requirements</b>	as defined in paragraph 6.136C.
<b>Bank Mandate</b>	means the instructions form relating to the terms on which the cash in a SEM Collateral Reserve Account will be held.
<b>Banking Licence</b>	means a licence issued under Section 9 of the Central Bank Act 1971 in Ireland or an undertaking regulated by the Financial Services Authority to take deposits under the Banking Act 1987 in the United Kingdom or any clearing bank approved in the European Union.
<b>BETTA</b>	means the British Electricity Trading and Transmission Arrangements as may be varied or supplemented from time to time.
<b>Billing Period Currency Cost</b>	means the cost incurred by, or the benefit to, the Market Operator that is based on the difference in Currency rates between Gate Closure and the actual payment of Invoices and Self Billing Invoices.
<b>Billing Period or BP</b>	means a period of one Week, commencing on Sunday at 00:00.
<b>Block Load</b>	means the level of Output that a Generator Unit immediately produces when Synchronising.
<b>Block Load Cold</b>	means the Block Load during a Cold Start.
<b>Block Load Hot</b>	means the Block Load during a Hot Start.
<b>Block Load Warm</b>	means the Block Load during a Warm Start.

<b>Capacity Charge</b>	means the charge in respect of Supplier Units in each Trading Period calculated in accordance with paragraph 4.97.
<b>Capacity Payment</b>	means the payments in respect of Generator Units in each Trading Period on the basis of their Eligible Availability, calculated in accordance with paragraph 4.82.
<b>Capacity Period</b>	means one calendar month, starting at midnight on the first calendar day of each month.
<b>Capacity Period Currency Cost</b>	means the cost incurred by, or the benefit to, the Market Operator based on the difference in Currency rates between the annual determination of capacity costs in respect of Capacity Payments and Capacity Charges and the actual payment of Invoices and Self Billing Invoices.
<b>Capacity Period Payment Sum</b>	means, in relation to any Capacity Period, that part of the Annual Capacity Payment sum for a particular Year that shall apply in the specified Capacity Period in that Year determined in accordance with paragraph 4.74.
<b>Classification</b>	means the process of classification of Units into one of the categories defined in Section 5: Special Units.
<b>Clearing Bank</b>	means a Bank that uses a central clearing house in all its dealings with other Banks.
<b>CMS Data Transaction</b>	is a Data Transaction made by a Party or Participant in accordance with Appendices C, E and G.
<b>Code</b>	means this Trading and Settlement Code including the Agreed Procedures and Appendices as amended from time to time or otherwise modified in accordance with the Code.
<b>Code Objectives</b>	means the objectives of the Code as set out in paragraph 1.5.
<b>Cold Start</b>	means any Synchronisation of a Generator Unit that has previously not been Synchronised for a period of time equal to or longer than its Accepted Warm Cooling Boundary. This data is provided within the submission of Technical Offer Data as described in Appendix C.
<b>Cold Start Up Cost</b>	means Start Up Costs associated with a Cold Start.
<b>Commencement Date</b>	means the commencement date of the Code as established [pursuant to xxx].
<b>Commencement Notice</b>	means the Notice issued by the Market Operator as set out in paragraph 2.32.
<b>Commercial Offer Data</b>	means a Data Transaction including, without limitation, Price Quantity Pairs, Nomination Profiles, Start Up Costs and No Load Cost submitted to the Market Operator for each Trading Day for each Generator Unit. The associated Data Transactions are detailed in Appendix C.
<b>Commission or Commission for Energy Regulation or CER</b>	means the Commission for Energy Regulation as established pursuant to the Electricity Regulation Act, 1999 or any successor body.
<b>Communication Channel</b>	means one of three methods of transferring data contained in Data Transactions as detailed in paragraph 3.3.



<b>Communication Channel Qualification</b>	means the requirements for qualification of a Communication Channel as detailed in paragraph 3.2A.
<b>Communication Channel Type</b>	means a specific Communication Channel as detailed in paragraph 3.3.
<b>Competent Authority</b>	means the Irish Government and Her Majesty's Government, the Cabinet of the Northern Ireland Assembly (where not prorogued), the Department for Communications, Marine and Natural Resources, Her Majesty's Department for Trade and Industry, the Department of Enterprise, Trade and Industry Northern Ireland (DETINI), the Commission, NIAER, the Irish Competition Authority, the Office for Fair Trading of the United Kingdom, the Competition Commission of the United Kingdom, the Competition Appeals Tribunal of the United Kingdom or any national or supra-national authority, department, minister, court, tribunal or public or statutory person being of a public nature of Ireland, the United Kingdom or of the European Union (including the European Commission, the European Parliament and the European Courts of First Instance and of Justice) and any international or supranational body, with power and competence to make binding decisions, awards, rulings, judgments or decisions.
<b>Confidential Information</b>	has the meaning given in paragraph 2.312.
<b>Confirmation Notice</b>	means a communication from the Market Operator issued on receipt of a CMS Data Transaction.
<b>Connected</b>	means where a Generator Unit or a constituent of a Supplier Unit as applicable is connected to a Transmission System or Distribution System and "Connection" shall be construed accordingly.
<b>Connection Agreement</b>	means in Ireland, the agreement between a Participant and a System Operator or Distribution System Operator as appropriate specifying terms and conditions for connection to the Transmission System or Distribution System and physical and technical parameters for that Connection; and in Northern Ireland, the agreement between a Participant and a System Operator or Distribution System Operator as appropriate specifying terms and conditions connection to the Transmission System or Distribution System and physical and technical parameters for that Connection.
<b>Constraint Payments</b>	means a payment in respect of a Generator Unit based upon the difference its Dispatch Production Cost and its Schedule Production Cost.
<b>Contiguous Operation Period</b>	mean a set of Trading Periods in which a Price Maker Generator Unit has a Market Schedule Quantity constantly greater than zero within the period spanned by the Optimisation Time Horizon and the most recent Valid MSP Solution for the preceding Trading Day or Days.
<b>Contiguous Site</b>	means one or more buildings or structures occupied or used by a person for production or consumption of electricity where each building or structure is adjacent to, or contiguous with the other building or structure and containing adequate metering to define the complete electrical export or import of that contiguous site.

<b>Credit Assessment Price</b>	means a price proposed annually and used in the calculation of Required Credit Cover for a Party under the Code.
<b>Credit Assessment Volume</b>	means a forecast of Output or Demand in respect of a New or Adjusted Participant's Supplier or Generator Units based upon information provided by the Participant and used in the calculation of the Participant's Required Credit Cover.
<b>Credit Call</b>	means the issue of a request to a Participant's Credit Cover Provider to draw down all or part of a Participant's Posted Credit Cover.
<b>Credit Cover</b>	means the credit cover required of and provided by a Participant in a form which meets the requirements set out in Section 6.
<b>Credit Cover Adjustment Trigger</b>	means the parameter used by a Participant to determine when it should report to the Market Operator expected future changes in its total metered quantities or in its total Settlement Reallocations such that it should be designated an Adjusted Participant.
<b>Credit Cover Increase Notice</b>	means a Notice issued in accordance with paragraph 6.152.
<b>Credit Cover Notice</b>	means a Credit Cover Increase Notice or a Credit Cover Withdrawal Notice as appropriate.
<b>Credit Cover Withdrawal Notice</b>	means a Notice issued in accordance with paragraph 6.152A.
<b>Credit Cover Provider</b>	means either the providers of a Participant's Letters of Credit or the SEM Bank as provider of the Participant's SEM Collateral Reserve Account or all of them as appropriate.
<b>Credit Data</b>	means the set of data Issued by the Market Operator to each Participant, that sets out the Credit Cover obligations of that Participant.
<b>Credited Participant</b>	means the Participant who, as part of a Settlement Reallocation Agreement, is receiving a transfer of funds from the Debited Participant.
<b>Cross Border Supply</b>	means any electricity generated in one Jurisdiction and consumed in the other Jurisdiction.
<b>Cross-Jurisdiction Power Flow</b>	means the total MWh per Trading Period flow between Northern Ireland and Ireland summated for each cross-jurisdiction transmission line. Such flows shall be considered to be positive in the direction from Northern Ireland to Ireland. The associated Data Transaction is detailed in Appendix G.
<b>Currency</b>	means Euro in Ireland and Pounds sterling in Northern Ireland and "Currencies" shall be construed accordingly.
<b>Currency Cost</b>	means the Billing Period Currency Cost or the Capacity Period Currency Cost or both, as the context requires.
<b>Currency Zone</b>	means the Jurisdiction in which a Unit is Connected.
<b>Data Processing Entity</b>	means a person that submits Data Transactions on a Participant's behalf as provided for in Section 3 of the Code.

<b>Data Protection Legislation</b>	means the Data Protection Acts, 1988 and 2003 (Ireland) and the Data Protection Act, 1998 (United Kingdom) and, in each case, all regulations, statutes and instruments made thereunder, as may be amended from time to time and any other legislation having effect in Ireland or Northern Ireland which implements Directive 95/46/EC and any amendment or replacement thereto.
<b>Data Query</b>	means a query made by a Participant in relation to one or more Settlement Items in an Ex-Post Indicative Settlement Statement in accordance with paragraph 6.42.
<b>Data Record</b>	means a set of data fields containing field-level information within a Data Transaction complying to field-level rules.
<b>Data Transaction</b>	means a set of data included in a communication made by a Party to the Market Operator, or by the Market Operator to a Party, which is of a type set out in any of Appendices B-J, and which is made in accordance with the provisions of Appendices B-J and Agreed Procedure 4 "Data Transaction Submission and Validation".
<b>Data Verification Period</b>	means the period when Participants have the opportunity to query any data included on the Ex-Post Indicative Settlement Statement in accordance with paragraphs 6.30 and 6.32.
<b>De Minimis Threshold</b>	shall have the meaning set out in paragraph 2.14A.
<b>Debit Note</b>	means a Self Billing Invoice issued to a SEM Creditor following and relating to the default of a Participant in relation to its payment of an Invoice and a call on that Participant's Credit Cover.
<b>Debited Participant</b>	means the Participant who, as part of a Settlement Reallocation Agreement, is transferring to another Participant some or all of the money to due to it from the Market Operator.
<b>Deed of Assignment</b>	means the form of Deed of Assignment in the form set out in Appendix S.
<b>Default</b>	means any breach by a Party of any provision of the Code or the Framework Agreement.
<b>Default Data</b>	means the standing Commercial Offer Data and Technical Offer Data provided by a Participant on registration of each of its Units, but not Interconnector Units, as updated from time to time in accordance with the Code.
<b>Default Interest</b>	means a rate of interest being two percent (2%) above LIBOR.
<b>Default Notice</b>	means a Notice issued by the Market Operator specifying a Default by a Party to the Code.
<b>Default Offer Process</b>	means a process provided by the Market Operator to create Commercial Offer Data and/or Technical Offer Data to be used in a Trading Day where no valid Commercial Offer Data or Technical Offer Data was submitted by the Participant in accordance with the Code.
<b>Defaulting Participant</b>	means a Participant which has not paid an Invoice by the due date and in respect of which a Credit Call has produced a sum which does not cover the Shortfall.

<b>Defaulting Participant Group</b>	means in relation to a Defaulting Participant, the other Participants of the Party of which it is a Participant and all the Participants of any Affiliate of that Party.
<b>Defaulting Party</b>	means a Party that is in Default.
<b>Deload Break Point</b>	means the break point which defines the shared MW boundary between the two Deloading Rates. The first Deloading Rate applies from Minimum Stable Generation to the Deload Break Point, the second Loading Rate Hot applies from the Deload Break Point to 0 MW.
<b>Deloading Rate</b>	means the rate at which a Generator Unit decreases Output below Minimum Stable Generation.
<b>Demand</b>	means the consumption of Active Power.
<b>Demand Control</b>	shall have the meaning set out in the relevant Grid Code.
<b>Demand Reduction</b>	means a controlled reduction in consumption at a Demand Site as a Demand Side Unit under instruction from the System Operator.
<b>Demand Side Unit</b>	means a Demand Site which complies with the criteria set out in paragraph 5.120 and is so registered by a Participant. A Demand Side Unit is classified as a Generator Unit under the Code.
<b>Demand Site</b>	means a single premises of a final customer connected to the Transmission System or Distribution System.
<b>Deregistration</b>	means the process whereby a Unit, or, in the case of Deregistration of all of its Units, a Participant, or an Interconnector, ceases to be registered for the purposes of participation in the Pool, and "Deregistered" and "Deregister" shall be construed accordingly.
<b>Deregistration Consent Order</b>	has the meaning set out in paragraph 2.77C.
<b>Deregistration Notice</b>	means a Notice of Deregistration issued in accordance with 6.141 6.
<b>Disclosing Party</b>	has the meaning set out in paragraph 2.313.
<b>Discount for Over Generation</b>	means a factor by which prices applied in respect of a Generator Unit which over generates by more than the Tolerance Band shall be reduced.
<b>Dispatch Instruction</b>	means an instruction given by the System Operator in relation to a Generator Unit which is Dispatchable which relates to the required level of output of Active Power or mode of operation.
<b>Dispatch Production Cost</b>	means the implied cost incurred by a Generator Unit, as determined from the Accepted Price Quantity Pairs, No Load Costs and Start Up Costs and any other relevant Commercial Offer Data and Technical Offer Data, of Output in accordance with Dispatch Instructions or Dispatch Quantities, as applicable.
<b>Dispatch Quantity</b>	means the average level of Active Power production for a Generator Unit in a Trading Period, expressed in MW, calculated as set out within this Code.
<b>Dispatch Ramp Down Rate</b>	means the Generator Unit Ramp Down Rate specified in a Dispatch Instruction, for the purpose of Appendix P only.

<b>Dispatch Ramp Up Rate</b>	means the Generator Unit Ramp Up Rate specified in a Dispatch Instruction, for the purpose of Appendix P only.
<b>Dispatch Start</b>	means, in any Trading Period where the Dispatch Instructions for a Generator Unit require it to change its level of Output from a value less than or equal to zero MW of Active Power to a value greater than zero MW, the Generator Unit has a Dispatch Start in that Trading Period. Otherwise the Generator Unit has no Dispatch Start in the Trading Period. A Generator Unit may have only one Dispatch Start within a Trading Period.
<b>Dispatch Warmth State</b>	means the calculated Warmth State (being Cold, Warm or Hot) of a Generator Unit at any point in time consistent with the Dispatch Instructions for that Generator Unit at preceding times and the definitions of Cold Start, Warm Start and Hot Start.
<b>Dispatchable</b>	means, in relation to a Generator Unit, the ability of the Generator Unit to receive and act upon an instruction given by the System Operator to the Participant's approved contact person or location to change the Output or manner of operation of the Generator Unit in accordance with the relevant Grid Code and the terms Dispatch and Dispatched shall be interpreted accordingly.
<b>Dispute</b>	means a dispute as set out in paragraph 2.239.
<b>Dispute Resolution Agreement</b>	means the agreement in the form set out in Appendix O.
<b>Dispute Resolution Board or DRB</b>	means the dispute resolution board established pursuant to paragraphs 2.253 to 2.265.
<b>Dispute Resolution Process</b>	means the process of resolving Disputes as specified in the Code.
<b>Disputed Event</b>	means an event, circumstance, claim, difference, Default, assertion of right or entitlement, or denial of right or entitlement in relation to which a Party seeks to raise a Dispute and in the case of a Dispute relating to a series of such events, shall mean the earliest disputed event.
<b>Disputing Party</b>	means any Party to a Dispute.
<b>Distribution Code</b>	means, in Ireland, the distribution code as defined in Section 2(1) of the ERA; and means, in Northern Ireland, the Grid Code as it pertains to the Distribution System in Northern Ireland.
<b>Distribution Connected</b>	means where a Generator Unit or a constituent of a Supplier Unit is connected to a Distribution System.
<b>Distribution Loss Adjustment Factor</b>	means the factor for each Unit in each Trading Period to adjust the Output or Demand of that Unit for the effect of Distribution Losses.
<b>Distribution Losses</b>	means losses that are incurred (or avoided) on the Distribution System as electricity is transported to (or from) the relevant boundary of the Transmission System and the Distribution System from (or to) the relevant point of connection to the Distribution System for the Generator Unit or Supplier Unit.

<b>Distribution System</b>	means, in Ireland, all electric lines and any other electric plant which the Distribution System Operator may, with the approval of the Commission specify as being part of the DSO's distribution system, and includes any electric plant, transformers and switchgear which is used for conveying electricity to final customers; and
<b>Distribution System Operator</b>	means, in Northern Ireland, the Distribution System owned and/or operated by the Distribution System Operator. means, in respect of Ireland, the legal entity being the operator for the time being of the Distribution System for Ireland, as specified in the Distribution Code, as amended or replaced from time to time, in its capacity as operator of the Irish Distribution System; and in respect of Northern Ireland, the legal entity being the operator for the time being of the Distribution System for Northern Ireland, as specified in the Northern Ireland Grid Code, as may be amended or replaced from time to time, in its capacity as the operator of the Northern Ireland Distribution System. References to the "Distribution System Operators" shall be construed accordingly.
<b>Dwell Time</b>	means the duration for which the Generator Unit must remain at that Dwell Time Trigger Point during a change in its MW Output while ramping up or down between Minimum Generation and Maximum Generation.
<b>Dwell Time Trigger Point</b>	means a constant MW level at which a Generator Unit must remain while ramping up or down between Minimum Stable Generation and Maximum Generation.
<b>Effective Date</b>	means the Trading Day from which the registration of a Unit or Units to a Participant shall be effective, as specified in a Commencement Notice issued by the Market Operator, or as deferred in accordance with paragraph 2.32A. Effective Dates are aligned to Trading Day timescales and all references to Effective Date shall apply from the start of the relevant Trading Day at 06:00.
<b>Electrical System Collapse</b>	means the situation existing when all Generation has ceased in part of the Transmission System and there is no electricity supply such that Black Start procedures as set out in the Grid Code are initiated.
<b>Eligible Availability</b>	means the level of Availability of a Generator Unit that is used for the determination of Capacity Payments in respect of the Unit.
<b>Emergency Meeting</b>	means an emergency Meeting of the Modifications Committee in accordance with paragraph 2.172A.
<b>End Point of Start Up Period</b>	means the Minimum Stable Generation level of a Generator Unit.
<b>Ending Optimisation Overlap Period</b>	means, for any given Optimisation Time Horizon and the associated run of the MSP Software, that part of the Optimisation Time Horizon which falls within the second Trading Day of the Optimisation Time Horizon.
<b>Energy Charge</b>	means any charge to be made by or to a Participant in respect energy purchased during a Billing Period calculated as the product of SMP and the relevant quantity.

<b>Energy Limit</b>	means an upper limit on the amount of energy that can be generated by an Energy Limited Generator Unit.
<b>Energy Limit Factor</b>	means a factor between zero and one, which is applied to the Energy Limit for use within the MSP Software in calculating the scheduled Output of Energy Limited Generator Units in the period between the end of the Trading Day and the end of the Optimisation Time Horizon.
<b>Energy Limit Period</b>	means the time period between the Energy Limit Start and the Energy Limit Stop.
<b>Energy Limit Start</b>	means 06:00 on the Trading Day, and shall be submitted as such.
<b>Energy Limit Stop</b>	means 06:00 on the next Trading Day, and shall be submitted as such.
<b>Energy Limited Generator Unit</b>	means a Generator Unit with a limit on the energy it can deliver over the Trading Day.
<b>Energy Limited Generator Unit Technical Characteristics Data</b>	means data submitted after the Trading Day by the System Operators in accordance with Appendix E identifying the redeclared Energy Limit for Energy Limited Generator Units.
<b>Energy Payment</b>	means any payment to be made to a Participant in respect of a Billing Period for energy sold by that Participant in the relevant Billing Period calculated as the product of SMP and the relevant quantity.
<b>Engineering Tolerance</b>	means the percentage tolerance within which a Generator Unit is deemed to be operating in accordance with its Dispatch Instruction, which is used in the calculation of Uninstructed Imbalances.
<b>Error Supplier Unit</b>	means a Supplier Unit used to ensure that Generation and Demand in each Jurisdiction (allowing for losses and net transfers between Jurisdictions) match in quantity.
<b>Euro</b>	means the currency in Ireland.
<b>Ex-Ante Indicative Market Schedule</b>	means the Ex-Ante Indicative Market Schedule for a Trading Day, produced by the Ex-Ante Indicative MSP Software Run, which will comprise the Market Schedule Quantities (MSQuh) for each Trading Period in the Trading Day for each Generator Unit <i>u</i> (excluding Autonomous Generator Units in accordance with paragraph 5.21).
<b>Ex-Ante Indicative MSP Software Run</b>	as defined within Appendix N.
<b>Ex-Ante Indicative Operations Schedule</b>	means the schedule as determined by the System Operators taking system constraints and reserve requirements into account and published day-ahead to give indicative MW outputs for the Trading Day, including Interconnector flows and pumped storage operation.
<b>Excessive Generation Event</b>	has the meaning set out in paragraph 4.50A1.
<b>Export Point</b>	means the nominal commercial point of entry to the Transmission System of the Active Power generated at a Transmission or Distribution Connected site.

<b>Ex-Post Capacity Payments Proportion</b>	means the proportion of the Annual Capacity Period Sum to be distributed into Trading Periods in the relevant Year based on the Ex-Post Loss of Load Probability ( $\phi$ ) for each Trading Period, determined at the end of the relevant Capacity Period determined in accordance with paragraph 4.74.
<b>Ex-Post Indicative Market Schedule</b>	means the Ex-Post Indicative Market Schedule for a Trading Day which will comprise the Market Schedule Quantities (MSQuh) for each Trading Period in the Trading Day for each Generator Unit $u$ (excluding Autonomous Generator Units for which the Ex-Post Indicative Market Schedule only includes Market Schedule Quantities for Trading Periods up until midnight on the Trading Day in accordance with paragraph 5.21A) as set out in paragraph 4.47A.
<b>Ex-Post Indicative MSP Software Run</b>	as defined within Appendix N.
<b>Ex-Post Indicative Settlement Statement</b>	means the Settlement Statement sent to the Participants before the Initial Settlement Statements are calculated.
<b>Ex-Post Initial Market Schedule</b>	means the Ex-Post Initial Market Schedule for a Trading Day which will comprise the Market Schedule Quantities (MSQuh) for each Trading Period in the Trading Day for each Generator Unit $u$ as set out in paragraph 4.47AA.
<b>Ex-Post Initial MSP Software Run</b>	as defined within Appendix N.
<b>Final Modification Recommendation</b>	means a recommendation by the Modifications Committee in relation to a Modification Proposal which is submitted to the Regulatory Authorities for approval as part of a Modification Recommendation Report.
<b>Final Settlement</b>	means the last Timetabled Settlement Rerun for a Trading Day.
<b>First Participation Information Notice</b>	means a notice to be submitted by a Party (or applicant, as applicable) with or prior to that Party's first Participation Notice for its first registration of a Unit or Units, in the form set out in Agreed Procedure 1 "Participant and Unit Registration and Deregistration".
<b>Fixed Capacity Payments Proportion</b>	means the proportion of the Annual Capacity Period Sum to be distributed into each Trading Period $h$ in the relevant Year based on Forecast Demand (FD $h$ ) for the Year determined in accordance with paragraph 4.74.
<b>Fixed Credit Requirements</b>	means the minimum Credit requirement for any Participant in respect of each of its Generator Units and separately in respect of each of its Supplier Units.
<b>Fixed Market Operator Charge</b>	means the fixed annual charge applied to each Generator Unit and to each Supplier Unit in respect of the Market Operator Charge.
<b>Fixed Market Operator Generator Charge</b>	means the Fixed Market Operator Charge applied to Generator Units.
<b>Fixed Market Operator Supplier Charge</b>	means the Fixed Market Operator Charge applied to Supplier Units.
<b>Force Majeure</b>	means circumstance of force majeure for the purposes of the Code as set out in paragraph 2.297.



<b>Forecast Availability Profile</b>	means a projection of Availability for a Generator Unit calculated in accordance with paragraph 4.18.
<b>Forecast Demand</b>	means a projection of Demand.
<b>Forecast Minimum Output Profile</b>	means a projection of Minimum Output for a Generator Unit calculated in accordance with paragraph 4.19.
<b>Forecast Minimum Stable Generation Profile</b>	means a projection of Minimum Stable Generation for a Generator Unit calculated in accordance with paragraph 4.20.
<b>Form of Authority</b>	means a form of authority in the form set out in Appendix R.
<b>Four Day Load Forecast</b>	means the forecast of Demand (as measured at the Trading Boundary) for each Trading Period in the next four Trading Days as forecast by the System Operators. The associated Data Transaction is detailed in Appendix E.
<b>Framework Agreement</b>	means the agreement (including any Accession Deed) under which a person becomes bound by the Code
<b>Freedom of Information Acts</b>	means the Freedom of Information Acts 1997 and 2003 and the Freedom of Information Act 2000.
<b>Function for the Determination of Capacity Payments</b>	means the methodology by which the basis for the fixed, variable and ex-post elements of Capacity Payments are calculated, as set out in Appendix M.
<b>Gate Closure</b>	means, for a Trading Day, 10:00 on the last full calendar day prior to that Trading Day.
<b>General Communication Failure</b>	means a period during which the Market Operator's Isolated Market System is operational but the normal communication interfaces between each other Party (other than the System Operators or the Meter Data Providers) and the Market Operator are unavailable, leading to a failure of all such Parties to comply with the data Submission requirements.
<b>General System Failure</b>	means a period during which the Market Operator's Isolated Market System is unable, under normal operation, to process data as required under the Code and such inability has caused or will cause the Market Operator to fail to meet any applicable deadline under the Code for (i) calculation or publication of the System Marginal Price or any component thereof for any Trading Period, or (ii) Settlement of any Unit for any Billing Period, or (iii) calculation, or publication of Capacity Payments, or the issuance of a Settlement Statement for Capacity Payments and Capacity Charges for any Capacity Period.
<b>Generation</b>	means the production of Active Power.
<b>Generation Participant</b>	means, in Section 2, Participants who have registered Generator Units other than Interconnector Error Units, Interconnector Residual Capacity Units or Demand Side Units.
<b>Generation Site</b>	means the site defined under a single Connection Agreement, or in the event that no Connection Agreement exists, a Contiguous Site containing one or more Generators.

<b>Generator</b>	means a power plant or any similar apparatus that generates electricity (including all related equipment essential to its functioning as a single entity) with capabilities for delivering energy to the Transmission System or Distribution System and which is Connected to the Transmission System or Distribution System.
<b>Generator Unit</b>	means a Generator, or other item of Dispatchable plant, registered by a Participant, or which is the subject of an application for registration, under the Code. For the purposes of the Code a Generator Unit may be any one of the following types, without limitation: Autonomous Generator Unit, Demand Side Unit, Energy Limited Generator Unit, Hydro-electric Generator Unit, Interconnector Unit, Interconnector Error Unit, Interconnector Residual Capacity Unit, Netting Generator Unit, Pumped Storage Unit, Run-of-River Hydro Unit or Wind Power Unit.
<b>Generator Unit Capacity Settlement Statement</b> <b>(Data Transaction)</b>	is a Data Transaction detailed in Appendix F.
<b>Generator Unit Energy Settlement Statement</b> <b>(Data Transaction)</b>	is a Data Transaction detailed in Appendix F.
<b>Generator Unit Self Billing Invoices</b> <b>(Data Transaction)</b>	is a Data Transaction detailed in Appendix F.
<b>Generator Unit Technical Characteristics Data</b>	means data submitted after the Trading Day by the System Operators in accordance with Appendix E identifying the technical characteristics of a Generator Unit including Outturn Availability, Outturn Minimum Stable Generation and Outturn Minimum Output.
<b>Generator Unit Under Test</b>	means the status of a Generator Unit which has Under Test status in accordance with paragraphs 5.133B and 5.133C.
<b>Generic Settlement Class</b>	means the settlement categories specified in accordance with paragraph 5.7.
<b>Generic Settlement Statement</b> <b>(Data Transaction)</b>	is a Data Transaction detailed in Appendix F.
<b>Glossary</b>	means this Glossary, including the List of Variables and the List of Subscripts.
<b>Grid Code</b>	means the Ireland Grid Code, Northern Ireland Grid Code or both, as the context requires.
<b>High Materiality</b>	means an amount equal to or over 50,000 Euro (or the sterling equivalent based on the applicable Trading Day Exchange Rate) in respect of a single Participant.

<b>Historical Assessment Period</b>	means a period of days prior to the day of the issue of the latest relevant Settlement Statement over which a statistical analysis of a Participant's incurred liabilities, separately in respect of its Generator Units and Supplier Units, shall be undertaken in order to support the forecasting of undefined liabilities for that Participant. A Historical Assessment Period shall apply for a Year, and for each Year there shall be one Historical Assessment Period applicable to Trading Payments, Trading Charges and Billing Periods, and one Historical Assessment Period applicable to Capacity Payments, Capacity Charges and Capacity Periods.
<b>Hot Cooling Boundary</b>	the period of time, which must be less than that defined by the Warm Cooling Boundary, post Desynchronisation of a Generator Unit after which the Generator Unit's Warmth State transfers from being Hot to being Warm.
<b>Hot Start</b>	means any Synchronisation of a Generator Unit that has previously not been Synchronised for a period of time shorter than its Accepted Hot Cooling Boundary. This data is provided within the submission of Technical Offer Data as described in Appendix C.
<b>Hot Start Up Cost</b>	means Start Up Costs associated with a Hot Start.
<b>Hydro-electric Generator Unit</b>	means a Generator Unit connected to a hydro turbine which is driven either by the controlled flow of water from a reservoir or by the flow of a river.
<b>Imperfections Charge</b>	means a charge applied in respect of each Supplier Unit in each Trading Period based upon the Loss Adjusted Net Demand at that Supplier Unit and the Imperfections Price. The Imperfections Charge is intended to recover the payments in respect of Constraints, Uninstructed Imbalances (less Testing Charges for Generator Units) over each Billing Period and any net differences between Energy Payments and Energy Charges.
<b>Imperfections Price</b>	means the price applied during a Year to the Loss Adjusted Net Demand in respect of each Supplier Unit to determine the Imperfections Charge.
<b>Indemnifying Party</b>	has the meaning set out in paragraph 2.321.
<b>Initial Settlement</b>	means the Settlement processes from which Initial Settlement Statements are derived.
<b>Initial Settlement Statement</b>	means the Settlement Statements that are issued for invoicing.
<b>Instructed Quantity</b>	means MW quantity of a MW/Time Co-ordinate, for the purpose of Appendix P only.
<b>Instruction Code</b>	means a code issued with a Dispatch Instruction indicating the action to be taken by the Generator Unit, for the purpose of Appendix P only.
<b>Instruction Combination Code</b>	means a code issued with a Dispatch Instruction for Pumped Storage Units and Wind Power Units only indicating the mode of operation of the relevant Generator Unit, for the purpose of Appendix P only.
<b>Instruction Effective Time</b>	means the time from which a Dispatch Instruction is effective, for the purpose of Appendix P only,

<b>Instruction Issue Time</b>	means the time of issue of a Dispatch Instruction, for the purpose of Appendix P only.
<b>Instruction Profile</b>	means a piecewise linear curve of expected Generator Unit MW Output vs. time over a Trading Day in response to issued Dispatch Instructions, for the purpose of Appendix P only.
<b>Instruction Profiling</b>	means the process used to convert Dispatch Instructions into Dispatch Quantities as set out in Appendix P.
<b>Insufficient Capacity Event</b>	has the meaning set out in paragraph 4.50A.
<b>Intellectual Property Rights</b>	means all rights to and relating to copyright (including moral rights), patents, inventions (patentable or otherwise), registered or unregistered designs, trade marks and service marks whether registered or unregistered, and all applications for registration of any of the foregoing, topography rights, semi conductor rights, format and presentation rights, trade secrets, know-how, rights of confidence, all rights relating to database protection, and any other intellectual or industrial property rights of whatsoever nature, whether similar to those described above or otherwise and whether existing or prospective throughout the world.
<b>Interconnector</b>	means electric lines and electric plant used solely for conveying electricity from outside both Jurisdictions directly to or from a substation in either Jurisdiction.
<b>Interconnector Administrator</b>	means the Participant identified accordance with paragraph 2.52 and its successors.
<b>Interconnector Administrator Grace Period</b>	means the period specified in paragraph 2.54.
<b>Interconnector Capacity Holdings</b>	means the quantities of capacity on an Interconnector.
<b>Interconnector Error Unit</b>	means, in relation to an Interconnector, a registered Generator Unit to which Uninstructed Imbalances relating to that Interconnector shall be allocated for Settlement purposes.
<b>Interconnector Error Unit Grace Period</b>	means the period specified in paragraph 2.63.
<b>Interconnector Owner</b>	means any person who owns or legally controls under contract or at law an Interconnector and registers it in accordance with paragraph 2.49.
<b>Interconnector Registration Data</b>	means a set of data related to the Registration of an Interconnector, including the identity of the person nominated to register at Interconnector Administrator and the identity of the person nominated to register as Participant in respect of the Interconnector Error Unit, specified in paragraph 2.52 and maintained in accordance with paragraph 2.52A. The associated Data Transaction is detailed in Appendix E.
<b>Interconnector Residual Capacity Unit</b>	means, in relation to an Interconnector, a registered Generator Unit which is used for Settlement or for the utilization of residual or unused capacity in accordance with paragraph 2.57.

<b>Interconnector Technical Data</b>	means, for each Interconnector, the Interconnector technical data which comprises the Aggregate Interconnector Ramp Rate.
<b>Interconnector Unit</b>	means a Unit registered by an Interconnector User associated with the relevant Interconnector.
<b>Interconnector Unit Nomination</b>	means a quantity nominated for import or export for an Interconnector Unit as calculated within the Ex-Ante Indicative Market Schedule.
<b>Interconnector User</b>	in relation to an Interconnector, means a Participant (or Applicant as the case may be) who has entered into arrangements with the relevant Interconnector Owner enabling the Participant (or Applicant) to acquire Interconnector Capacity Holdings from time to time.
<b>Interest</b>	means interest paid on the deposits in the Euro and Pounds sterling in the SEM Clearing Accounts and SEM Collateral Reserve Accounts as appropriate.
<b>Interim Provisions</b>	means the provisions set out in paragraph 7.4, each of which shall apply, in accordance with paragraph 7.4, in place of the relevant Original Provision for the Applicable Interim Period.
<b>Intermediary</b>	means the person appointed by a Unit Owner under a Form of Authority set out in Appendix R, for the purposes of registration of, and participation in the Pool in respect of, any of the Unit Owner's Units in accordance with paragraphs 2.68 to 2.76;
<b>Interval Metering</b>	means a particular metering equipment specification as set out in paragraph 3.77B.
<b>Invoice</b>	means the statement of the payments required to be made to the relevant account in the SEM Bank by a Participant in respect of the trading activities of that Participant in the SEM.
<b>Invoice Due Date</b>	means the date and time before which the payment specified in an Invoice, in accordance with its terms, must be made.
<b>Ireland</b>	means Ireland established by Bunreacht na hÉireann, 1937.
<b>Ireland Grid Code</b>	means the Grid Code as defined in section 2(1) of the Electricity Regulation Act, 1999, as amended that applies to the Transmission System in Ireland.
<b>Isolated Market System</b>	means the IT systems (including without limitation the hardware, software and internal communication network) used for the purpose of a Party's participation in the Pool and which are within the total control of that Party or that Party's Data Processing Entity.
<b>Issue</b>	means a Data Transaction is issued by a Sending Party to a Receiving Party when it leaves the Sending Party's Isolated Market System via a functioning Communication Channel. "Issued" shall be construed accordingly.
<b>Jurisdiction</b>	means Ireland or Northern Ireland or both as appropriate.
<b>Last Status Change Time</b>	means the last time at which the Generator Unit status changed from Synchronised to Desynchronised or Desynchronised to Synchronised, for the purpose of Appendix P only.

<b>Legal Requirement</b>	means any requirement under Applicable Laws, any applicable Licence, any applicable Grid Code or Metering Code or any requirement, direction, determination, decision, instruction or rule of any Competent Authority.
<b>Letter of Credit</b>	means an unconditional and irrevocable standby letter of credit, demand guarantee or charge bond in the form set out in Appendix A.
<b>LIBOR</b>	means the rate published in the London Financial Times as the London Interbank Offered Rate (for the previous banking day) on the banking day immediately following the due date for the payment of a sum due under the Code for overnight deposits in the currency of such sum.
<b>Licence</b>	means an electricity generation licence or an electricity supply licence, transmission system operation licence, distribution system operator licence, transmission system owner licence or market operator licence as the context may require, granted by the Regulatory Authorities pursuant to Section 14 of the ERA or Section 10 of the Electricity (Northern Ireland) Order 1992 and “Licensee” shall be construed accordingly.
<b>Limited Communication Failure</b>	means a period during which one or more Parties or Participants, but not all Parties or Participants and not the Market Operator, a System Operator or Meter Data Provider, fail to comply with the data submission requirements because of a technical, communication or IT systems error outside the Market Operator’s Isolated Market System.
<b>Load Up Break Point Cold</b>	means the break point which defines the shared MW boundary between the two Loading Rates Cold. The first Loading Rate Cold applies from 0 MW to the Load Up Break Point Cold, the second Loading Rate Cold applies from the Load Up Break Point Cold to the End Point of Start Up Period, which should be set equal to Minimum Stable Generation.
<b>Load Up Break Point Hot</b>	means the break point which defines the shared MW boundary between the two Loading Rates Hot. The first Loading Rate Hot applies from 0 MW to the Load Up Break Point Hot, the second Loading Rate Hot applies from the Load Up Break Point Hot to the End Point of Start Up Period, which should be set equal to Minimum Stable Generation.
<b>Load Up Break Point Warm</b>	means the break point which defines the shared MW boundary between the two Loading Rates Warm. The first Loading Rate Warm applies from 0 MW to the Load Up Break Point Warm, the second Loading Rate Warm applies from the Load Up Break Point Warm to the End Point of Start Up Period, which should be set equal to Minimum Stable Generation.
<b>Loading Rate Cold</b>	means the rate at which a Generator Unit increases Output from zero to Minimum Stable Generation when it is instructed to Cold Start.
<b>Loading Rate Hot</b>	means the rate at which a Generator Unit increases Output from zero to the Minimum Stable Generation when it is instructed to Hot Start.

<b>Loading Rate Warm</b>	means the rate at which a Generator Unit increases Output from zero to Minimum Stable Generation when it is instructed to Warm Start.
<b>Loss of Load Probability or LOLP</b>	means the probability that there will be insufficient Generation to meet the Demand in the Pool. Two varieties of Loss of Load Probability are determined as part of the Capacity Payments calculation: $\lambda$ determined ex-ante and $\phi$ determined ex-post, both calculated as set out in Appendix M.
<b>Loss Adjusted</b>	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 the application of the relevant Transmission Loss Adjustment Factors in accordance with this Code.
<b>Low Materiality</b>	means an amount below 50,000 Euro (or sterling equivalent based on the relevant Trading Day Exchange Rate) in respect of a single Participant.
<b>Maintenance Schedule (Data Transaction)</b>	is a Data Transaction detailed in Appendix J.
<b>Make Whole Payment</b>	means a payment in respect of each Generator Unit, designed to make up any difference between the total Energy Payments to the Generator Unit in a Billing Period and the Schedule Production Cost for that Generator Unit for each Trading Period within the Billing Period (where the difference is arithmetically positive calculated over the Billing Period) as set out in paragraph 4.109.
<b>Market Auditor</b>	means the person at any time appointed to performing the audit of the market in accordance with paragraph 2.89.
<b>Market Operator</b>	means EirGrid plc and SONI Limited solely in their role as the undertakings authorised by the Regulatory Authorities to perform the Market Operator function pursuant to the Market Operator Licences and any relevant exemption with their rights, powers, functions, obligations and liabilities under this Code in that role alone being joint and several.
<b>Market Operator Charge</b>	means a charge levied on Participants intended to recover costs and expenses of the Market Operator which shall be calculated pursuant to paragraphs 6.100 to 6.105.
<b>Market Operator Charge Account</b>	means the either or both, as the context may require, of the accounts set up in the SEM Bank to receive payments by Participants in response to Invoices issued for the Market Operator Charge.
<b>Market Operator Licence</b>	means the licence(s) issued to the person or persons acting as Market Operator from time to time.
<b>Market Price Cap</b>	means the maximum permitted value for the System Marginal Price (SMP) determined by the MSP Software for any Trading Period, determined in accordance with paragraph 4.8A.
<b>Market Price Floor</b>	means the minimum permitted value for the System Marginal Price (SMP) determined by the MSP Software for any Trading Period, determined in accordance with paragraph 4.8A.

<b>Market Schedule Quantity</b>	means the Output for a Generator Unit as determined by the MSP Software in the Ex-Ante Indicative Market Schedule initially and in the Ex-Post Initial Market Schedules subsequently. Market Schedule Quantities are net of Unit Load and are prior to adjustment for Transmission Losses. Market Schedule Quantities for Distribution Connected Generator Units are after adjustment for Distribution Losses in accordance with paragraph 4.28.
<b>Market Schedule Start</b>	means that for any Trading Period h in which a Generator Unit has a Market Schedule Quantity greater than zero MW and in the preceding Trading Period (h-1) that Unit has a Market Schedule Quantity equal to zero MW, the Generator Unit has a Market Schedule Start in Trading Period h. Otherwise the Generator Unit has no Market Schedule Start in the Trading Period.
<b>Market Schedule Warmth State</b>	means the calculated Warmth State (being Cold, Warm or Hot) of a Generator Unit at the start of a Trading Period consistent with the Market Schedule Quantities for that Generator Unit in preceding Trading Periods and the definitions of Cold Start, Warm Start and Hot Start.
<b>Market Start Date</b>	means the date of SEM go-live, as determined by the Regulatory Authorities
<b>Maximisation</b>	a Generator Unit is treated as being subject to Maximisation in a Trading Period as set out in Appendix P.
<b>Maximisation Instruction</b>	means an instruction of that name issued by a System Operator in accordance with the applicable Grid Code.
<b>Maximum Down Time</b>	means the maximum period of time during which Demand Reduction at a Demand Side Unit can be Dispatched.
<b>Maximum Export Available Transfer Capacity</b>	means the maximum Available Transfer Capacity for Export out of the Pool for the relevant Interconnector. As set out in paragraph 5.37D.
<b>Maximum Export Capacity</b>	means the maximum export capacity of a site as defined under the site's Connection Agreement or equivalent.
<b>Maximum Generation</b>	means the maximum Output for a Generator Unit.
<b>Maximum Import Available Transfer Capacity</b>	means the maximum Available Transfer Capacity for Import into the Pool for the relevant Interconnector. R as set out in paragraph 5.37C.
<b>Maximum Import Capacity</b>	means the maximum import capacity of a site as defined under the sites Connection Agreement or equivalent.
<b>Maximum Interconnector Unit Export Capacity</b>	means the upper limit of export an Interconnector Unit is declaring as part of its Commercial Offer Data.
<b>Maximum Interconnector Unit Import Capacity</b>	means the upper limit of import an Interconnector Unit is declaring as part of its Commercial Offer Data.
<b>Maximum On Time</b>	means the maximum time that must elapse from the time a Generator Unit is instructed to Start Up before it can be instructed to shut down.
<b>Maximum Ramp Down Rate</b>	means the maximum Ramp Down Rate of a Demand Side Unit.
<b>Maximum Ramp Up Rate</b>	means the maximum Ramp Up Rate of a Demand Side Unit.



<b>Meeting</b>	means a meeting of the Modifications Committee and shall include, where the context so permits or requires and Emergency Meeting.
<b>Member</b>	means a member of any Dispute Resolution Board.
<b>Meter Data</b>	means data obtained from a metering system, including the processed data or substituted data that is used for settlement and for network purposes
<b>Meter Data Provider</b>	means the person with responsibility as set out under Appendix G for submitting Meter Data to the Market Operator in the form and under the timelines specified in the Code, to the standards indicated in the Metering Code or Grid Code as appropriate, and facilitating the resolution of Data Queries, Settlement Queries and Disputes.
<b>Metered Generation</b>	means the Active Power produced by a Generator Unit at the Export Point.
<b>Metering Code</b>	<p>means, for Ireland, the code of that name prepared by the Distribution System Operator(s) and approved by the Commission, as from time to time revised, amended, supplemented or replaced with the approval of or at the instance of the Regulatory Authorities; and</p> <p>means, for Northern Ireland, the subset of the Northern Ireland Grid Code pertaining to meter reading, Meter Data processing and Meter Data communications or for Ireland the “Retail Market Design” and for Northern Ireland the “Market Registration Code” as appropriate.</p>
<b>Metering Point Registration Number or MPRN</b>	means the Meter Point Registration Number as defined in the applicable Metering Code.
<b>Minimum Down Time</b>	means the minimum period of time during which Demand Reduction at a Demand Side Unit can be Dispatched.
<b>Minimum Generation</b>	means the minimum level of Generation for a Generator Unit, which will be set equal to Minimum Stable Generation for that Generator Unit.
<b>Minimum Interconnector Import Level</b>	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.
<b>Minimum Interconnector Export Level</b>	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.
<b>Minimum Off Time</b>	means the minimum time that a Generator Unit must remain producing no Active Power commencing at the time when it first stops producing Active Power.

<b>Minimum On Time</b>	means the minimum time that must elapse from the time a Generator Unit is instructed to Start Up before it can be instructed to shut down.
<b>Minimum Output</b>	means the minimum level of Output at which a Generator Unit may operate, which is zero except as otherwise specified in the Code.
<b>Minimum Stable Generation</b>	means the level of minimum sustainable Output in accordance with the Grid Code which a Generator Unit is capable of producing.
<b>Modification</b>	means a modification, revision, amendment, supplementation, extension, consolidation or replacement to the provisions of the Code which is accepted and implemented in accordance with paragraphs 2.155 to 2.206 and which shall, for the avoidance of doubt, include a modification of or addition to the Agreed Procedures.
<b>Modification Proposal</b>	means any proposal to modify the Code which is submitted to the Modifications Committee in accordance with the Modifications Process.
<b>Modification Proposal Notice (Data Transaction)</b>	is a Data Transaction detailed in Appendix J.
<b>Modification Recommendation Report</b>	means a report created by the Modifications Committee and sent to the Regulatory Authorities containing the Final Modification Recommendation on a Modification Proposal and all supporting detail to aid the Regulatory Authorities' decision on the Modification Proposal developed by the Modifications Committee.
<b>Modifications Committee</b>	means the committee established from time to time for the purpose of processing Modification Proposals in accordance with paragraphs 2.114 to 2.148.
<b>Modifications Process</b>	means the process of submitting, assessing and accepting or rejecting Modification Proposals in accordance with paragraphs 2.155 to 2.206.
<b>Modifications Website</b>	means the website referred to in paragraph 2.198.
<b>Modified Interconnector Unit Nomination</b>	means for each Interconnector Unit in each Trading Period, a value expressed in MW which is calculated in accordance with paragraph 5.57
<b>Monitoring</b>	means the monitoring of Posted Credit Cover by the Market Operator, through the daily calculation of the Required Credit Cover that will be based on the best available data for the Settlement Risk Period up to and including the Settlement Day in which the calculations are made.
<b>Month</b>	one calendar month, starting at midnight on the first calendar day of such month.
<b>Monthly Load Forecast</b>	means the forecast of Demand (as measured at the Trading Boundary) for each Trading Period in the next Month and the following twelve Months as forecast by the System Operators. The associated Data Transaction is detailed in Appendix E.

<b>Moody's Investor Services Inc.</b>	means the credit rating agency of that name.
<b>MSP Failure</b>	means the failure of the MSP Software to produce a Valid MSP Solution.
<b>MSP Software</b>	means the software used to determine Market Schedule Quantities for each Price Maker Generator Unit and to determine the System Marginal Price for each Trading Day.
<b>MSP Software Run Type</b>	means one of the following types of run of the MSP Software: Ex-Ante Indicative MSP Software Run, Ex-Post Indicative MSP Software Run or Ex-Post MSP Software Run which are defined within Appendix N.
<b>MW Tolerance</b>	means the tolerance value in MW within which a Generator Unit is deemed to be complying with its Dispatch Instruction, before consideration of frequency response, which is used in the calculation of Uninstructed Imbalances.
<b>MW/Time Co-ordinate</b>	means a co-ordinate representing a combination of MW Instructed Quantity and time on the Instruction Profile, for the purpose of Appendix P only.
<b>Net Output Function</b>	has the meaning set out in paragraph 4.22.
<b>Netting Generator Unit</b>	is a notional Generator Unit registered by a Participant under the Code to facilitate Settlement of a Trading Site. This does not physically exist and has no meter associated with it and shall be treated under the Code as an Autonomous Generator Unit save as otherwise stated.
<b>New Participant</b>	means in relation to the calculation of Required Credit Cover, a Participant for which the available historic data covers a period shorter than the Historic Assessment Period.
<b>No Load Cost</b>	means the element of operating cost for a Generator Unit submitted as part of Commercial Offer Data, that is invariant with the level of Output and is incurred at all times when the level of Output is greater than zero.
<b>Nominal System Frequency</b>	means the nominal average system frequency for each Trading Period which is submitted in accordance with paragraph 4.112A and used in the calculation of Uninstructed Imbalances. Nominal System Frequency will normally have a value of 50.00Hz plus or minus 0.05Hz.
<b>Nominated Quantity</b>	means the Output intended for a Generator Unit in accordance with paragraph 5.12.
<b>Nominating Participant</b>	means, for the purposes of paragraphs 2.114 to 2.148 in relation to the Modifications Committee, a Party which is a Participant excluding the System Operators and is allowed to nominate Participant nominees to the Modifications Committee.
<b>Nominating Participant Election</b>	means the election process for the appointment of Nominating Participant members to the Modifications Committee, as outlined in paragraph 2.131.
<b>Nomination Profiles</b>	has the meaning set out in paragraph 5.11.
<b>Non-Firm Access</b>	has the meaning set out in paragraph 2.48D.

<b>Non-Wind Power Unit</b>	means a Predictable, Variable or Autonomous Generator Unit that is not a Wind Power Unit.
<b>Northern Ireland</b>	means Northern Ireland established by the Government of Ireland Act, 1920.
<b>Northern Ireland Authority for Energy Regulation or NIAER</b>	means the Northern Ireland Authority for Energy Regulation or more commonly known as the Office for the Regulation of Electricity and Gas of Northern Ireland established under Article 3 Part II of the Energy (Northern Ireland) Order 2003 or any successor body.
<b>Northern Ireland Grid Code</b>	means the Grid Code at any time existing as required to be prepared by the entity licensed to operate the Northern Ireland Transmission System under its Licence as may be amended from time to time.
<b>Notice</b>	means any communication required to be given by a Party or to the Regulatory Authorities under the Code or the Framework Agreement but shall not include Data Transactions to the extent that specific rules for communication of Data Transactions are set out in Section 3 and Appendices B-J. Any reference to a “notification” to be given under the Code shall be deemed to be a “Notice”.
<b>Notice of Dispute</b>	means a Notice specifying what is disputed, when the Dispute commences, and the Parties of the Dispute.
<b>Notice of Dissatisfaction</b>	means a Notice issued in accordance with paragraphs 2.276 and 2.277.
<b>Offer Data</b>	means Commercial Offer Data and/or Technical Offer Data as appropriate.
<b>Operating Characteristics</b>	means the technical characteristics of a Generator Unit, for the purpose of Appendix P only.
<b>Operating Trajectory</b>	means the theoretical Output of the Generator Unit over time, for the purpose of Appendix P only.
<b>Optimisation Time Horizon</b>	means the time period from and including 06:00 on the relevant Trading Day up to but not including 12:00 on the subsequent Trading Day over which each run of the MSP Software applies.
<b>Output</b>	means Active Power produced by a Generator Unit.
<b>Outturn Annual Peak Demand</b>	as defined in Appendix M.
<b>Outturn Availability</b>	means the set of Availability data for a Generator Unit provided for a previous Trading Day in accordance with paragraph 4.33.
<b>Outturn Data</b>	means actual data relating to the operation of a Generator Unit on a previous Trading Day.
<b>Outturn Minimum Output</b>	means the set of Minimum Output data for a Generator Unit provided for a previous Trading Day in accordance with paragraph 4.33.
<b>Outturn Minimum Stable Generation</b>	means the set of Minimum Stable Generation data for a Generator Unit provided for a previous Trading Day in accordance with paragraph 4.33.
<b>Outturn Weekly Peak Demand</b>	as defined in Appendix M.

<b>Panel</b>	means the panel for dispute resolution selected in accordance with paragraphs 2.257 to 2.265.
<b>Participant</b>	means a Party or business division of a Party which at the relevant time has been designated as, or deemed to be, the "Participant" in relation to any Units which have been registered in accordance with the Code.
<b>Participant and/or Unit Deregistration</b> <b>(Data Transaction)</b>	is a Data Transaction detailed in Appendix B.
<b>Participant and/or Unit Detailed Information Registration</b> <b>(Data Transaction)</b>	is a Data Transaction detailed in Appendix B.
<b>Participant and/or Unit Detailed Information Request</b> <b>(Data Transaction)</b>	is a Data Transaction detailed in Appendix B.
<b>Participant and/or Unit Finalisation Registration</b> <b>(Data Transaction)</b>	is a Data Transaction detailed in Appendix B.
<b>Participant and/or Unit Registration</b> <b>(Data Transaction)</b>	is a Data Transaction detailed in Appendix B.
<b>Participation Fee</b>	means a fee to be paid to the Market Operator in respect of any application in a Participation Notice during a Year to register a Unit.
<b>Participation Notice</b>	means the notice referred to in paragraph 2.22 which a Party must issue to apply to register a Unit in the name of a Participant.
<b>Party</b>	means any person who is a party to the Framework Agreement and is thereby bound by the Code, and shall include its successors and permitted assigns.
<b>Payment Due Date</b>	means the date and time before which any sum due for payment under the Code must, pursuant to its terms or the direction of any Competent Authority, be paid.
<b>Personal Data</b>	has the meaning set out in the Data Protection Legislation.
<b>Physically Feasible</b>	means levels of Output which are physically feasible for a Generator Unit based on its Technical Capabilities, including intertemporal constraints.
<b>Pool</b>	means the gross pool for trading between Participants in the SEM.
<b>Posted Credit Cover</b>	means at any time the total amount of Credit Cover lodged with the Market Operator by a Participant whether posted in Euro or in Pounds sterling or both and whether in the form of Letters of Credit or of a deposit in a SEM Collateral Reserve Account.
<b>Pounds sterling</b>	means the Currency of Northern Ireland.

<b>Preceding MSP Run</b>	means, for any given Optimisation Time Horizon and the associated run of the MSP Software, the most recent Valid MSP Solution which relates to the Optimisation Time Horizon starting one Trading Day earlier and which is of the same MSP Software Run Type.
<b>Predictable Generator Unit</b>	means a Generator Unit with predictable Availability which is Dispatchable, and can include all types of Generator Unit, except Wind Power Units and Run-of River Hydro Units that are considered as being Variable Generator Units.
<b>Predictable Price Maker Generator Unit</b>	means a Predictable Generator Unit which is a Price Maker Generator Unit.
<b>Predictable Price Taker Generator Unit</b>	means a Predictable Generator Unit which is a Price Taker Generator Unit.
<b>Premium for Under Generation</b>	means a factor by which prices applied in respect of a Generator Unit which under generates by more than the Tolerance Band shall be reduced.
<b>Price</b>	means the price associated with a specified Quantity within a Price Quantity Pair.
<b>Price Maker Generator Unit</b>	means a Generator Unit that is Dispatchable and may be a Variable Price Maker Generator Unit or a Predictable Price Maker Generator Unit as set out in paragraphs 2.37 to 2.40.
<b>Price Quantity Pair(s)</b>	means Prices and Quantities for Generator Units as part of Commercial Offer Data.
<b>Price Taker Generator Unit</b>	means a Generator Unit that may be a Variable Price Taker or a Predictable Price Taker Generator Unit as set out in paragraphs 2.37 to 2.40.
<b>Priority Dispatch</b>	means priority dispatch as afforded under governing legislation in either Jurisdiction.
<b>Processing</b>	as defined in applicable Data Protection Legislation and the term "Processes" shall be construed accordingly.
<b>Profiled Dispatch and Interconnector Residual Capacity (Data Transaction)</b>	means set of data describing the Dispatch Instructions and System Operator trades on an Interconnector. The associated Data Transaction is detailed in Appendix E.
<b>Proposal Notice</b>	means the notice of a Modification Proposal to be published in accordance with paragraph 2.160.
<b>Proposed Effective Date</b>	means the Trading Day from which the Party (or the Applicant as applicable) proposes that registration of a Unit or Units to a Participant shall be effective, as specified in a Participation Notice. Proposed Effective Dates are aligned to Trading Day timescales and all references to Proposed Effective Date shall apply from the start of the relevant Trading Day at 06:00.

<b>Prudent Electric Utility Practice</b>	means those standards, practices, methods and procedures conforming to safety standards and Legal Requirements which are attained by exercising that degree of skill, care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator in Europe engaged in the same type of undertaking under the same or similar circumstances.
<b>Prudent Industry Operator</b>	means an operator engaged in the electric utility industry which performs in accordance with Prudent Electric Utility Practice.
<b>Pumped Storage Cycle Efficiency</b>	means the ratio of Demand relative to Generation for a Pumped Storage Unit.
<b>Pumped Storage Unit</b>	means a Generator Unit within a pumped storage plant where a fluid is pumped to a storage container when in pumping mode and the fluid's flow back is used to drive a turbine which powers a generator when in generating mode.
<b>Pumping Capacity</b>	means the maximum ability of a Pumped Storage Unit to pump water to the storage container when in pumping mode.
<b>Quantity</b>	means the quantity of Output specified within a Price Quantity Pair.
<b>Queried Data</b>	has the meaning set out in paragraph 3.53A.
<b>Quorum</b>	means a quorum of the Modifications Committee, as set out in paragraph 2.118A.
<b>Ramp Down Break Point</b>	means the break point which defines the shared MW boundary between the two Ramp Down Rates.
<b>Ramp Down Rate</b>	means the Ramp Rate associated with a decrease in Active Power production by a Generator Unit.
<b>Ramp Rate</b>	means the rate of increase or the rate of decrease in Active Power produced by a Generator Unit (excluding Interconnector Units (for which an assumed Ramp Rate applies in accordance with paragraph 5.56), Interconnector Error Units and Interconnector Residual Capacity Units).
<b>Ramp Up Break Point</b>	means the break point which defines the shared MW boundary between the two Ramp Up Rates.
<b>Ramp Up Rate</b>	means the Ramp Rate associated with an increase in Active Power production by a Generator Unit.
<b>Re-adjusted Self Billing Invoice</b>	means a Self Billing Invoice issued to a Participant, which has received a Debit Note, following the recovery of all or part of an Unsecured Bad Debt.
<b>Receiving Party</b>	means the initial intended recipient of a Data Transaction from another Party.
<b>Recipient Party</b>	has the meaning set out in paragraph 2.313.
<b>Reduced Participant</b>	means a Participant, other than a member of a Defaulting Participant Group, which has received a Debit Note in respect of the allocation of Unsecured Bad Debt as described in paragraph 6.33F 2.

<b>Referral Notice</b>	means a Notice from a Party to the Dispute Resolution Board as set out in paragraph 2.254.
<b>Registered Capacity</b>	means the maximum Active Power in MW that a Generator Unit can deliver on a sustained basis at the Export Point.
<b>Registration Data</b>	means registration data as set out in Appendix B except where otherwise specified in the Code.
<b>Regulatory Authorities</b>	means the NIAER and the Commission and the term “Regulatory Authority” shall be construed accordingly to mean any one of them as the context admits or requires.
<b>Rejected</b>	means, in relation to a CMS Data Transaction, that the Data Transaction has been rejected by the Market Operator in accordance with the Code following the Validation process and the terms “Reject” and “Rejection” shall be construed accordingly.
<b>Rejection Notice</b>	means a Notice sent by the Market Operator to the Sending Party specifying that the Data Transaction concerned is invalid and has been rejected by the Market Operator.
<b>Relevant Date</b>	has the meaning set out in paragraph 2.235.
<b>Renewable Generator Unit</b>	means a Generator Unit that produces electricity from a renewable fuel where such fuel categories are stipulated under legislation.
<b>Required Credit Cover</b>	means the required Credit Cover for each Participant which is intended to cover the expected potential unpaid payment commitments to the Pool over the Settlement Risk Period.
<b>Resettlement</b>	means the same as Settlement Rerun. As an adjective it refers to any financial quantity or data input required for Resettlement.
<b>Revenue Authorities</b>	means H. M. Revenue and Customs and the Office of Revenue Commissioners and the term “Revenue Authority” shall mean either one of them.
<b>Run-of-River Hydro Unit</b>	means a Generator Unit that uses the flow of the river to drive its hydro turbine and produce electricity.
<b>Same Day Value</b>	as defined in Appendix A.
<b>Schedule Demand</b>	means the level of Demand to be met by Price Maker Generator Units, as set out in Appendix N, for the purpose of each run of the MSP Software.
<b>Schedule Production Cost</b>	means the implied cost incurred by a Generator Unit, as determined from the Accepted Price Quantity Pairs, No Load Costs and Start Up Costs and other relevant Commercial Offer Data and Technical Offer Data, of Output in accordance with the Market Schedule Quantity.
<b>Secretariat</b>	means the full time secretariat provided to support the Modifications Committee, in accordance with paragraph 2.117.
<b>Section</b>	means a Section of the Code.



<b>Self Billing Invoice</b>	means an invoice prepared by the Market Operator on behalf of a Participant in respect of amounts payable to that Participant for Trading Payments or Capacity Payments due to that Participant.
<b>Self Billing Invoice Due Date</b>	means the date and time before which the payment specified in a Self Billing Invoice must be paid.
<b>SEM Bank</b>	means the Bank with which the Market Operator has contracted for the provision of banking services required pursuant to the Code.
<b>SEM Capacity Clearing Account</b>	means the account or accounts in the name of the Market Operator (holding as trustee on the trusts set out in Section 6) with the SEM Bank to and from which all Capacity Payments and Charges are made.
<b>SEM Collateral Reserve Account</b>	means an account established by a Participant in the name of the Market Operator pursuant to Section 6 for the purpose of comprising part or all of the Participant's Posted Credit Cover.
<b>SEM Collateral Reserve Assets</b>	means the aggregate of: (1) amounts from time to time credited to the SEM Collateral Reserve Account(s); (2) amounts which any Participant, where applicable, is from time to time obliged to pay to the credit of their respective Collateral Reserve Accounts; and (3) interest receivable on the SEM Collateral Reserve Account(s).
<b>SEM Creditor</b>	means a Participant to which payments are due under the Code.
<b>SEM Trading Clearing Account</b>	means the account or accounts in the name of the Market Operator (holding as trustee on the trusts set out in Section 6) with the SEM Bank to and from which all Trading Payments and Trading Charges are made.
<b>Sending Party</b>	means the Party that initially sends a Data Transaction.
<b>Settlement</b>	means financial settlement of the Pool, through determination of trading-related payments, charges, fees and costs, detailed in Self Billing Invoices and Invoices Issued by the Market Operator to Participants.
<b>Settlement Calendar</b>	means a calendar for Settlement published as set out in paragraph 6.29A.
<b>Settlement Day</b>	means a period starting from 00:00 and ending at 24:00 each day.
<b>Settlement Dispute</b>	means any Dispute which arises out of a failure to resolve a Settlement Query in accordance with paragraphs 6.55 to 6.62 or a Data Query in accordance with paragraphs 6.44 to 6.54.
<b>Settlement Item</b>	means any payment, charge, cost or fee listed in a Settlement Statement.
<b>Settlement Period</b>	means Billing Period or Capacity Period or both of them as the context may require.
<b>Settlement Query</b>	means a query raised by a Party in accordance with paragraph 6.55.

<b>Settlement Reallocation</b>	means an instrument that can be used by Participants (which may be the same Party) to reduce the amount of Required Credit Cover by entering a Settlement Reallocation Agreement.
<b>Settlement Reallocation Agreement</b>	means an agreement undertaken with the consent of two Participants (which may be the same Participant) and the Market Operator, under which the Market Operator credits one Participant, hereafter named Debited Participant, with a positive amount in respect of an agreed Trading Period, in consideration of a matching negative trading amount debited to the other Participant, hereafter named Credited Participant, in respect of the same Trading Period.
<b>Settlement Reallocation Data Transaction</b>	is a Data Transaction detailed in Appendix I.
<b>Settlement Reallocation Notice</b>	means all information required from a Market Participant to facilitate Settlement Reallocation.
<b>Settlement Reallocation Request</b>	means a request by the Debited Participant to the Market Operator to put in place a Settlement Reallocation Agreement between itself and the Credited Participant.
<b>Settlement Recalculation Threshold</b>	means a percentage of change in Metered Generation or Market Schedule Quantity or $\lambda$ or $\varphi$ in a Trading Day that results from an Upheld Dispute or the settlement of a Data Query or a Settlement Query which will result in the Market Operator re-running the MSP Software or recalculating the Ex-Post Loss of Load Probability, as appropriate. The Settlement Recalculation Threshold shall be proposed by the Market Operator from time to time and approved by the Regulatory Authorities.
<b>Settlement Rerun</b>	means a rerun of Settlement for a given Settlement Period when new data are available.
<b>Settlement Rerun Statement</b>	means a Settlement Statement in respect of a Settlement Rerun.
<b>Settlement Risk Period</b>	means the total period covered by the Actual Exposure Period and the Undefined Potential Exposure.
<b>Settlement Statement</b>	means a report based on a defined data set that incorporates a set of variables used to calculate all payments and charges to a Participant in respect of its Supplier and Generator Units for a given Billing Period or Capacity Period, as further described in Appendix F.
<b>Shadow Price</b>	means a component of the System Marginal Price for each Trading Period, calculated by the MSP Software as the marginal cost (excluding Start Up Costs and No Load Costs) of meeting Schedule Demand taking account of all constraints and limitations used within that run of the MSP Software except those constraints used solely in the calculation of Uplift.
<b>Shortfall</b>	means, where any Participant fails to make any payment due under the Code (including, for the avoidance of doubt, any payment required to be made as a result of a decision of the DRB) by the Payment Due Date, the amount outstanding together with any applicable interest.

<b>Short-Term Maximisation Capability</b>	means a part of Technical Offer Data for certain Generator Units which relates to an expectation of the level of Output that could be achieved, on a reasonable endeavours basis, under a Maximisation Instruction (and which may exceed the Availability declared under the relevant Grid Code).
<b>Shut Down Cost</b>	means the element of operating cost for a Demand Side Unit submitted as part of Commercial Offer Data.
<b>Single Electricity Market or SEM</b>	means the wholesale all-island single electricity market established and governed pursuant to Section 23 of the Northern Ireland (Miscellaneous Provisions) Act 2006 and section (9BA(1) of the Electricity Regulation Act 1999 and the Code.
<b>SO Interconnector Trade</b>	means a trade conducted across an Interconnector by the relevant System Operator, after the calculation of Modified Interconnector Unit Nominations, using the Interconnector Residual Capacity Unit for that Interconnector.
<b>Soak Time Cold</b>	means, for each Soak Time Trigger Point Cold, the duration at which the Generator Unit must remain at that Soak Time Trigger Point Cold during a Cold Start.
<b>Soak Time Hot</b>	means, for each Soak Time Trigger Point Hot, Soak Time Hot is the duration at which the Generator Unit must remain at that Soak Time Trigger Point Hot during a Hot Start.
<b>Soak Time Trigger Point Cold</b>	means a constant MW level at which a Generator Unit must remain while loading up between zero MW and Minimum Stable Generation after a Cold Start.
<b>Soak Time Trigger Point Hot</b>	means a constant MW level at which a Generator Unit must remain while loading up between zero MW and Minimum Stable Generation after a Hot Start.
<b>Soak Time Trigger Point Warm</b>	means constant MW level at which a Generator Unit must remain while loading up between zero MW and Minimum Stable Generation after a Warm Start
<b>Soak Time Warm</b>	means, for each Soak Time Trigger Point Warm, the duration at which the Generator Unit must remain at that Soak Time Trigger Point Warm during a Warm Start.
<b>Special Unit</b>	means a Generator Unit or Supplier Unit that is subject to special treatment in accordance with the rules for Special Units set out in Section 5. The Units concerned are Interconnector Units, Energy Limited Generator Units, Pumped Storage Units, Autoproducer Units, Generator Units Under Test and Demand Side Units.
<b>Standard &amp; Poors</b>	means the credit rating agency known by that name, a division of McGraw-Hill Companies Inc.
<b>Standard Participant</b>	means in relation to the calculation of Required Credit Cover, a Participant that is neither a New Participant nor an Adjusted Participant.
<b>Start Up</b>	means the process of bringing a Generator Unit to a Synchronised state, from a Cold, Warm or Hot (Desynchronised) state.
<b>Start Up Costs</b>	means the costs associated with Start Up.

<b>Starting Optimisation Overlap Period</b>	means, for any given Optimisation Time Horizon and the associated run of the MSP Software, that part of the Optimisation Time Horizon that was included in the Optimisation Time Horizon of the Preceding MSP Run.
<b>Supplier</b>	means a Participant licensed to supply electricity under Section 14(1)(b), (c) or (d) or Section 14(2) of the ERA or section 10 of the Electricity (Northern Ireland) Order 1992.
<b>Supplier of Last Resort</b>	means, in relation to Ireland, the person designated as supplier of last resort under the European Communities (Internal Market In Electricity) Regulations, 2005 (S.I. 60/2005); and  means, in relation to Northern Ireland, [to be defined].
<b>Supplier Suspension Delay Period</b>	means a period commencing at the time of issue of any Suspension Order in respect of a Supplier Unit the minimum period before such an Order shall take effect. The duration of the Supplier Suspension Delay Period shall be determined by the Regulatory Authorities from time to time.
<b>Supplier Unit</b>	means the Unit comprising the aggregated metered consumption, which for the avoidance of doubt that consumption may be positive or negative, of one or more Generators or Demand Sites which are not Generator Units, or, for the purposes of the Code any of the following: Associated Supplier Unit, Trading Site Supplier Unit and Error Supplier Unit.
<b>Supplier Unit Capacity Settlement Statement Data Transaction</b>	is a Data Transaction detailed in Appendix F.
<b>Supplier Unit Energy Settlement Statement Data Transaction</b>	is a Data Transaction detailed in Appendix F.
<b>Supplier Unit Invoices Data Transaction</b>	is a Data Transaction detailed in Appendix F.
<b>Supply Participant</b>	means, in Section 2, a Participant who has registered Supplier Units except Error Supplier Units.
<b>Suspension</b>	means the process whereby the Market Operator suspends a Party from trading in the Pool in respect of some or all of its registered Units in accordance with a Suspension Order issued under paragraphs 2.215 to 2.217. "Suspend" and "Suspended" shall be construed accordingly.
<b>Suspension Order</b>	means an order from the Market Operator to a Party in accordance with paragraphs 2.215 or 2.217 stating that its participation in respect of any or all of its Units will be suspended in accordance with the terms of the Suspension Order.

<b>Synchronisation</b>	means the process where a Generator Unit or Interconnector is preparing to connect and produce energy on the system to which it is connected in accordance with a Dispatch Instruction or its Market Schedule Quantity as appropriate, so that the frequencies and phase relationships of that Generator Unit or Interconnector, as the case may be and the system to which it is connected are identical. "Desynchronisation", "Synchronised" and "Desynchronised" will be interpreted accordingly.
<b>Synchronous Start Up Time Cold</b>	means the time taken to bring a Generator Unit to a Synchronised state from a Cold (Desynchronised) state.
<b>Synchronous Start Up Time Hot</b>	means the time taken to bring a Generator Unit to a Synchronised state from a Hot (Desynchronised) state.
<b>Synchronous Start Up Time Warm</b>	means the time taken to bring a Generator Unit to a Synchronised state from a Warm (Desynchronised) state.
<b>System Characteristics Data</b>	means data submitted after the Trading Day by the System Operators in accordance with Appendix E identifying the Average System Frequency and the Nominal System Frequency.
<b>System Marginal Price or SMP</b>	means the price at which one MWh of electricity is sold under the Code in any given Trading Period, as calculated in accordance with Sections 4, 5 and 6.
<b>System Operator Market Data Transactions</b>	are Data Transactions detailed in Appendix E.
<b>System Operator</b>	means, in respect of Northern Ireland, the holder, for the time being, of a transmission licence granted under Article 10(1)(b) of the Electricity (Northern Ireland) Order 1992 as may be amended or replaced from time to time, in its capacity as the holder of that licence; and in respect of Ireland, the holder, for the time being, of a licence granted under Section 14(1)(e) of the Republic of Ireland Electricity Act as may be amended or replaced from time to time, in its capacity as the holder of that licence. References to the "System Operators" shall be construed accordingly.
<b>System Operators' Settlement Statement (Data Transaction)</b>	is a Data Transaction detailed in Appendix F.
<b>System Parameters (Data Transaction)</b>	is a Data Transaction detailed in Appendix E.
<b>System per Unit Regulation</b>	means a parameter, proposed annually by the System Operator and approved by the Regulatory Authorities, which is used in the calculation of the Tolerance for Over Generation and the Tolerance for Under Generation used in the determination of Uninstructed Imbalance Payments.
<b>Target Instruction Level</b>	means the intended MW Output level for the Generator Unit to achieve which accompanies a Dispatch Instruction, for the purpose of Appendix P only.

<b>Target Reservoir Level</b>	is part of the Commercial Offer Data for a Pumped Storage Unit and means the target level of the reservoir for the beginning of the Trading Day as described in paragraph 5.97C.
<b>Target Reservoir Level Percentage</b>	is part of the Commercial Offer Data for a Pumped Storage Unit and means a percentage between 0% and 200%, which is multiplied by the Target Reservoir Level to a value of that target for the end of the Optimisation Time Horizon for use in the MSP Software.
<b>Technical Capability</b>	means the technical capabilities of a Generator Unit based on, as appropriate, either (1) Technical Offer Data submitted in accordance with Appendix C or (2) Generator Unit Technical Characteristics Data (and, where appropriate, Energy Limited Generator Unit Technical Characteristics Data) submitted in accordance with Appendix E.
<b>Technical Offer Data</b>	means data submitted in respect of a Generator Unit as set out in Appendix C and in accordance with paragraph 4.17.
<b>Termination</b>	means the termination of a person's status as a Party in accordance with paragraphs 2.226 or 2.232A, and "Terminate" and "Terminated Party" shall be construed accordingly.
<b>Termination Date</b>	means the date upon which a Termination takes effect in accordance with paragraph 2.227.
<b>Termination Order</b>	means an order from the Market Operator to a Party pursuant to paragraph 2.227 stating that the Party will be Terminated, or that any or all of its Units will be Deregistered.
<b>Testing Charge</b>	means a charge in respect of a Generator Unit Under Test in accordance with the Testing Tariff.
<b>Testing Tariff</b>	is a Data Transaction detailed in Appendix E.
<b>Tie-Break</b>	means the situation which arises when the MSP Software cannot differentiate between one or more Generator Units on the grounds of Schedule Production Cost. The MSP Software will resolve the order in which Generator Units are scheduled in accordance with paragraph 4.51.
<b>Timetabled Settlement Rerun</b>	means a Settlement Rerun carried out in accordance with the timeline specified in Section 6.
<b>Tolerance Band</b>	means an interval in MW around the Dispatch Quantity for that Generator Unit in that Trading Period within which a Generator Unit is charged for (or paid for, as appropriate) Uninstructed Imbalances at SMP when Metered Generation is within that Tolerance Band.
<b>Total Balance Sheet Assets</b>	means the sum of current and long-term assets set out in the published accounts of the company.

<b>Trading Boundary</b>	means a notional boundary between all points on the Transmission System and all points on the Distribution System. The Trading Boundary is the notional balancing point for generation and supply and is the point of sale for trading in the SEM at which the title for all products and services settled through the trading arrangements set out in the Code transfers. All volumes traded or settled at the Trading Boundary are adjusted to reflect Transmission Losses and (where applicable) Distribution Losses. For the avoidance of doubt, for all Supplier Units or Generator Units that are Distribution Connected, the Trading Boundary is not the specific boundary between the Transmission System and Distribution System for that Unit and so appropriate Transmission Loss Adjustment Factors also apply to volumes associated with these Units in order to ensure that they are appropriately adjusted for Transmission Losses incurred as electricity is transported to (or from) the Trading Boundary from (or to) the relevant boundary of the Transmission System and the Distribution System for that Unit.
<b>Trading Charges</b>	means all charges required to be made in respect of a Supplier Unit during a Trading Period and comprises Energy Charges and Imperfections Charges.
<b>Trading Day</b>	means a 24-hour period containing forty eight 30-minute Trading Periods, except on the clock change days in spring and autumn when the Trading Day will last for 23 and 25 hours respectively. The first Trading Period of the Trading Day commences at 06:00.
<b>Trading Day Exchange Rate</b>	means the exchange rate between Pounds Sterling and Euro for the next Trading Day set at 08:00 the day before the Trading Day. The Trading Day Exchange Rate is based upon the rules of setting the Trading Day Exchange Rate defined in the banking agreement between the Market Operator and the SEM Bank.
<b>Trading Payments</b>	means payments to Participants in respect of their Generator Units over a Billing Period. Such payments will comprise Energy Payments, Constraint Payments, Uninstructed Imbalance Payments and Make Whole Payments less any Testing Charges.
<b>Trading Period</b>	means a thirty minute period beginning on each hour or half-hour.
<b>Trading Site</b>	means one or more Generator Units and at most one Trading Site Supplier Unit of which all Generator Units are covered by a single Connection Agreement, or in the event that no Connection Agreement exists, all such Units are located on a Contiguous Site, or as described in paragraphs 2.44 to 2.48C.
<b>Trading Site Supplier Unit</b>	means a Supplier Unit that contains only the Demand within a Trading Site, and is settled on a net basis against the Generator Units on that Trading Site under the rules specified in the Code.

<b>Transmission Asset Owner</b>	means, at any given time, the Transmission System owner licensed under section 14(1)(g) (inserted by Regulation 32) of the Act of 1999 in Ireland and the Transmission Owner licensed under Article 10(1)(b) of the Electricity (Northern Ireland) Order 1992 in Northern Ireland.
<b>Transmission Connected</b>	means directly connected electrically to Transmission System.
<b>Transmission Loss Adjustment Factor or TLAF</b>	means the factor, proposed by the relevant System Operator and approved by the Regulatory Authorities for each Unit in each Trading Period to adjust the Output or Demand of that Unit for the effect of Transmission Losses.
<b>Transmission Losses</b>	means losses that are incurred (or avoided) on the Transmission System as electricity is transported to (or from) the Trading Boundary from (or to) the relevant point of Connection to the Transmission System for the Generator Unit or Supplier Unit.
<b>Transmission Network</b>	means the network as specified in the Grid Code.
<b>Transmission System</b>	<p>means, in respect of Ireland, a system which consists wholly or mainly of high voltage lines and electric plant and which is used for conveying electricity from a generating station to a substation, from one generating station to another, from one substation to another or to or from any Interconnector or to final customers, but shall not include any such lines which may from time to time, with the approval of the Commission, specify as being part of the Distribution System and shall not include any Interconnector; and</p> <p>means, in respect of Northern Ireland, a system which consists wholly or mainly of high voltage lines and electrical plant and is used for conveying electricity from a generating station to a substation; from one generating station to another; from one substation to another; to a substation in Northern Ireland; from a place outside Northern Ireland; or from a substation in Northern Ireland to a place outside Northern Ireland but shall not include any Interconnector. "Transmission System for Ireland" and "Transmission System for Northern Ireland" shall be construed accordingly.</p>
<b>Type 1 Channel</b>	means the type of Communication Channel defined in paragraph 3.3 as a Type 1 Channel and more particularly described in Agreed Procedure 3 "Communication Channel Qualification".
<b>Type 2 Channel</b>	means the type of Communication Channel defined in paragraph 3.3 as a Type 2 Channel and more particularly described in Agreed Procedure 3 "Communication Channel Qualification".
<b>Type 3 Channel</b>	means the type of Communication Channel defined in paragraph 3.3 as a Type 3 Channel and as more particularly described in Agreed Procedure 3 "Communication Channel Qualification".



<b>Undefined Exposure Period</b>	means, for any Working Day, the period from the latest Trading Day for which results have been published in a Settlement Statement, in the case of Trading Charges exposure and from the last Trading Day in the latest Invoice for Capacity Charges in the case of Capacity Charges, in each case to the point in time when, following payment default, a Participant's Units could be suspended. Such periods are published in the Settlement Calendar.
<b>Undefined Potential Exposure</b>	means the potential credit exposure resulting from accrued obligations that have not yet been included in any Settlement Statements and from undefined obligations which would be likely to have accrued before a Participant's Units could be Suspended from trading in the Pool for payment default.
<b>Under Test</b>	means the under test status accorded to certain Generator Units by the relevant System Operator in accordance with the relevant Grid Code. Under Test in accordance with the Code is subject to the requirements both that the Market Operator has verified the status with the relevant System Operator and that the relevant Unit is so permitted as set out in paragraph 5.133A.
<b>Uninstructed Imbalance</b>	means the difference between the Dispatch Quantity and the Actual Output of a Generator Unit.
<b>Uninstructed Imbalance Payment</b>	means a payment in respect of a Generator Unit when its Actual Output differs from its Dispatch Quantity by an amount greater than its Tolerance Band. Such payments may be positive or negative.
<b>Unit</b>	means a Generator Unit or Supplier Unit or all of them, as the case may be.
<b>Unit Commitment Schedule</b>	means a schedule determined by each run of the MSP Software prior to the calculation of Market Schedule Quantities, and denotes, for each Price Maker Generator Unit, whether or not it will be scheduled to generate in each Trading Period in the Optimisation Time Horizon.
<b>Unit Owner</b>	means, in respect of any Generator or Generator Unit (as the context permits), the person who owns or ultimately controls that Generator or Generator Unit.
<b>Unit Load</b>	means the difference between the Gross Output and Net Output of a Generator Unit, which reflects the load associated with the Generator Unit.
<b>Unit Registration</b>	means registration of a Unit in accordance with Section 2.
<b>Unit Under Test End Date</b>	means the date specified in a Generator Unit Under Test Notice as the end date for Under Test status for a Generator Unit.
<b>Unit Under Test Ending Trading Day</b>	means the Trading Day on which Under Test status ceases to apply for a Generator Unit.
<b>Unit Under Test Start Date</b>	means the date specified in a Generator Unit Under Test Notice as the start date for Under Test status for a Generator Unit.
<b>Unit Under Test Starting Trading Day</b>	means the Trading Day on which Under Test status begins to apply for a Generator Unit.

<b>United Kingdom</b>	means the United Kingdom of Great Britain and Northern Ireland established pursuant to the Act of Union, 1800 and reconstituted by the Government of Ireland Act, 1920 and the Republic of Ireland Act, 1949.
<b>Unsecured Bad Capacity Debt</b>	means an Unsecured Bad Debt that has arisen based on a Shortfall arising from non-payment of Capacity Charges.
<b>Unsecured Bad Debt</b>	means a debt which arises as a result of the events set out in paragraph 6.33E and including Unsecured Bad Energy Debt and Unsecured Bad Capacity Debt. For the avoidance of doubt, this definition applies only for the purposes of the Code, and is not intended to imply that any particular sum is a “bad debt” within the meaning of this expression in any financial or accounting definition, standard or practice.
<b>Unsecured Bad Energy Debt</b>	means Unsecured Bad Debt that has arisen based on a Shortfall arising from non-payment of Energy Charges.
<b>Upheld Dispute</b>	means a Dispute becomes an Upheld Dispute when the Dispute Resolution Board or other Competent Authority has resolved the Dispute in accordance with the Dispute Resolution Process and has determined that Settlement Items have changed as a result of the Dispute.
<b>Uplift</b>	means a component of the System Marginal price for each Trading Period which is calculated to reflect the Start Up Cost and No Load Cost elements of Schedule Production Cost for each Price Maker Generator Unit (excluding Pumped Storage Units) in each Contiguous Operation Period, as set out in Appendix N.
<b>Uplift Alpha (<math>\alpha</math>)</b>	means a parameter used in the calculation of Uplift to determine the importance of the Uplift Cost Objective. The value of Uplift Alpha lies between 0 and 1 (inclusive).
<b>Uplift Beta (<math>\beta</math>)</b>	means a parameter used in the calculation of Uplift to determine the importance of the Uplift Profile Objective. The value of Uplift Beta lies between 0 and 1 (inclusive) and $\alpha + \beta = 1$ .
<b>Uplift Cost Objective</b>	means that part of the Uplift algorithm as set out in paragraph 4.49A.
<b>Uplift Delta (<math>\delta</math>)</b>	means a parameter used in the calculation of Uplift to cap the overall impact on Energy Payments arising from Uplift in each Trading Day compared with the minimum level. The value of Uplift Delta lies between 0 and 1 (inclusive).
<b>Uplift Profile Objective</b>	means that part of the Uplift algorithm as set out in paragraph 4.49A.
<b>Urgent</b>	means in relation to a Modification Proposal, that it has been designated to be Urgent and will be therefore treated with a fast-track Modifications Process.
<b>Use of System Agreements</b>	means a form of agreement between a Participant and either the Distribution System Operator or the Transmission System Operator, as appropriate, for the use of their network in respect of any or all of the Participant’s Units.

<b>Utilities Directive</b>	Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors.
<b>Valid MSP Solution</b>	has the meaning laid out in paragraph 4.50B.
<b>Validated</b>	means, in relation to a Data Transaction, that the Data Transaction has been determined by the Market Operator to be valid.
<b>Validation Notice</b>	means a notice sent by the Market Operator to the Sending Party specifying that the Data Transaction concerned is valid and has been accepted by the Market Operator.
<b>Value Added Tax or VAT</b>	means, in respect of Ireland, the value added tax chargeable under the provisions of the Irish Value Added Tax Act, 1972 (as amended) or any substitute or replacement tax on the supply of goods or services; and  means, in respect of Northern Ireland, the Value Added Tax Act 1994.
<b>Value of Lost Load or VOLL</b>	means the value which represents the end customer's willingness to lose supply determined in accordance with paragraph 4.74. The Value of Lost Load is used in the determination of Capacity Payments.
<b>Variable Generator Unit</b>	means a Wind Power Unit or a Run-of-River Hydro Unit that is Dispatchable, where the short-term availability of the Generator Unit is unpredictable as a result of its fuel source.
<b>Variable Market Operator Price</b>	means the Unit price at which the Market Operator Charge is levied on Participants. The Variable Market Operator Price is proposed annually by the Market Operator and approved by the Regulatory Authorities.
<b>Variable Price Maker Generator Unit</b>	means a Variable Generator Unit which is a Price Maker Generator Unit.
<b>Variable Price Taker Generator Unit</b>	means a Variable Generator Unit which is a Price Taker Generator Unit.
<b>Voluntary Termination</b>	means the voluntary Termination of a Party at its own request and in accordance with paragraphs 2.230 to 2.233.
<b>Voluntary Termination Consent Order</b>	means an order from the Market Operator to a Party pursuant to paragraph 2.232.
<b>Voluntary Termination Date</b>	means the last Trading Day after which the Party proposes that Termination shall be effective, as specified in a Voluntary Termination Consent Order in accordance with paragraphs 2.232A.
<b>Warm Cooling Boundary</b>	means the period of time, which must be greater than that defined by the Hot Cooling Boundary, post Desynchronisation of a Generator Unit after which the Generator Unit's Warmth State transfers from being Warm to Cold.
<b>Warm Start</b>	means any Synchronisation of a Generator Unit that has previously not been Synchronised for a period of time equal to or longer than its Accepted Hot Cooling Boundary but shorter than its Accepted Warm Cooling Boundary.

<b>Warm Start Up Cost</b>	means Start Up Costs associated with a Warm Start.
<b>Warmth State</b>	means either cold, warm, or hot, as defined under the timeframes since last Desynchronisations for Cold Start, Warm Start or Hot Start respectively.
<b>Warning Limit</b>	means that when a Participant's Required Credit Cover reaches the percentage of its Posted Credit Cover specified in its Warning Limit, the Market Operator will issue a warning of that fact to the Participant. The maximum level of the Warning Limit will be proposed annually by the Market Operator and approved by the Regulatory Authorities. An individual Participant may reduce its Warning Limit, but may not increase it above the maximum approved by the Regulatory Authorities.
<b>Warning Notice</b>	means a Notice sent by the Market Operator in accordance with paragraph 6.163.
<b>Week</b>	means a period of seven consecutive days.
<b>Week Day</b>	means a week day (Monday to Friday inclusive) regardless of whether or not such day is a bank holiday in either Jurisdiction, unless the Market Operator has, for the purpose of carrying out the maintenance of IT systems, provided in the relevant Settlement Calendar that such day shall not be a considered a Week Day.
<b>Weekly Peak Demand Forecast</b>	as defined in Appendix M.
<b>Wind Power Unit</b>	means a Generator Unit generating electricity from wind energy.
<b>Wind Power Unit Forecast</b>	means a projection of the Output produced by Wind Power Units, excluding Autonomous Generator Units, for each Trading Period in the following two Trading Days as forecast by the System Operators. The associated Data Transaction is detailed in Appendix E.
<b>Working Day or WD</b>	means 9am-5pm period on a weekday which is not a public holiday or bank holiday in Ireland or Northern Ireland.
<b>Year</b>	means a period commencing at 00:00h on 1 January and ending at 23:59h on the next occurring 31 December.

## LIST OF SUBSCRIPTS

In the Code the names of defined variables (which are shown in capitals) are (where necessary) followed by lower case “subscripts” which show the entity or entities to which the variable relates. The meaning of those “subscripts” is shown below. Where there is more than one “subscript”, the variable concerned has more than one dimension; that is, it relates to more than one entity. For example the “subscript” uh would show that the variable concerned represented the value that applies to a Generator Unit u in a Trading Period h. Similarly, the variable MWP in the table below, has the subscripts u and b showing that it represents the value of the Make Whole Payment for Generator Unit u in Billing Period b.

<b>Subscript</b>	<b>Meaning</b>
a	Settlement Reallocation Agreement
b	Billing Period
c	Capacity Period
d	Settlement Day
e	Currency Zone
f	Actual Exposure Period
g	The Working Day of the calculation for the Undefined Exposure Period
h	Trading Period
i	Number of a Price Quantity Pair
j	Not used
k	Temporary use for the Bid/offer pair under consideration for cost calculations
l	Interconnector
m	Month
n	Used to denote an integer value – not used as a subscript
o	Not used
p	Participant
q	Uninvoiced Capacity Period
r	Settlement Risk Period
s	Trading Site
t	Trading Day
u	Generator Unit
v	Supplier Unit
w	Warmth State (Hot/Warm/Cold)
x	Temporary subscript in relation to Constraint Payments in Section 4
y	Year
z	Optimisation Time Horizon Uninvoiced Billing Period (only in Section 6)

<b>Subscript</b>	<b>Meaning</b>
$\gamma$	Historical Assessment Period for Billing Periods
$\eta$	Counter variable for all Settlement Days within the Historical Assessment Period
$\mu$	Counter variable for all Trading Periods within the Historical Assessment Period.
$\rho$	Historical Assessment Period for Capacity Periods
$\theta$	Uninvoiced Billing Period

## LIST OF VARIABLES, APPLICABLE SUBSCRIPTS AND UNITS

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

Name	Term	Subscripts	Units	Description
Actual Availability	AA	uh	MW	Actual Availability from Generator Unit u in Trading Period h, expressed as average MW over the period (ex-post)
Annual Capacity Exchange Rate	ACER	y		Annual Capacity Exchange Rate for Year y
Annual Capacity Payment Sum	ACPS	y	€	Annual Capacity Payment Sum payable to Generator Units and recovered from Supplier Units for Year y
Aggregate Export Capacity	AEC	lh	MW	Maximum export capacity for Interconnector l in Trading Period h.
Actual Generator Exposure	AGE	pf	€	Actual exposure for Participant p in Actual Exposure Period f in respect of their Generator Units
Aggregate Import Capacity	AIC	lh	MW	Maximum import capacity for Interconnector l in Trading Period h
Analysis Percentile Parameter	AnPP	None	%	AnPP is the parameter to determine the percentage of credit risk that should be covered by the Required Credit Cover in relation to the Undefined Exposure Period
Actual Output	AO	uh	MW	Actual Output from Generator Unit u in Trading Period h, expressed as average MW over the period
Availability Profile	AP	uh	MW	Availability in MW of Generator Unit u in Trading Period h, calculated ex-post, on basis of average real time physical availability of the Unit
Access Quantity	AQ	uh	MW	Access Quantity for Generator Unit u in Trading Period h
Actual Supplier Exposure	ASE	pf	€	Actual exposure for Participant p in Actual Exposure Period f in respect of their Supplier Units
Average System Frequency	AVGFRQ	h	hz	Average System Frequency in Trading Period h, used in the determination of Uninstructed Imbalances
Balancing Cost	BC	b	€	Charge on the Market Operator in respect of Billing Period b
Billing Period Currency Cost	BPC	d	€	The cost or benefit that is created in respect of each Settlement Day d based upon the difference between currency rates between the time of data creation and the payment of Invoices and Self Billing Invoices

<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
Billing Period Currency Charge	BPCC	pb	€	The charge made to Participant p for Billing Period b to recovery the Billing Period Currency cost
Standard Deviation of Billing Period Settlement Sum (Supplier)	BSDSVS	pg	€	The standard deviation of the Billing Period Settlement sum in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for Undefined Exposure Period g for Participant p in respect of its Supplier Units
Standard Deviation of Billing Period Settlement Sum (Generator)	BSDSVU	pg	€	The standard deviation of the Billing Period Settlement sum in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for Undefined Exposure Period g for Participant p in respect of its Generator Units
Billing Period Settlement Value	BSVS	pg	€	The Billing Period Settlement Value in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for the Undefined Exposure Period g for Participant p in respect of its Supplier Units
Billing Period Settlement Value	BSVU	pg	€	The Billing Period Settlement value in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for the Undefined Exposure Period for Participant p in respect of its Generator Units
Billing Period Undefined Potential Exposure (Generator)	BUPEG	pg	€	The Billing Period Undefined Potential Exposure in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for Participant p in respect of its Generator Units for the Undefined Exposure Period g
Billing Period Undefined Potential Exposure (Supplier)	BUPES	pg	€	The Billing Period Undefined Potential Exposure in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for Participant p in respect of its Supplier Units for the Undefined Exposure Period g
Mean of Billing Period Settlement Sum	BXSVU	pg	€	The mean of Billing Period Settlement Sum in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for the Undefined Exposure Period g for a Participant p in respect of its Generator Units
Credit Assessment Price	CAP	g	€/MWh	The Credit Assessment Price for the Undefined Exposure Period g
Capacity Period Currency Cost	CAPC	c	€	The cost of currency movements related to Capacity Period c



<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
Capacity Period Currency Charge	CAPCC	pc	€	The charge made to Participant p for Capacity Period c to recovery the Capacity Period Currency cost
Credit Assessment Volume (Generator Unit)	CAVG	ph	MWh	The Credit Assessment Volume for the Supplier Units of a New or Adjusted Participant p will be based on forecast values from the Participant
Credit Assessment Volume (Supplier Unit)	CAVS	ph	MWh	The Credit Assessment Volume for the Supplier Units of a New or Adjusted Participant p in Trading Period h will be based on forecast values from the Participant
Capacity Charge	CC	vh	€	Capacity Charge for Supplier Unit v in Trading Period h
Constraint Payment	CONP	uh	€	Constraint Payment due to Generator Unit u in respect of Trading Period h
Constraint Payment (Unit)	CONPU	ud	€	Total Constraint Payment made to a Participant in respect of a Generator Unit u in respect of Settlement Day d
Capacity Payment	CP	uh	€	Capacity Payment for Generator Unit u in Trading Period h
Capacity Period Charge (Supplier Unit)	CPC	vc	€	Capacity Period Charge for Supplier Unit v in Capacity Period c
Capacity Payments Demand Price	CPDP	h	€/MWh	The price for Demand capacity payments in Trading Periods h
The count of all Capacity Payments Demand Prices	CPDPHAP	g	Number	The count of all Capacity Payments Demand Prices in the Historical Assessment Period for Capacity Periods p to be applied for the Undefined Exposure Period g
Capacity Period Demand Scaling Price	CPDSP	c	€/MWh	Capacity Period Demand Scaling Price for each Capacity Period c
Loss-Adjusted Capacity Payments Eligible Availability	CPEALF	uh	MWh	The loss-adjusted availability of a Generator Unit u that is eligible for capacity payments in Trading Period h in MWh
Capacity Period Ex-Post Generation Scaling Price	CPEGSP	c	€/MWh	Capacity Period Ex-Post Generation Scaling Price in Capacity Period c
Capacity Period Ex-Post Sum	CPES	c	€	The part of the Capacity Period Payment Sum in each Capacity Period c that is paid under the ex-post methodology
Capacity Period Fixed Generation Scaling Price	CPFGSP	c	€/MWh	Capacity Period Fixed Generation Scaling Price in Capacity Period c

<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
Capacity Period Fixed Sum	CPFS	c	€	The part of the Capacity Period Payment Sum in each Capacity Period c that is paid under the fixed methodology
Capacity Payments Generation Price	CPGP	h	€/MWh	The price for generation capacity payments in Trading Periods h
Capacity Payments Generation Price Factor	CPGPF	uh	Factor	Capacity Payments Generation Price Factor for Generator Unit u in Trading Period h
Count of Capacity Period Charges	CPHAP	g	Number	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
Capacity Period Payment (Generator Unit)	CPP	uc	€	Capacity Period Payment for Generator Unit u in Capacity Period c
Capacity Payments Price Factor	CPPF	h	Factor	Capacity Payments Price Factor for Trading Period h in the Capacity Period c
Capacity Period Payment Sum	CPPS	c	€	Capacity Period Payment Sum payable to Generator Units and recovered from Supplier Units in each Capacity Period c
Capacity Period Variable Generation Scaling Price	CPVGSP	c	€	Capacity Period Variable Generation Scaling Price in Capacity Period c
Capacity Period Variable Sum	CPVS	c	€	Capacity Period Variable Sum in Capacity Period c
Capacity Period Standard Deviation of Settlement Sums (Supplier)	CSDSVS	pg	€	The Capacity Period standard deviation in the Historical Assessment Period for Capacity Periods p to be applied for the Undefined Exposure Period g for a Participant p respect of its Supplier Units
Capacity Period Standard Deviation of Settlement Sums (Generator)	CSDSVU	pg	€	The Capacity Period standard deviation in the Historical Assessment Period for Capacity Periods p to be applied for the Undefined Exposure Period g for a Participant p respect of its Generator Units
Capacity Period Settlement Sum (Supplier)	CSVS	pg	€	The Capacity Period Settlement Sum in the Historical Assessment Period for Capacity Periods p for the Undefined Exposure Period g for Participant p in respect of its Supplier Units

<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
Capacity Period Settlement Sum (Generator)	CSVU	pg	€	The Capacity Period Settlement Sum in the Historical Assessment Period for Capacity Periods p for the Undefined Exposure Period g for Participant p in respect of its Generator Units
Capacity Period Undefined Potential Exposure (Generator)	CUPEG	pg	€	Undefined potential exposure for a Participant p in respect of Capacity Charges in relation to its Generator Units in the Undefined Exposure Period g
Capacity Period Undefined Potential Exposure (Supplier)	CUPES	pg	€	Undefined potential exposure for a Participant p in respect of Capacity Charges in relation to its Supplier Units in the Undefined Exposure Period g
Mean of the Capacity Period Settlement Sum (Supplier)	CXSVS	pg	€	The mean of the Capacity Period Settlement Sum in the Historical Assessment Period for Capacity Periods p to be applied for the Undefined Exposure Period g for Participant p in respect of its Supplier Units
Mean of the Capacity Period Settlement Sum (Generator)	CXSVU	pg	€	The mean of the Capacity Period Settlement Sum in the Historical Assessment Period for Capacity Periods p to be applied for the Undefined Exposure Period g for Participant p in respect of its Generator Units
Total Energy Charge (Daily)	DAYCD	d	€	Total of all Charges on all Suppliers in respect of Settlement Day d
Total Charge (Unit)	DAYCV	vd	€	Total of all Charges on Supplier Unit v in respect of Settlement Day d
Total Payments (Daily)	DAYPD	d	€	Total of all Payments made to all Units in respect of Settlement Day d
Total Payments (Unit)	DAYPU	ud	€	Total of all Payments made to Generator Unit u in respect of Settlement Day d
Decremental Price	DECP	uh	€/MWh	Decremental Price for Generator Unit u in Trading Period h used in the calculation of Constraint Payments for Price Taker Generator Units
Dispatch No Load Cost	DNLC	uh	€/hour	Dispatch No Load Cost for Generator Unit u in Trading Period h
Discount for Over Generation	DOG	uh	Proportion	Discount for Over Generation for Generator Unit u in Trading Period h, where $0 \leq DOG_{uh} \leq 1$
Dispatch Offer Price	DOP	uh	€/MWh	Dispatch Offer Price of Generator Unit u in Trading Period h, equal to last Puhi corresponding to Dispatch Quantity

<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
Dispatch Quantity	DQ	uh	MW	Dispatch Quantity for Generator Unit u in Trading Period h (average power)
Dispatch Quantity (revised)	DQ'	uh	MW	Revised Dispatch Quantity for Generator Unit u in Trading Period h (average power) applicable when a Maximisation Instruction is issued by the SO
Dispatch Quantity Cost Correction	DQCC	uh	€/hour	Dispatch Quantity Cost Correction for Generator u in Trading Period h used in the calculation of Constraint Payments
Dispatch Start Up Costs	DSUC	uh	€	Dispatch Start Up Cost for Generator Unit u in Trading Period h
Eligible Availability	EA	uh	MW	Eligible availability for Capacity Payments, expressed in average MW, for Generator Unit u in Trading Period h
Ex-Post Capacity Payments Generation Price	ECGP	h	€/MWh	Ex-Post Capacity Payments Generation Price in Trading Period h
Estimated Capacity Price	ECP	g	€/MWh	The Estimated Capacity Price for the Undefined Exposure Period g
Ex-Post Capacity Payments Proportion	ECPP	y	Proportion	Ex-Post Capacity Payments Proportion for Year y
Ex-Post Capacity Payments Weighting Factor	ECPWF	h	Factor	Ex-Post Capacity Payments Weighting Factor in Trading Period h
Eligible Generation Availability	EGA	uh	MW	Eligible availability for generation mode of Pumped Storage Units u in Trading Period h
Ex-Post Margin	EM	h	MWh	Ex-Post Margin in Trading Period h
Energy Charges	ENC	vh	€/MWh	The Energy Charge recoverable in respect of Supplier Unit v in Trading Period h
Energy Charge (Unit)	ENCV	vd	€	Total Energy Charge on Supplier Unit v in respect of Settlement Day d
Engineering Limit	ENGLIM	uh	MW	Engineering Limit for Generator Unit u for Trading Period h used in calculation of Uninstructed Imbalances
Engineering Tolerance	ENGTOL	None	Scalar %	Engineering Tolerance used in calculation of Uninstructed Imbalances
Energy Payments	ENP	uh	€/MWh	The Energy Payment payable to Generator Unit u in Trading Period h

Name	Term	Subscripts	Units	Description
Energy Payment (Unit)	ENPU	ud	€	Total Energy Payment made to Generator Unit u in respect of Settlement Day d
Eligible Netting Quantity	ENQ	sh	MW	Quantity eligible for net treatment at a Trading Site s in Trading Period h
Firm Access Quantity (Unit)	FAQ	uh	MW	Firm Access Quantity for Generator Unit u in Trading Period h, represents lower bound on Availability within the MSP Software (the Capacity in MW, net of Unit Load, for Generator Unit u, that has firm access (deep connection) to the Transmission System, as agreed between the Participant in respect of that Generator Unit and the System Operator)
Firm Access Quantity (Site)	FAQS	st	MW	Firm Access Quantity for Site s in Trading Day t, represents lower bound on Availability within the MSP Software (the Capacity in MW, net of Unit Load, for Generator Unit u, that has firm access (deep connection) to the Transmission System, as agreed between the Participant in respect of that Generator Unit and the System Operator)
Fixed Capacity Payments Generation Price	FCGP	h	€/MWh	The fixed price element of generation capacity payments in each Trading Period h in Capacity Period c
Fixed Capacity Payments Proportion	FCPP	y	Proportion	Fixed Capacity Payments Proportion for Year y
Fixed Capacity Payments Weighting Factor	FCPWF	h	factor	Fixed Capacity Payments Weighting Factor for each Trading Period h in Capacity Period c
Fixed Credit Requirement (Generator Unit)	FCRG	y	€	The fixed portion of the Required Credit Cover for Participants for their Generator Units set annually ex ante for Year y
Fixed Credit Requirement (Supplier Unit)	FCRS	y	€	The fixed portion of the Required Credit Cover for Participants for their Supplier Units set annually ex ante for Year y
Forecast Demand	FD	h	MW	Forecast of Demand in Trading Period h based on the Annual Load Forecast Data
Fixed Unit Load	FUL	u	MW	Fixed Unit Load for Generator Unit u such that $FUL_u \geq 0$ and is recorded as part of Unit Registration
Invoiced Capacity Charge	ICC	pc	€	Invoiced Capacity Charge to a Participant p in respect of its registered Supplier Units for Capacity Period c

<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
Invoiced Capacity Payment	ICP	pc	€	Invoiced Capacity Payment to a Participant p in respect of its registered Generator Units for Capacity Period c
Interim Eligible Availability	IEA	uh	MW	Eligible availability for Capacity Payments, expressed in average MW, for Generator Unit u in Trading Period h
Invoice Energy Charge	IEC	pb	€	Charge to each Participant p in respect of its Supplier Units for Energy and for a Billing Period b
Interim Ex-Post Capacity Payments Weighting Factor	IECPWF	h	Factor	Interim Ex-Post Capacity Payments Weighting Factor in Trading Period h
Interim Eligible Generation Availability	IEGA	h	MW	Interim Eligible Generation Availability for Pumped Storage Unit u in Trading Period h
Interim Ex-Post Margin	IEM	h	MWh	Interim Ex-Post Margin in Trading Period h
Invoice Energy Payment	IEP	pb	€	Payment to each Participant p in respect of its Generator Units for Energy and for a Billing Period b
Invoiced Fixed Market Operator Annual Charges (Generator Unit)	IMOACU	py	€	Invoiced Fixed Market Operator Annual Charges for Participant p for Year y, in respect of its Generator Units
Invoiced Fixed Market Operator Annual Charges (Supplier Unit)	IMOACV	py	€	Invoiced Fixed Market Operator Annual Charges for Participant p for Year y, in respect of its Supplier Units
Interconnector Metered Generation	IMG	lh	MWh	Interconnector Metered Generation (import positive, export negative) for Interconnector l in Trading Period h
Imperfections Price	IMP	y	€/MWh	Imperfections Price for Year y
Imperfections Charge	IMPC	vh	€	Imperfections Charge on Supplier Unit v in respect of Trading Period h
Total Imperfections Charges (Unit)	IMPCV	vd	€	Total Imperfections Charge on Supplier Unit v in respect of Settlement Day d
Imperfections Charge Factor	IMPF	h	Factor	Imperfections Charge Factor for Trading Period h
Interim Ex-Post Loss of Load Probability	l $\phi$	h	Probability	The probability that there will be insufficient available generation capacity to meet Demand (calculated using ex-post data) for each Trading Period h, calculated in accordance with the Function for the Determination of Capacity Payments

<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
Margin	M	h	MWh	Ex-ante forecast of Margin in Trading Period h
Metered Demand	MD	vh	MWh	Metered Demand in Trading Period h for Supplier Unit v after adjustment for Distribution Losses
Metered Generation	MG	uh	MWh	Metered Generation for Generator Unit u in Trading Period h
Minimum Stable Generation	MINGEN	uh	MW	Minimum sustainable Output level for Generator Unit u for Trading Period h
Minimum Off Time	MINoff	ut	hours	Minimum Off Time for Generator Unit u for Trading Day t
Minimum On Time	MINon	ut	hours	Minimum On Time for Generator Unit u for Trading Day t
Minimum Output	MINOUT	uh	MW	Minimum Output of Generator Unit u in Trading Period h, net of Unit Demand
Market No Load Cost	MNLC	uh	€/hour	Market No Load Cost for Generator Unit u in Trading Period h
Fixed Market Operator Charge (Generator Unit)	MOAUC	uy	€	The fixed annual fee for Market Operator operating cost for Year y for Generator Units u
Fixed Market Operator Charge (Supplier Unit)	MOAVC	vy	€	The fixed annual fee for Market Operator operating cost for Year y for Supplier Units v
Market Offer Price	MOP	uh	€/MWh	Market Offer Price of Generator Unit u in Trading Period h, equal to last Puhi in schedule
MSP Schedule Production Cost	MSPC	uh	€	MSP Schedule Production Cost, calculated for use within the MSP Software in accordance with Appendix N
Market Schedule Quantity	MSQ	uh	MW	Market Schedule Quantity for Generator Unit u in Trading Period h (average power level during Trading Period)
Market Schedule Quantity Cost Correction	MSQCC	uh	€/hour	Market Schedule Cost Correction for Generator Unit u in Trading Period h used in the calculation of Schedule Production Cost
Market Start Up Costs	MSUC	uh	€	Market Start Up Cost for Generator Unit u in Trading Period h
Make Whole Payment	MWP	ub	€	Make Whole Payment made in each Billing Period b to Generator Unit u
MW Tolerance	MWTOL	t	MW	Parameter for Trading Day t used in calculation of Uninstructed Imbalances
Net Demand	ND	vh	MWh	Net Demand in Trading Period h of Supplier Unit v
Net Inter Jurisdictional Import	NIJI	eh	MWh	Total net import to Jurisdiction e from the other Jurisdiction e in the SEM across all relevant points of connection in Trading Period h

Name	Term	Subscripts	Units	Description
No Load Cost	NLC	uh	€/hour	The element of operating cost for Generator Unit u in Trading Period h, expressed in €/hour, submitted as part of Commercial Offer Data, that is invariant with the level of Output and incurred at all times when the level of Output is greater than zero
Nominal System Frequency	NORFR Q	h	hz	Nominal System Frequency in Trading Period h. Will normally have a value of 50.00 ± 0.05 Hz.
Nominated Quantity	NQ	uh	MW	The Nominated Quantity of Output for a Price Taker Generator Unit u in Trading Period h
Price	P	uhi	€/MWh	ith price Accepted for Generator Unit u in respect of Trading Period h
Market Price Cap	PCAP	None	€/MWh	The Market Price Cap as determined by the Regulatory Authorities
Market Price Floor	PFLOOR	None	€/MWh	The Market Price Floor as determined by the Regulatory Authorities
Pumped Storage Cycle Efficiency	PSCE	ut	Proportion	Pumped Storage Cycle Efficiency for Pumped Storage Unit u in Trading Day t. The ratio between the gross electrical energy consumed to pump a given quantity of water from the lower reservoir to the upper reservoir and the net electrical energy sent out through the release of that quantity of water from the upper reservoir to the lower reservoir through the turbine-generators.
Maximum Storage Capacity	PSMAXL	ut	MWh	Maximum Storage Capacity for Pumped Storage Unit u in Trading Day t, expressed in terms of generation capability
Minimum Storage Capacity	PSMINL	ut	MWh	Minimum energy storage capacity for Pumped Storage Unit u in Trading Day t, expressed in terms of generation capability
Target Reservoir Level	PSTRL	ut	MWh	Reservoir level at a predefined Trading Period for Pumped Storage Unit u for Trading Day t
Pumped Storage Unscheduled Capacity Daily Price	PSUCDP	ut	€/MWh	Pumped Storage Unscheduled Capacity Daily Price for Pumped Storage Unit u in Trading Day t, used to determine capacity payments for Pumped Storage Units for any unused generation capacity
Premium for Under Generation	PUG	uh	Proportion	Premium for Under Generation for Generator Unit u in Trading Period h, where $0 \leq PUGuh \leq 1$
Quantity	Q	uhi	MW	ith quantity Accepted for Generator Unit u in respect of Trading Period h



<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
Registered Capacity	RC	u	MW	Registered Capacity of Generator Unit u
Required Credit Cover	RCC	pr	€	Required Credit Cover for each Participant p in respect of all its Units in the Settlement Risk Period r
Required Credit Cover (Generator Unit)	RCCG	pr	€	The Required Credit Cover in respect of the Settlement Risk Period r for each Participant p in respect of its Registered Generator Units
Required Credit Cover (Supplier Unit)	RCCS	pr	€	The Required Credit Cover in respect of the Settlement Risk Period r for each Participant p in respect of its Registered Supplier Units
Ramp Down Rate	RDR	uw	MW/min	Ramp Down Rate for Warmth State w for Generator Unit u
Ramp Up Rate	RUR	uw	MW/min	Ramp Up Rate for Warmth State w for Generator Unit u
Site Access Quantity	SAQ	sh	MW	Site Access Quantity for Trading Site s in Trading Period h
Standard deviation of the aggregated Capacity Payments Demand Prices	SDCPDP	g	€/MWh	The standard deviation of the aggregated Capacity Payments Demand Prices in the Historical Assessment Period for Capacity Periods p to be applied for the Undefined Exposure Period g
The standard deviation of the System Marginal Price	SDSMP	g	€/MWh	The standard deviation of the System Marginal Price in the Historical Assessment Period for Billing Periods γ to be applied for the Undefined Exposure Period g
Energy Limit	SEL	ut	MWh	The maximum limit for the accumulated energy output for an Energy Limited Generator Unit u in Trading Day t
SO Interconnector Export Price	SIEP	lh	€/MWh	Volume-weighted average price, for each Trading Period h, of SO Interconnector Trades which are for export from the SEM, for each Interconnector l
SO Interconnector Export Quantity	SIEQ	lh	MW	Time-weighted average quantity for each Trading Period h (expressed as a negative number in MW) of SO Interconnector Trades which are for export from the SEM, for each Interconnector l
SO Interconnector Import Price	SIIP	lh	€/MWh	Volume-weighted average price, for each Trading Period, of SO Interconnector Trades which are for import to the SEM, for each Interconnector

<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
SO Interconnector Import Quantity	SIIQ	lh	MW	Time-weighted average quantity for each Trading Period h (expressed as a positive number in MW) of SO Interconnector Trades which are for import to the SEM, for each Interconnector l
System Marginal Price	SMP	h	€/MWh	System Marginal Price in Trading Period h
The count of all System Marginal Prices	SMPHAP	g	number	The count of all SMPs in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for the Undefined Exposure Period g
Shadow Price	SP	h	€/MWh	Shadow Price component of SMP for Trading Period h, determined by the MSP Software
Settlement Reallocation Capacity Amount	SSRCA	aph	€	Settlement Reallocation Capacity Amount for a Participant p in respect of its registered Generator Units for a given Trading Period h defined in Settlement Reallocation Agreement a
Settlement Reallocation Energy Amount	SSREA	aph	€	Settlement Reallocation Energy Amount for a Participant p in respect of its registered Generator Units for a given Trading Period h defined in Settlement Reallocation Agreement a
Short-term Maximisation Capability	STMC	ut	MW	Maximum Output capability of Generator Unit u in Trading Day t; this may be greater than the Registered Capacity
Start Up Cost	SUC	uh	€	Start Up Cost for Demand Side Unit u for Trading Period h
Testing Charge	TCHARGE	uh	€/MWh	Testing Charge applicable to Generator Unit u in each Trading Period h
Testing Charge (Unit)	TCHARGE EU	ud	€	Testing Charge applicable to Generator Unit u for each Settlement Day d
Transmission Loss Adjustment Factor	TLAF	uh, vh	Factor	Transmission Loss Adjustment Factor (determined ex ante) applicable to Generator Unit u or Supplier Unit v as appropriate in Trading Period h. Transmission Loss Adjustment factors are as calculated by the relevant System Operator
Tolerance For Over Generation	TOLOG	uh	MW	Tolerance for Over Generation for Generator Unit u in Trading Period h as determined by the System Operators and approved by the Regulatory Authorities
Tolerance For Under Generation	TOLUG	uh	MW	Tolerance for Under Generation for Generator Unit u, in Trading Period h as determined by the System Operators and approved by the Regulatory Authorities

Name	Term	Subscripts	Units	Description
Trading Period Duration	TPD	None	hours	Trading period duration in hours (equal to 0.5 which defines a half hour Trading Period)
Testing Tariff	TTARIFF	uh	€/MWh	Testing Tariff applicable to each testing Generator Unit u in Trading Period h as proposed by the System Operator and approved by the Regulatory Authorities
Unsecured Bad Capacity Debt	UBCD	c	€	The actual amount of Unsecured Bad Capacity Debt in a Capacity Period c
Unsecured Bad Debt Capacity Charge	UBDCC	pc	€	Unsecured Bad Debt Capacity Charge to a Participant p in respect of its registered Generator Units in the relevant Capacity Period c
Unsecured Bad Debt Energy Charge	UBDEC	pb	€	Unsecured Bad Debt Energy Charge to Participant p in respect of its registered Generator Units in the relevant Billing Period b
Unsecured Bad Energy Debt	UBED	b	€	The actual amount of Unsecured Bad Energy Debt in a Billing Period b
Unscheduled Capacity Offer Price	UCOP	uhi	€/MWh	Unscheduled Capacity Offer Price for Pumped Storage Unit u for Price Quantity Pair I which is applicable in Trading Period h
Unscheduled Capacity Offer Quantity	UCOQ	uhi	MW	Unscheduled Capacity Offer Quantity for Pumped Storage Unit u for Price Quantity Pair I which is applicable in Trading Period h
The sum of the Capacity Payments Demand Prices	UCPDP	g	€/MWh	The sum of the Capacity Payments Demand Prices in the Historical Assessment Period for Capacity Periods p to be applied for the for the Undefined Exposure Period g
Number of days in the Undefined Exposure Period for Billing Periods	UEPBD	g	number	The number of days in the Undefined Exposure Period for Billing Periods g relevant to the Working Day of the calculation of the Required Credit Cover
Number of days in the Undefined Exposure Period for Capacity Periods	UEPCD	g	number	The number of days in the Undefined Exposure Period for Capacity Periods g relevant to the Working Day of the calculation of the Required Credit Cover
Unit Load Scalar	ULS	u	Proportion	Unit Load Scalar for Generator Unit u such that $0 \leq ULS_u \leq 1$ and is recorded as part of Unit Registration
Mean Value of Capacity Payments Demand Prices	UMCPD P	g	€/MWh	The mean value of the Capacity Payments Demand Prices in the Historical Assessment Period for Capacity Periods p to be applied for the Undefined Exposure Period g

<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
The mean value of aggregated SMP	UMSMP	g	€/MWh	The mean value of aggregated SMP in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for the Undefined Exposure Period $g$
Uninstructed Imbalance Payment	UNIMP	uh	€	Uninstructed Imbalance payment to Participants in respect of Generator Unit $u$ in Trading Period $h$
Total Uninstructed Imbalance Payment (Unit)	UNIMPU	ud	€	Total Uninstructed Imbalance Payment for Generator Unit $u$ in respect of Settlement Day $d$
Undefined Potential Exposure (Generator)	UPEG	pg	€	The Undefined Generator Exposure for each New or Adjusted Participant $p$ in respect of its Generator Units for the Undefined Exposure Period $g$
Undefined Potential Exposure (Supplier)	UPES	pg	€	The undefined potential Supplier Exposure for each New or Adjusted Participant $p$ in respect of its Supplier Units for the Undefined Exposure Period $g$
Uplift	UPLIFT	h	€/MWh	A component of SMP for each Trading Period $h$ which is calculated to reflect the Start Up and No Load Cost components of Schedule Production Cost for each Price Maker Generator Unit
System per Unit Regulation	UREG	None	Factor	System per Unit Regulation parameter, used in the calculation of Uninstructed Imbalance tolerances
Sum of SMP	USMP	g	€/MWh	The sum of the SMPs for each Trading Period $h$ in the Historical Assessment Period for Billing Periods $\gamma$ to be applied for the Undefined Exposure Period $g$
Variable Capacity Payments Generation Price	VCGP	h	€/MWh	Variable Capacity Generation Price for each Trading Period $h$ in Capacity Period $c$
Variable Capacity Payments Weighting Factor	VCPWF	h	Factor	Capacity Payments Weighting Factor for each Trading Period $h$ in Capacity Period $c$
Variable Market Operator Charge	VMOC	pb	€	Variable Market Operator Charge for a Participant $p$ in the relevant Billing Period $b$ in respect of its registered Supplier Units
Variable Market Operator Price	VMOP	y	€	The Variable Market Operator Price for Year $y$
Value of Lost Load	VOLL	None	€/MWh	Estimate for the value that consumers would place on a unit of non-delivered electricity as determined by the Regulatory Authorities

<b>Name</b>	<b>Term</b>	<b>Subscripts</b>	<b>Units</b>	<b>Description</b>
Loss Factor Adjustment	XXXLF	N/A		These letters, appended to any variable name XXX, indicate that the variable has been adjusted for ex ante losses, so that the quantity is measured at the Trading Boundary
Uplift $\alpha$	$\alpha$	None	Factor	Uplift Alpha parameter value used in the calculation of Uplift to determine the importance of the cost objective
Uplift $\beta$	$\beta$	None	Factor	Uplift Beta parameter value used in the calculation of Uplift to determine the importance of the profile objective
Uplift $\delta$	$\delta$	None	Factor	Uplift Delta parameter value used in the calculation of Uplift to constrain the overall cost
Loss of Load Probability	$\lambda$	h	Probability	The probability that there will be insufficient available generation capacity to meet Demand (calculated using ex-ante data) for each Trading Period h, calculated in accordance with the Function for the Determination of Capacity Payments
Ex-Post Loss of Load Probability	$\varphi$	h	Probability	The probability that there will be insufficient available generation capacity to meet Demand (calculated using ex-post data) for each Trading Period h, calculated in accordance with the Function for the Determination of Capacity Payments

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## APPENDIX A: STANDARD LETTER OF CREDIT

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A.1 This appendix contains a standard template for a Letter of Credit..

### **MARKET OPERATOR EURO/STERLING IRREVOCABLE STANDBY LETTER OF CREDIT TEMPLATE**

Applicant: .....

Issuing Bank: .....

Advising Bank/SEM Bank: .....

Beneficiary: The Market Operator under the SEM Trading and Settlement Code being a joint venture between EirGrid plc and SONI Limited and trading as AIME (the "Beneficiary")

Dear Sirs,

We, the Issuing Bank, hereby issue our irrevocable Standby Letter of Credit No..... by order of ..... (applicant), for a maximum total amount of EUR/Sterling..... (in words.....) which expires at the counters of the Advising Bank on [insert date] subject to extension as described below.

In this Letter of Credit and in the Beneficiary Statement (except where the context otherwise requires or there is an express provision to the contrary) the following expressions shall have the following meanings:

"Beneficiary Statement" means a statement in the form of the Appendix attached hereto;

"Same Day Value" means that the relevant funds shall be available to the Beneficiary on the same day as the funds transfer has been authorised by us without any loss of value arising between such authorisation and the funds being available for use by the Beneficiary;

"SWIFT" means [define]

"Trading and Settlement Code" means the document of that name (as amended from time to time) established by the Market Operator pursuant to its Market Operator Licence granted pursuant to the Electricity Regulation Act 1999 to which the applicant is a party;

This irrevocable Standby Letter of Credit is available by payment at sight against presentation to the Advising Bank of a Beneficiary Statement.

Conditions:

1. Partial drawings are allowed.
2. The expiry date of this Standby Letter of Credit will automatically be extended for a period of one calendar year from its current or any future expiry date unless we serve notice by SWIFT to the Advising Bank not less than one calendar month before the current or any future expiry date that this Standby Letter of Credit will not automatically be extended and will expire on its then current expiry

date. The date of transmission of any such SWIFT notice will be deemed to be the date that notice is served.

3. The Beneficiary Statement must be made on original letterhead paper of the Beneficiary and signed on its behalf.
4. Upon receipt of a signed Beneficiary Statement in compliance with the above conditions the Advising Bank is required promptly to notify us by SWIFT of receipt of such Beneficiary Statement and inform us of the relevant details of such Beneficiary Statement. Provided such notification is received by us no later than 14.00 hrs on any weekday on which banks are open for business in Dublin or Belfast, we shall make payment under this Standby Letter of Credit for Same Day Value on that day or if received after 14.00hrs on the next such weekday in accordance with such notification and shall confirm payment by notifying the Advising Bank by SWIFT
5. Where we, the Issuing Bank are also the Advising Bank, we may revise the above notification requirements as appropriate provided that this shall in no way affect the obligation on us to make payment under this Standby Letter of Credit.
6. All opening bank charges are for the account of the applicant.
7. All advising/paying bank charges are for the account of the applicant.

Except where otherwise expressly stated, this Standby Letter of Credit is subject to Uniform Customs and Practice for Documentary Credits latest version on the date of the issuance of this Standby Letter of Credit [MOST RECENT VERSION TO BE INSERTED].

We the Issuing Bank hereby waive any right to set off or counterclaim whatsoever against any amounts payable under this Standby Letter of Credit in respect of any claims we may have against the Beneficiary and such amounts shall be paid free and clear of all deductions or withholdings whatsoever.

This letter of Credit shall be governed by and construed in accordance with the laws of Northern Ireland

Yours faithfully

[Issuing Bank]

by (Authorised Signatory)

## APPENDIX

[Market Operator letterhead]

We, the Market Operator under the Trading and Settlement Code (the “Beneficiary”) hereby state that [insert applicant’s name] is in default of its obligation to pay pursuant to the Trading and Settlement Code (to which the applicant is a party) under paragraph [ insert details]

and as a result we hereby demand .....[insert amount being claimed] under Standby Letter of Credit number..... issued by .....[insert name of Issuing Bank]. Payment in respect of this Beneficiary Statement shall be effected immediately to [insert relevant account details]. We confirm that the signatory(ies) to this Beneficiary Statement are empowered to sign and make this Beneficiary Statement on behalf of the Beneficiary.

Terms defined in the Standby Letter of Credit referred to above have the same meaning when used in this Beneficiary Statement.



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## APPENDIX B: PARTICIPANT AND UNIT REGISTRATION AND DEREGISTRATION

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### Introduction

- B.1 This Appendix B sets out the data requirements for the registration and deregistration of Participants and of Units. It should be noted that a Party becomes a Participant upon the registration of the first Unit to that Party as set out in paragraph 2.21.

### Participation Notice

- B.2 In completing a Participation Notice as set out in paragraph 2.22, a Party (or an Applicant as applicable) shall include the additional Registration Data pursuant to paragraph 2.22 18. as set out in Table 4 below.

**Table 4: Data, required from Party registering the Unit**

Name	Term	Relevant Units
Firm Access Quantity for the Trading Site (MW)	FAQSst	All Generator Units except Interconnector Units, Interconnector Error Units and Interconnector Residual Capacity Units
Fixed Unit Load (MW)	FULu	All Generator Units except Interconnector Units, Interconnector Error Units and Interconnector Residual Capacity Units
Unit Load Scalar	ULSu	All Generator Units except Interconnector Units, Interconnector Error Units and Interconnector Residual Capacity Units
Registered Capacity (MW)	RCu	All Generator Units except Interconnector Units, Interconnector Error Units and Interconnector Residual Capacity Units
Meter Point Registration Number (in respect of the Generator demand)		All Generator Units except Interconnector Units, Interconnector Error Units and Interconnector Residual Capacity Units
Generic Settlement Class		All Generator Units
Priority Dispatch		All Generator Units except Interconnector Units, Interconnector Error Units and Interconnector Residual Capacity Units
Associated Interconnector		Only Interconnector Units, Interconnector Error Units and Interconnector Residual Capacity Units
Possible Demand Reduction (nominal)		Demand Side Units only

### **Agreed Procedure**

- B.3 Agreed Procedure 1 "Participant and Unit Registration and Deregistration" sets out the detail of the registration process and must include all requirements set out in this Appendix B.
- B.4 Agreed Procedure 1 "Participant and Unit Registration and Deregistration" shall set out the detail of the process of data flow between the Market Operator and the Party (or Applicant as appropriate) to register new Units as described at a high level under the following paragraphs: 2.19, 2.20, 2.22, 2.23, 2.23A, 2.24, 2.25, 2.26, 2.27, 2.28, 2.29, 2.30, 2.30A, 2.30B, 2.32, 2.32A, 2.41, 2.42, 2.49, 2.51, 2.52A, 2.53, 2.56, 2.57, 2.59, 2.65, 2.68, 2.69, 2.70, 2.74, 2.75, 2.75A, 2.76, 2.77, 2.77A, 2.77B, 2.77C, 3.2, 3.11, 3.77E and 3.81A.
- B.5 Agreed Procedure 1 "Participant and Unit Registration and Deregistration" shall provide for the validation of the data flows set out in paragraph B.4, as described under the following paragraphs: 2.22.1, 2.22.2, 2.22.3, 2.22.4, 2.22.5, 2.22.6, 2.22.7, 2.22.8, 2.22.9, 2.22.10, 2.22.11, 2.22.12, 2.22.13, 2.22.14, 2.22.15, 2.22.16, 2.22.17, 2.22.18, 2.27, 2.30.1, 2.30.2, 2.30.3, 2.30.4, 2.31, 2.31.1, 2.31.2, 2.31.3, 2.37, 2.38, 2.38.1, 2.38.2, 2.39, 2.40A, 2.40A.1, 2.40A.2, 2.40A.3, 2.40A.4, 2.40A.5, 2.40A.6, 2.44, 2.45, 2.45A, 2.46, 2.47, 2.48A, 2.48A1, 2.48B, 2.48C, 2.48D, 2.48F, 2.50, 2.52, 2.52.1, 2.52.2, 2.52.3, 2.52.4, 2.52.5, 2.52.6, 2.58, 2.61, 2.66, 2.70.1, 2.70.2, 2.72, 2.75, 2.77B.1 and 2.77B.2.

### **Currency**

- B.6 All data comprising currency amounts submitted as part of registration will be submitted by the relevant Party to the Market Operator in the currency of the designated Currency Zone of the Unit.

### **Missing Data**

- B.7 The Market Operator will not apply any default rules in the event that any registration data is missing or incomplete. Such data will have to be provided by the Party (or Applicant as applicable) before the registration of the Unit can become effective.

### **Communications Channels**

- B.8 For Parties that have completed Communication Channel Qualification, the Market Operator will facilitate receipt of data for the purposes of registration of new Units over Type 2 and Type 3 Communication Channels. The Market Operator will facilitate a Type 1 Communication Channel for other Parties. The Market Operator will similarly facilitate receipt any clarification or additional information required pursuant to paragraph 2.28.

### **Registration Withdrawal**

- B.9 Where a Unit registration is deemed withdrawn under paragraphs 2.29, 2.30A, or 2.32A, the Market Operator shall send a Notice to the relevant Party or Applicant as appropriate. The Notice shall include sufficient information to identify the Unit concerned, and shall provide a reason for the Unit registration withdrawal.

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## **APPENDIX C: OFFER DATA**

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### **Introduction**

- C.1 This Appendix C sets out the components of Commercial Offer Data and Technical Offer Data in respect of each relevant category of Generator Unit and refers to the Code obligations relating to such data. In addition, this Appendix C sets out the requirements to be met by Agreed Procedure 4 "Data Transaction Submission and Validation".

### **Commercial Offer Data**

- C.2 Each Participant shall submit Commercial Offer Data to the Market Operator in respect of each of its Generator Units in accordance with the following provisions, subject to paragraphs C.3 to C.10 inclusive:
1. Commercial Offer Data shall be submitted before Gate Closure and no more than 28 days before Gate Closure as set out in paragraph 4.3;
  2. Price Quantity Pairs shall be submitted as set out in paragraph 4.7, 4.8 and 4.10;
  3. No Load Costs shall be submitted as set out in paragraph 4.15;
  4. Start Up Costs shall be submitted as set out in paragraphs 4.15A, 4.15B and 4.15D to 4.15G;
  5. Where more than one value of Start Up Costs is submitted, the Participant concerned must specify to which type of start (Cold Start, Warm Start or Hot Start) it applies;
  6. Data shall be submitted net of Unit Load as set out in paragraph 4.6; and
  7. Values of Currency shall be submitted as set out in paragraph 4.5A.

### ***Predictable Price Taker Generator Unit Rules***

- C.3 In respect of each Predictable Price Taker Generator Unit which is not Under Test, the relevant Participant shall submit Commercial Offer Data as set out in paragraph C.2 with the following exceptions:
1. A Nomination Profile shall be submitted in accordance with paragraphs 5.10 to 5.13; and
  2. A Decremental Price shall be submitted in accordance with paragraph 5.13A.

### ***Variable Price Taker Generator Unit Rules***

- C.4 In respect of each Variable Price Taker Generator Unit which is not Under Test, the relevant Participant shall submit Commercial Offer Data as set out in paragraph C.2 with the following exceptions:
1. Only a Nomination Profile in accordance with paragraphs 5.14 and 5.15 and a Decremental Price in accordance with paragraph 5.15A shall be submitted.

### ***Autonomous Generator Unit Rules***

- C.5 In respect of each Autonomous Generator Unit, the relevant Participant shall not submit Commercial Offer Data as set out in paragraph 5.16

***Interconnector Unit Rules***

- C.6 In respect of each Interconnector Unit, the relevant Participant shall submit Commercial Offer Data as set out below:
1. Commercial Offer Data shall be submitted before Gate Closure and no more that 28 days before Gate Closure as set out in paragraph 4.3;
  2. Values of Currency shall be submitted as set out in paragraph 4.5A;
  3. Data shall be submitted in accordance with paragraphs 5.46, 5.51, 5.53 and 5.54; and
  4. Price Quantity Pairs, Maximum Interconnector Unit Import Capacity and Maximum Interconnector Unit Export Capacity shall be submitted as set out in paragraph, 4.8, 4.10 and 5.47

***Interconnector Residual Capacity Unit Rules***

- C.6A In respect of each Interconnector Residual Capacity Unit, the relevant Participant shall not submit Commercial Offer Data.

***Energy Limited Generator Unit Rules***

- C.7 In respect of each Energy Limited Generator Unit which is not Under Test, the relevant Participant shall submit Commercial Offer Data as set out in paragraph C.2 with no exceptions.

***Pumped Storage Unit Rules***

- C.8 In respect of each Pumped Storage Unit, the relevant Participant shall submit Commercial Offer Data as set out in paragraph C.2 with the following exceptions:
1. Data shall be submitted in accordance with paragraph 5.95; and
  2. Target Reservoir Level and Pumped Storage Cycle Efficiency shall be submitted in accordance with paragraph 5.97.

***Demand Side Unit Rules***

- C.9 In respect of each Demand Side Unit which is not Under Test, the relevant Participant shall submit Commercial Offer Data as set out in paragraph C.2 with the following exceptions:
1. Neither No Load Costs nor Start Up Costs shall be submitted as set out in paragraph 5.126B; and
  2. A Shut Down Cost shall be submitted in accordance with paragraph 5.126C.

***Generator Units Under Test Rules***

- C.10 In respect of each Generator Unit Under Test, the relevant Participant shall submit Commercial Offer Data as set out in paragraph C.2 with the following exceptions:
1. A Nomination Profile shall be submitted in accordance with paragraph 5.135;
  2. No Price Quantity Pairs, Start Up Costs, Shut Down Costs or No Load Costs shall be submitted as set out in paragraph 5.136; and

3. A Decremental Price of zero shall be submitted in accordance with paragraph 5.136A.

#### **Technical Offer Data**

C.11 Each Participant shall submit Technical Offer Data to the Market Operator in respect of each of its Generator Units in accordance with the following provisions, subject to the exceptions outlined in paragraphs C.12 to C.19 inclusive:

1. Technical Offer Data shall be submitted before Gate Closure and no more than 28 days before Gate Closure as set out in paragraph 4.3 and relevant
2. Data shall be submitted net of Unit Load as set out in paragraph 4.17;
3. A Hot Cooling Boundary and a Warm Cooling Boundary shall be submitted in accordance with paragraph 4.15C;
4. A Forecast Availability Profile shall be submitted in accordance with paragraph 4.18;
5. A Forecast Minimum Output Profile shall be submitted in accordance with paragraph 4.19;
6. A Forecast Minimum Stable Generation Profile shall be submitted in accordance with paragraph 4.20;
7. A Short-Term Maximisation Capability, a Minimum Generation (which shall not be used under the Code) and a Maximum Generation shall be submitted. The Maximum Generation shall be submitted equal to the Registered Capacity of the Generator Unit; and
8. In addition, for Generator Units, the relevant Participant shall submit the following data items :
  - a. Minimum On Time,
  - b. Minimum Off Time,
  - c. Maximum On Time,
  - d. Synchronous Start Up Time Hot,
  - e. Synchronous Start Up Time Warm,
  - f. Synchronous Start Up time Cold,
  - g. Block Load Cold,
  - h. Block Load Hot,
  - i. Block Load Warm,
  - j. Deload Break Point,
  - k. Deloading Rate 1,
  - l. Deloading Rate 2,
  - m. Dwell Time 1,
  - n. Dwell Time 2,
  - o. Dwell Time 3,
  - p. Dwell Time Trigger Point 1,

- q. Dwell Time Trigger Point 2,
- r. Dwell Time Trigger Point 3,
- s. End Point of Start Up Period,
- t. Load Up Break Point Cold (1),
- u. Load Up Break Point Cold (2),
- v. Load Up Break Point Hot (1),
- w. Load Up Break Point Hot (2),
- x. Load Up Break Point Warm (1),
- y. Load Up Break Point Warm (2),
- z. Loading Rate Cold (1),
- aa. Loading Rate Cold (2),
- bb. Loading Rate Cold (3),
- cc. Loading Rate Hot (1),
- dd. Loading Rate Hot (2),
- ee. Loading Rate Hot (3),
- ff. Loading Rate Warm (1),
- gg. Loading Rate Warm (2),
- hh. Loading Rate Warm (3),
- ii. Ramp Down Break Point 1,
- jj. Ramp Down Break Point 2,
- kk. Ramp Down Break Point 3,
- ll. Ramp Down Break Point 4,
- mm. Ramp Down Rate 1,
- nn. Ramp Down Rate 2,
- oo. Ramp Down Rate 3,
- pp. Ramp Down Rate 4,
- qq. Ramp Down Rate 5,
- rr. Ramp Up Break Point 1,
- ss. Ramp Up Break Point 2,
- tt. Ramp Up Break Point 3,
- uu. Ramp Up Break Point 4,
- vv. Ramp Up Rate 1,
- ww. Ramp Up Rate 2,
- xx. Ramp Up Rate 3,
- yy. Ramp Up Rate 4,
- zz. Ramp Up Rate 5,
- aaa. Soak Time Cold (1),

- bbb. Soak Time Cold (2),
- ccc. Soak Time Trigger Point Cold (1),
- ddd. Soak Time Trigger Point Cold (2),
- eee. Soak Time Hot (1),
- fff. Soak Time Hot (2),
- ggg. Soak Time Trigger Point Hot (1),
- hhh. Soak Time Trigger Point Hot (2),
- iii. Soak Time Warm (1),
- jjj. Soak Time Warm (2),
- kkk. Soak Time Trigger Point Warm (1), and
- lll. Soak Time Trigger Point Warm (2).

C.12 Intentionally blank.

C.13 Intentionally blank.

***Autonomous Generator Unit Rules***

C.14 In respect of each Autonomous Generator Unit, as set out in paragraph 5.16, the relevant Participant shall not submit Technical Offer Data.

***Interconnector Unit Rules***

C.15 In respect of each Interconnector Unit, as set out in paragraph 5.48, the relevant Participant shall not submit Technical Offer Data.

***Interconnector Residual Capacity Unit Rules***

C.15A In respect of each Interconnector Residual Capacity Unit, the relevant Participant shall not submit Technical Offer Data.

***Energy Limited Generator Unit Rules***

C.16 In respect of each Energy Limited Generator Unit, the relevant Participant shall submit Technical Offer Data as set out in paragraph C.11 with the following exceptions:

1. An Energy Limit, Energy Limit Start, Energy Limit Stop and Energy Limit Factor shall be submitted in accordance with paragraph 5.85; and
2. Values for the Energy Limit Start and Energy Limit Stop parameters shall be submitted for the Trading Period starting at 06:00 on the Trading Day and for the Trading Period ending at 06:00 on the next Trading Day respectively.

***Pumped Storage Unit Rules***

C.17 In respect of each Pumped Storage Unit, the relevant Participant shall submit Technical Offer Data as set out in paragraph C.11 with the following exceptions:

1. A Target Reservoir Level Percentage, Maximum Reserve Storage Capacity and Minimum Reserve Storage Capacity shall be submitted in accordance with paragraph 5.97;

2. A Forecast Minimum Output Profile, Forecast Minimum Stable Generation Profile and a Forecast Availability Profile shall be submitted as set out in paragraphs 4, 5.97A and 5.97B respectively; and
3. A Pumping Capacity.

#### ***Demand Side Unit Rules***

- C.18 In respect of each Demand Side Unit, the relevant Participant shall submit Technical Offer Data comprising only:
1. Forecast Availability Profile;
  2. Forecast Minimum Output Profile;
  3. Forecast Minimum Stable Generation Profile;
  4. Maximum Ramp Down Rate;
  5. Maximum Ramp Up Rate;
  6. Minimum Down Time; and
  7. Maximum Down Time.
- C.19 Intentionally blank.

#### **Default Data**

- C.20 Each Participant shall review and update default values for Commercial Offer Data and Technical Offer Data in respect of each of its Generator Units in accordance with paragraph 3.48, excluding Interconnector Units for which Default Data shall not be submitted as set out in paragraph 5.48.

#### **Agreed Procedure 4**

- C.21 Agreed Procedure 4 "Data Transaction Submission and Validation" describes the business processes by which Participants shall submit Commercial Offer Data and Technical Offer Data in accordance with the Code, and refers to any relevant technical documentation. I
- C.22 The business process in Agreed Procedure 4 "Data Transaction Submission and Validation" details the groupings of the data required in a Transaction, and the technical IT interface required for a submitted Commercial Offer Data and Technical Offer Data Transaction to be Accepted by the Market Operator.
- C.23 Agreed Procedure 4 "Data Transaction Submission and Validation" provide that Offer Data can be submitted at least 28 days in advance of the Trading Day to which it applies, and can be submitted an unlimited number of times in advance of Gate Closure, and will be facilitated generally by both Type 2 and Type 3 Communication Channels, except where Agreed Procedure 7 "Emergency Communications" applies.
- C.24 Obligations in respect of Commercial Offer Data that do not need to be reflected in Agreed Procedure 4 "Data Transaction Submission and Validation" are:
1. in respect of all Generator Units as set out in paragraphs 4.5A, 4.6, 4.8, 4.10, 4.28 and 5.83A;
  2. in respect of Predictable Price Taker Generator Units as set out in paragraphs 5.12, 5.13, 5.13A;



3. in respect of Variable Price Taker Generator Units as set out in paragraphs 5.15 and 5.15A;
  4. in respect of Interconnector Units as set out in paragraphs 5.33A, 5.33B, 5.50, 5.51, 5.52, 5.53;
  5. in respect of Pumped Storage Units as set out in paragraphs 5.95 and 5.97J; and
  6. in respect of Demand Side Units as set out in paragraph 5.124.
- C.25 Obligations in respect of Technical Offer Data that do not need to be reflected in Agreed Procedure 4 "Data Transaction Submission and Validation" are:
1. in respect of all Generator Units as set out in paragraphs 4.17, 4.17A, 4.18, 4.19, 4.20, 4.21A, 4.28 and 5.83A;
  2. in respect of Variable Price Taker Generator Units as set out in paragraph 5.14;
  3. in respect of Energy Limited Generator Units as set out in paragraphs 5.86 and 5.86A;
  4. in respect of Pumped Storage Units as set out in paragraphs 5.97A, 5.97B, 5.97D1, 5.97E, 5.97H, 5.97I, 5.97J; and
  5. in respect of Demand Side Units as set out in paragraphs 5.124 and 5.125.

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## APPENDIX D: MARKET OPERATOR AND SYSTEM OPERATOR DATA TRANSACTIONS

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- D.1 This Appendix D sets out the data that the Market Operator is required to send to the System Operators, and the rules relating to the sending of such data, as well as certain validation obligations of the System Operators.
- D.2 Agreed Procedure 4 "Data Transaction Submission and Validation" sets out further detail in relation to the data transfer obligations set out in this Appendix D.
- D.3 The Market Operator shall submit to the System Operators within two Working Days of receipt from a Participant, but no later than 13:00 one Working Day before the Trading Day on which it is to become effective, any update to the Registration Data of any of that Participant's Units
- D.3A The full set of registration details are set out in Appendix B.
- D.3B The System Operator for the Currency Zone in which the Participant is registered shall validate the registration details and confirm to the Market Operator whether the registration information is accurate with respect to the data that such System Operator holds under the applicable Grid Code.
- D.4 The Market Operator shall submit to the System Operators within two Working Days of receipt from a Participant, but no later than 13:00 one Working Day before the Trading Day on which it is to become effective, all Generator Unit Under Test Notices..
- D.4A The form of Generator Unit Under Test Notice is set out in Appendix J.
- D.4B The System Operator for the Currency Zone in which the Participant is registered shall validate the Generator Unit Under Test Notice and confirm to the Market Operator whether the Generator Unit is Under Test.
- D.5 The Market Operator shall submit to the System Operators, no later than 30 minutes after Gate Closure for a Trading Day, the full set of Accepted Technical Offer Data and Accepted Commercial Offer Data for all Generator Units for all Trading Periods for that Trading Day.
- D.5A The Data Transactions associated with Technical Offer Data and Commercial Offer Data, and the rules for the submission of such data, are set out in Appendix C.
- D.5B The System Operators shall not be required to validate any Commercial Offer Data or Technical Offer Data.
- D.6 The Market Operator shall submit to the System Operators any Suspension Order, any notice of the lifting of a Suspension Order, or any Termination Order at the same time as such Suspension Order, notice of the lifting of a Suspension Order or Termination Order is submitted to the relevant Participant as described under paragraphs 2.219, 2.224, and 2.229.
- D.6A The System Operators shall not be required to validate any Termination Order or Suspension Order.
- D.7 The Market Operator shall submit to the System Operators the aggregate of all Modified Interconnector User Nominations ("Aggregate Modified Interconnector Unit Nomination") to produce a net import or export on each Interconnector for each Trading Period in the Trading Day, no later than two hours after Gate Closure in accordance with paragraph 5.58A, or as

available after its recalculation in the Trading Day in accordance with paragraph 5.61A.

- D.7A The System Operators shall not be required to validate any Aggregate Modified Interconnector Unit Nomination.
- D.8 Intentionally blank.
- D.9 The Market Operator shall submit all currency values to the System Operators in the Participant's designated Currency.
- D.10 During normal operation of the Market Operator's Isolated Market System, the Market Operator shall only utilise a Type 3 Communication Channel for the communication of the data in this Appendix to the System Operators, with the exception of Suspension Orders, notice of the lifting of Suspension Orders, and Termination Orders, for which the Market Operator shall utilise a Type 1 Communication Channel. If the Type 3 Communication Channel is unavailable for communication of any data to a System Operator as required by this Appendix, the Market Operator shall utilise a Type 1 Communication Channel for the communication of such data.

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## **APPENDIX E: MARKET DATA TRANSACTIONS**

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- E.1 This Appendix E outlines the detailed Data Record requirements for the other Data Transactions sent by the System Operator to Market Operator, from the Interconnector Administrator to the Market Operator and the Market Operator to the Interconnector Users not defined in other Appendices, and the associated high-level Data Transaction Submission protocols.
- E.2 The Data Transactions Category in this Appendix include:
- Transactions from System Operator to Market Operator**
1. System Parameters
  2. Generator Unit Technical Characteristics
  3. System Characteristics
  4. Energy Limited Generator Unit Technical Characteristics
  5. Dispatch Instruction and SO Interconnector Trades
  6. Annual Load Forecast Data
  7. Monthly Load Forecast Data
  8. Four Day Load Forecast Data
  9. Wind Power Unit Forecast Data
  10. Uninstructed Imbalance Parameters
  11. Testing Tariffs
- Transactions from Interconnector Administrator to Market Operator**
12. Interconnector Available Transfer Capacity
  13. Active Interconnector Unit Capacity Holding
- Transactions from Market Operator to Interconnector User**
14. Modified Interconnector Unit Nominations
- E.3 Each Data Record in this Appendix which contains Currency amounts will be denominated in the Participant's designated Currency.
- E.4 There are no default rules for these Market Data Transactions. System Operators and Interconnector Administrators must confirm receipt of these Data Transactions in accordance with paragraphs 3.37 and 3.41A.
- E.5 Agreed Procedure 4 "Data Transaction Submission and Validation" will describe the detail of the Transactions listed within this Appendix E which do not relate to the operation of Interconnectors, noting the requirements for the appropriate scaling of submitted data in paragraphs 4.21A, 4.26, and 4.28.
- E.6 Agreed Procedure 2 "Interconnector Unit Capacity Right Calculations and Dispatch Notifications" will describe the detail of the Transactions within this Appendix E which do relate to the operation of Interconnectors, noting the requirements for the submitted data in paragraphs 5.39A and 5.64.

## DATA TRANSACTION AND ITS DATA RECORDS

### System Parameters Data Transaction

E.7 The Data Records for the System Parameters Data Transaction are described in Table 17a, and the Submission Protocol in Tables 17b.

#### Table 17a - System Parameters Data Transaction Data Records

Transmission Loss Adjustment Factors, TLA<sub>Fuh</sub>

---

#### Table 17b - System Parameters Data Transaction Submission Protocol

---

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	Unlimited
First Submission time	As available
Last Submission time	At least two months prior to the start of each Year, within 5 working days of approval by the Regulatory Authorities whichever is the later, or prior to the registration of a new Generator Unit
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer)
Process for data validation	None

---

**Generator Unit Technical Characteristics Data Transaction**

E.8 The Data Records for the Generator Unit Technical Characteristics Data Transaction are described in Table 19a and the Submission Protocol in Table 19b.

**Table 19a - Generator Unit Technical Characteristics Data Transaction Data Records**

Trading Day (all variables below are for all Trading Periods in this Trading Day)

Outturn Availability, spot values, by Unit ID

Outturn Minimum Stable Generation, spot values, by Unit ID

Outturn Minimum Output, spot values, by Unit ID

---

**Table 19b - Generator Unit Technical Characteristics Data Transaction Submission Protocol**

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Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	Each Generator Unit, each Trading Day
First Submission time	After end of Trading Day
Last Submission time	Before 14:00 the Day after the Trading Day in question As required to resolve a Data Query where the Data Records in the Transaction are discovered to be in error
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer) default
Process for data validation	None

---

E.9 The Data Records for the Transaction that describes an estimate of any reduction in demand as a consequence of Demand Control are described in Table 19g and the Submission Protocol in Table 19h.

**Table 19g - Transaction that describes an estimate of any reduction in demand as a result of Demand Control Data Records**

Trading Day (all variables below are for all Trading Periods in this Trading Day)

Estimate of any reduction in demand as a consequence of Demand Control, i.e. load shedding

---

**Table 19h - Transaction that describes an estimate of any reduction in demand as a result of Demand Control Data Transaction Submission Protocol**

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	Each Generator Unit, each Trading Day
First Submission time	After end of Trading Day
Last Submission time	Before 14:00 the Day after the Trading Day in question  As required to resolve a Data Query where the Data Records in the Transaction are discovered to be in error
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 1 (manual) default
Process for data validation	None

**System Characteristics Data Transaction**

E.10 The Data Records for the System Technical Characteristics Data Transaction are described in Table 19c and the Submission Protocol in Table 19d.

**Table 19c - System Characteristics Data Transaction Data Records**

Average System Frequency in Trading Period h, AVGFRQh
Nominal System Frequency in Trading Period h, NORFRQh

**Table 19d - System Characteristics Data Transaction Submission Protocol**

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	By Trading Day and Trading Period
First Submission time	After end of Trading Day
Last Submission time	By 14:00 on the next Working Day following the relevant Trading Day
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer) default
Process for data validation	None

**Energy Limited Generator Unit Technical Characteristics Data Transaction**

- E.11 The Data Records for the Energy Limited Generator Unit Technical Characteristics Data Transaction are described in Table 19e and the Submission Protocol in Table 19f.

**Table 19e - Energy Limited Generator Unit Technical Characteristics Data Transaction Data Records**

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Re-declared value of Energy Limit, SELut

---

**Table 19f - Energy Limited Generator Unit Technical Characteristics Data Transaction Submission Protocol**

---

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	Each Energy Limited Generator Unit, each Trading Day
First Submission time	After end of Trading Day
Last Submission time	By 14:00 on the Day following the end of the relevant Trading Day
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer) default
Process for data validation	None

---

**Loss of Load Probability for the Capacity Period Transaction**

- E.12 The Data Records for the Loss of Load Probability for the Capacity Period are described in Table 19i and the Submission Protocol in Table 19j.

**Table 19i - Loss of Load Probability for the Capacity Period Transaction Data Records**

---

Trading Periods in the Capacity Period

Loss of Load Probability for each Trading Period in the Capacity Period ( $\lambda h$ )

---

**Table 19j - Loss of Load Probability Table for the Year Transaction Submission Protocol**

---

Sender	System Operators
Recipient	Market Operator

---



---

Number of Data Transactions	One per Year, and as updated under Appendix M
First Submission time	As available
Last Submission time	At least 20 Working Days before the start of the Year
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 1 Channel
Process for data validation	None

---

**Ex-Post Loss of Load Probability Table Transaction**

E.13 The Data Records for the Ex-Post Loss of Load Probability Table for the Year are described in Table 19k and the Submission Protocol in Table 19l.

**Table 19k - Ex-Post Loss of Load Probability Table Transaction Data Records**

---

Input Margin (IM) MW values, from 0MW to Total Conventional Capacity (TCCy)

Output Loss of Load Probability (OLOLP<sub>IM</sub>) for all MW values from 0MW to Total Conventional Capacity (TCCy)

---

**Table 19l - Ex-Post Loss of Load Probability Table Transaction Submission Protocol**

---

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	One per Year, subject to Appendix M
First Submission time	As available
Last Submission time	20 Working Days before the start of the Year
Permitted frequency of resubmission	Once, subject to Appendix M
Valid Communication Channels	Type 1 Channel
Process for data validation	None

---

**Dispatch Instruction and SO Interconnector Trades Data Transaction**

E.14 The Data Records for the Dispatch Instruction and SO Interconnector Trades Transaction are described in Table 20a, and the Submission Protocol in Table 20b.

**Table 20a - Dispatch Instruction and SO Interconnector Trades Transaction Data Records**

---

Participant ID (Not submitted for SO Interconnector Trades)

Unit ID

Trading Day

Trading Period

Dispatch Instruction and Ramp Rate associated with that Dispatch Instruction data per Unit ID

Time and Occurrence of any Maximisation Instructions, by Unit

SO Interconnector Import Price (SIIPh)

SO Interconnector Export Price (SIEPh)

SO Interconnector Import Quantity (SIQh)

SO Interconnector Export Quantity (SEQh)

---

**Table 20b - Dispatch Instruction and SO Interconnector Trades Transaction Submission Protocol**

---

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	By Trading Day and Trading Period
First Submission time	After end of Trading Day
Last Submission time	Before 14:00 on the Day following the end of the relevant Trading Day
	As required to resolve a Data Query where the Data Records in the Transaction are discovered to be in error
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer) default
Process for data validation	None

---

**Annual Load Forecast Data Transaction**

E.15 The Data Records for the Annual Load Forecast Data Transaction are described in Table 21a, and the Submission Protocol in Table 21b.

**Table 21a - Annual Load Forecast Data Transaction Data Records**

---

Year

Annual Load Forecast values for each Trading Period in the relevant Year

Jurisdiction

---

**Table 21b - Annual Load Forecast Data Transaction Submission Protocol**

---

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	Annually
First Submission time	As available
Last Submission time	Four Months before start of Year
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer) default
Process for data validation	None

---

### Monthly Load Forecast Data Transaction

- E.16 The Data Records for the Monthly Load Forecast Data Transaction are described in Table 22a, and the Submission Protocol in Table 22b.

#### Table 22a - Monthly Load Forecast Data Transaction Data Records

---

Monthly Load Forecast values for each Trading Period in the relevant month

Jurisdiction

---

#### Table 22b - Monthly Load Forecast Data Transaction Submission Protocol

---

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	Monthly
First Submission time	Four Days before the start of Month
Last Submission time	One Day before the start of Month
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer) default
Process for data validation	None

---

### **Four Day Load Forecast Data Transaction**

E.17 The Data Records for the Four Day Load Forecast Data Transaction are described in Table 23a, and the Submission Protocol in Table 23b.

#### **Table 23a - Four Day Load Forecast Data Transaction Data Records**

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##### **Four Day Load Forecast Data Records**

Four Day Load Forecast values for each Trading Period in the relevant four day period

Jurisdiction

---

#### **Table 23b - Four Day Load Forecast Data Transaction Submission Protocol**

---

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	Daily
First Submission time	As available
Last Submission time	Before 09:30, D-1
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer) default
Process for data validation	None

---

**Wind Power Unit Forecast Data Transaction**

E.18 The Data Records for the Wind Power Unit Forecast Data Transaction are described in Table 24a, and the Submission Protocol in Table 24b.

**Table 24a - Wind Power Unit Forecast Data Transaction Data Records**

---

Dates and Trading Periods

Jurisdiction

Wind Power Unit

Output Forecast for each Wind Power Unit that is connected in the relevant Jurisdiction for each Trading Period over the following two Trading Days,

---

**Table 24b - Wind Power Unit Forecast Data Transaction Submission Protocol**

---

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	As available
First Submission time	As updated
Last Submission time	As updated
Permitted frequency of resubmission	Updated every 6 hours
Valid Communication Channels	Type 3 (computer to computer) default
Process for data validation	None

---

**Uninstructed Imbalance Parameter Transaction**

E.19 The Data Records for the Uninstructed Imbalance Parameter Transaction are described in Table 25a, and the Submission Protocol in Table 26f.

**Table 25a – Uninstructed Imbalance Parameter Transaction Data Records**

---

Engineering Tolerance (ENGTOL)
MW Tolerance (MWTOLt) for each Trading Day t
System per Unit Regulation parameter (UREG)
Discount for Over Generation (DOGuh) for each Generator Unit u in each Trading Period h
Premium for Under Generation (PUGuh) for each Generator Unit u in each Trading Period h

---

**Table 25b - Uninstructed Imbalance Parameter Transaction Submission Protocol**

---

Sender	System Operators
Recipient	Market Operator
Number of Data Transactions	Once per Year, and within Year with the approval of the Regulatory Authorities
First Submission time	As available
Last Submission time	On receipt of the Regulatory Authorities' determination on the values of the Uninstructed Imbalance Parameter Transaction and no later than two months before the start of the Year or within 5 Working Days of receipt whichever is the later
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 1 (manual)
Process for data validation	None

---

### Testing Tariffs Transaction

E.20 The Data Records for the Testing Tariffs Transaction are described in Table 26a, and the Submission Protocol in Table 26b.

#### Table 26a - Testing Tariffs Transaction Data Records

---

Testing Tariff (TTARIFF<sub>uh</sub>) applicable to Generator Unit Under Test *u* in Trading Period *h*, for all Generator Units within the Currency Zone of the System Operator

---

#### Table 26b - Testing Tariffs Transaction Submission Protocol

---

Sender	Both System Operators
Recipient	Market Operator
Number of Data Transactions	Once per Year, and within Year with the approval of the Regulatory Authorities
First Submission time	As available
Last Submission time	On receipt of the Regulatory Authorities' determination on the values of the Testing Tariffs Transaction and no later than two months before the start of the Year or within 5 Working Days of receipt whichever is the later
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 1 (manual)
Process for data validation	None

---



**Interconnector Available Transfer Capacity Data Transaction**

E.21 The Data Records for the Interconnector Available Transfer Capacity Data Transaction are described in Table 18a, and the Submission Protocol in Table 18b.

**Table 18a - Interconnector Available Transfer Capacity Data Transaction Data Records**

Maximum Import Available Transfer Capacity for each Trading Period in Optimisation Time Horizon t

Maximum Export Available Transfer Capacity for each Trading Period in Optimisation Time Horizon

---

**Table 18b - Interconnector Available Transfer Capacity Data Transaction Submission Protocol**

---

Sender	Interconnector Administrator
Recipient	Market Operator
Number of Data Transactions	Unlimited
First Submission time	As available
Last Submission time	On the day prior to Gate Closure for that Trading Day, before 09:30.
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer)
Process for data validation	None

---

### **Active Interconnector Unit Capacity Holding Data Transaction**

E.22 The Data Records for the Active Interconnector Unit Capacity Holding Data Transaction are described in Table 26c, and the Submission Protocol in Table 26d.

#### **Table 25c – Active Interconnector Unit Capacity Holding Data Transaction Data Records**

---

Trading Day and Trading Periods

Interconnector

Interconnector Unit

Held capacity (Active Interconnector Unit Import Capacity Holding and the Active Interconnector Unit Export Capacity Holding) on the Interconnector for each Trading Period for each Interconnector Unit in the Optimisation Time Horizon beginning at the start of the relevant Trading Day

---

#### **Table 25d – Active Interconnector Unit Capacity Holding Data Transaction Submission Protocol**

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Sender	Interconnector Administrator
Recipient	Market Operator
Number of Data Transactions	One per Interconnector Unit
First Submission time	After completion of all appropriate Active Interconnector Unit Capacity Holding allocations
Last Submission time	Before Gate Closure for that Trading Day
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer) default
Process for data validation	None

---

**Modified Interconnector Unit Nominations Transaction**

E.23 The Data Records for the Modified Interconnector Unit Nominations Transaction are described in Table 26i, and the Submission Protocol in Table 26j.

**Table 26i - Modified Interconnector Unit Nominations Transaction Data Records**

---

Participant
Interconnector
Interconnector Unit
Trading Period
Modified Interconnector User Nomination for all Interconnector Units registered to that Participant for all Trading Periods in the Trading Day

---

**Table 26j - Modified Interconnector Unit Nominations Transaction Submission Protocol**

---

Sender	Market Operator
Recipient	Participants with registered Interconnector Unit(s)
Number of Data Transactions	One per Trading Day, updated as required under paragraph 5.60
First Submission time	As available
Last Submission time	Before 12:00 after Gate Closure, and as available when updated under paragraph 5.60
Permitted frequency of resubmission	Unlimited
Valid Communication Channels	Type 3 (computer to computer)
Process for data validation	None

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## APPENDIX F: INVOICES AND SETTLEMENT STATEMENTS

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- F.1 This Appendix F sets out the detailed Data Record requirements for the Settlement Data Transactions (as defined in paragraph F.2), and the relevant high-level protocols for the submission by the Market Operator of such Data Transactions.
- F.2 The Settlement Data Transactions comprise the Data Records that the Market Operator shall be obliged to include in the following Statements, Invoices, Self-Billing Invoices, and Notices:
1. Generator Unit Energy Settlement Statements
  2. Supplier Unit Energy Settlement Statements
  3. Generator Unit Capacity Settlement Statements
  4. Supplier Unit Capacity Settlement Statements
  5. Market Operator Charge Invoices
  6. Participant Invoices, Participant Self Billing Invoices and Debit Notes
- F.3 The Fixed Market Operator Charge will be part of the weekly Market Operator Charge Invoice, the amounts of the Fixed Market Operator charge in relation to the periods of time described under paragraph 6.102A and 6.102C.
- F.4 The Market Operator shall denominate each Data Record in this Appendix which contains Currency amounts in the designated Currency of the relevant Participant.
- F.5 The Market Operator shall include the following identifying Data Records in each Settlement Statement and Invoice, along with sufficient information for a Participant to reasonably determine the market rules under which the Settlement Statement or Invoice was created, and to uniquely identify the Settlement Statement or Invoice during correspondence with the Market Operator:
1. Settlement Day (if applicable)
  2. Trading Period (if applicable)
  3. Billing period/capacity period
  4. Participant ID
  5. Unit ID(s) (if applicable)
  6. Settlement Amount for the given product
  7. A flag indicating if Meter Data is considered estimated by the Meter Data Provider that submitted the Meter Data
- F.6 The Market Operator shall, in relation to each Billing Period and Capacity Period, issue at least four Settlement Statements to Participants for each of their registered Units: one Indicative Settlement Statement, one Initial Settlement Statement, one Settlement Statement arising from the first Timetabled Settlement Rerun and one Settlement Statement arising from the second Timetabled Settlement Rerun.

- F.6A The Market Operator shall issue Settlement Rerun Statements to Participants for each of their registered Units in the event of any ad hoc Settlement Rerun arising from a Settlement Query, Data Query or Settlement Dispute.
- F.7 The Market Operator shall, in relation to each Billing Period and Capacity Period, issue to Participants at least one Invoice or Self-Billing Invoice based on the Initial Settlement Statements for that Billing Period or Capacity Period.
- F.7A The Market Operator shall issue to a Participant a further Invoice or further Self-Billing Invoice based on the Settlement Statements arising from Settlement Reruns, if there is a change to any amount payable or receivable as compared with the corresponding amount on the previous Invoice or previous Self-Billing Invoice for that Billing Period or Capacity Period.
- F.7B The Market Operator shall issue Invoices containing zero amount payable or zero amount receivable in the event that there is no change to the corresponding amounts payable or amounts receivable on the previous Invoice or previous Self-Billing Invoice for that Billing Period or Capacity Period.
- F.8 Participants may contest the content of the Settlement Statements through Data Queries, Settlement Queries, or Settlement Disputes processes.
- F.9 The timings under which the Market Operator shall be obliged to issue all Settlement Statements, Invoices, and Self-Billing Invoices are set out in paragraphs 6.30, 6.32, 6.35, 6.36, 6.102A, 6.102B, or as appropriate depending on the outcomes of a Data Query, Settlement Query, or Settlement Dispute.
- F.10 The Market Operator shall issue Settlement Statements for Energy Payments for Generator Units, and shall ensure that each such Settlement Statement shall provide to Participants, when considered in conjunction with other supplementary reports made available to the Participant under the same timeframes and over the same Communication Channels, inter alia, for the relevant Generator Unit *u* in each Trading Period *h* for the relevant Settlement Day in Billing Period *b*, values of:
1. Total payment for the Generator Unit
  2. Energy Payment for the Generator Unit
  3. Constraint Payments for the Generator Unit
  4. Uninstructed Imbalance Payments for the Generator Unit
  5. Charge for Bad Energy Debt
  6. Metered Generation
  7. Actual Availability
  8. Market Schedule Quantity
  9. Dispatch Quantity
  10. System Marginal Price
  11. Make Whole Payment (where calculable over the Billing Period)
  12. Settlement Statement number for previous run (if not the first Settlement Statement for Energy for those Units on that Settlement Day)

- F.11 The Market Operator shall issue Settlement Statements for Energy Charges for Supplier Units, and shall ensure that each such Settlement Statement shall provide to Participants, when considered in conjunction with other supplementary reports made available to the Participant under the same timeframes and over the same Communication Channels, inter alia, for the relevant Supplier Unit v in each Trading Period h for the relevant Settlement Day in Billing Period b, values of
1. Total Charge for Supplier Unit
  2. Energy Charge for Supplier Unit
  3. Imperfections Charge for Supplier Unit
  4. Metered Demand
  5. Net Demand
  6. System Marginal Price
  7. Settlement Statement version will be clearly indicated.
- F.12 The Market Operator shall issue Settlement Statements for Capacity Payments for Generator Units, and shall ensure that each such Settlement Statement shall provide to Participants, when considered in conjunction with other supplementary reports made available to the Participant under the same timeframes and over the same Communication Channels, inter alia, for the relevant Generator Unit u in each Trading Period h in the Capacity Period c, values of:
1. Total payment for the Generator Unit
  2. Capacity Payment
  3. Charge for Unsecured Bad Capacity Debt
  4. Eligible Availability
  5. Settlement Statement version will be clearly indicated
- F.13 The Market Operator shall issue Settlement Statements for Capacity Charges for Supplier Units, and shall ensure that each such Settlement Statement shall provide to Participants, when considered in conjunction with other supplementary reports made available to the Participant under the same timeframes and over the same Communication Channels, inter alia, for each Supplier Unit v in each Trading Period h in the Capacity Period c, values of
1. Capacity Charge for the Supplier Unit;
  2. Net Demand (NDLFvh).
  3. Settlement Statement version will be clearly indicated
- F.14 The Market Operator shall issue Market Operator Charge Invoices over the Billing Period for Participants, and shall ensure that each such Invoice shall contain, inter alia, for each Billing Period b, values of:
1. Market Operator Variable Charge
  2. Fixed Market Operator Charge
  3. Amount from the previous run (one for each item over)
  4. Invoice version will be clearly indicated

5. Any applicable interest
  6. A summary of the rates of applicable VAT applied in the Invoice and applicable VAT owing/owed by to Revenue Authorities
- F.15 The Market Operator shall issue Unsecured Bad Energy Debt Invoices over the Billing Period for Participants identifying that the Invoice is in respect of a particular Unsecured Bad Energy Debt event, and shall ensure that each such Invoice shall contain, inter alia, for each Billing Period b, values of:
1. Unsecured Bad Energy Debt Charge
  2. Invoice version will be clearly indicated
  3. Any applicable interest
  4. A summary of the rates of applicable VAT applied in the Invoice and applicable VAT owing/owed by to Revenue Authorities
- F.16 The Market Operator shall issue Unsecured Bad Capacity Debt Invoices over the Billing Period for Participants identifying that the Invoice is in respect of a particular Unsecured Bad Capacity Debt event, and shall ensure that each such Invoice shall contain, inter alia, for each Billing Period b, values of:
1. Unsecured Bad Capacity Debt Charge
  2. Invoice version will be clearly indicated
  3. Any applicable interest
  4. A summary of the rates of applicable VAT applied in the Invoice and applicable VAT owing/owed by to Revenue Authorities
- F.17 The Market Operator shall ensure that Invoices, Self Billing Invoices or Debit Notes issued by it to Participants in respect of its Units shall contain, inter alia,
1. Billing or Capacity Period
  2. Payment amount for the relevant Generator Units for relevant billing/capacity period
  3. Invoice amount for the relevant Supplier Units for relevant billing/capacity period
  4. Billing Period Currency Cost (or benefit) or Capacity Period Currency Cost (or benefit) for the relevant Participant
  5. Settlement Reallocation Amount in respect of that period
  6. Any applicable interest
  7. Total payment amount
  8. A summary of the rates of applicable VAT applied in the Invoice and applicable VAT owing/owed by to Revenue Authorities
- F.18 Agreed Procedure 15 "Invoicing" sets out more detail as to the obligations of the Market Operator set out in this Appendix F in relation to the process of issuing Settlement Statements, Invoices, Self Billing Invoices and Debit Notes, but nothing in that Agreed Procedure shall preclude the issue of any such item over any particular Communication Channel.

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## APPENDIX G: METER DATA TRANSACTIONS

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- G.1 Agreed Procedure 16 "Metered Data Provision" describes how Meter Data is grouped by Meter Data Providers into Transactions for receipt by the Market Operator, in accordance with the requirements set out in this Appendix G.
- G.2 The timing of these Meter Data Transactions is described in Agreed Procedure 16 "Metered Data Provision", in accordance with the requirements set out in this Appendix G.
- G.3 The Meter Data required for the Ex-Post Indicative and Ex-Post Initial MSP Software Runs are the Metered Generation of all Predictable Price Maker Generator Units, Variable Price Maker Generator Units, Predictable Price Taker Generator Units, and Variable Price Taker Generator Units, and the Metered Demand of Trading Site Supplier Units in Trading Sites with Non-Firm Access.
- G.4 The Meter Data required for the creation of Settlement Statements are the data required for MSP Software Runs described in paragraph G.3, the Metered Generation of Autonomous Generator Units, the Net Inter-Jurisdictional Import, the Interconnector Metered Generation, and all other Supplier Units, including Associated Supplier Units for Trading Sites with Firm Access and Non-Firm Access, and Trading Site Supplier Units for Trading Sites with Firm Access.
- G.5 The System Operators in their roles as Meter Data Providers shall provide to the Market Operator of all Meter Data required for Ex-Post Indicative MSP Software Runs and Ex-Post Initial MSP Software Runs, Meter Data for Transmission Connected Autonomous Generator Units, and Interconnector Metered Generation for Units or Interconnectors as appropriate in their Jurisdiction. The System Operators shall agree a process with the Market Operator to determine which one System Operator is responsible for the provision of the Net Inter-Jurisdictional Import Meter Data to the Market Operator.
- G.5A The System Operator in Ireland shall have responsibility for the installation, commissioning and maintenance of metering systems to such standards as are applicable under and set out in the Grid Code or Metering Code for all Transmission Connected Generation Sites in the Jurisdiction of Ireland.
- G.5B The Distribution System Operator responsible for the installation, commissioning and maintenance of metering systems at a Unit's site, shall provide reasonable access to that site and to data polled at that site to the relevant System Operator with responsibility for the provision of that Unit's Meter Data to the Market Operator. .
- G.6 Each Distribution System Operator in its role as Meter Data Provider shall provide all Meter Data required for the creation of Settlement Statements excluding those required for the Ex-Post Initial MSP Software Runs, the Meter Data for Transmission Connected Autonomous Generator Units, the Net Inter-Jurisdictional Import and the Interconnector Metered Generation to the Market Operator.
- G.6A Subject to paragraph G.5A, in respect of all Units under the Code, the Distribution System Operators shall be responsible for the installation, commissioning and maintenance of metering systems within their Jurisdiction to such standards as are applicable in and set out under in the Grid Code or Metering Code.



- G.6B Where a Distribution System Operator is responsible for the provision of a Unit's Meter Data to the Market Operator and a System Operator is responsible for the installation, commissioning and maintenance of metering systems at those Unit's sites, the relevant System Operator shall provide reasonable access to that site or polled data to the relevant Distribution System Operator.
- G.7 Meter Data Providers shall provide the Meter Data listed in paragraph G.3 for the Settlement Day to the Market Operator by 14:00 on the day following that Settlement Day, as described in Agreed Procedure 16 "Metered Data Provision".
- G.8 Meter Data Providers shall provide the Meter Data listed in paragraph G.3 for the Settlement Day to the Market Operator by 14:00 on the day which is three days after that Settlement Day, as described in Agreed Procedure 16 "Metered Data Provision".
- G.9 Meter Data Providers shall provide the Meter Data listed in paragraph G.4 to the Market Operator required for each Settlement Day by 14:00 on the first Week Day after the Settlement Day as described in Agreed Procedure 16 "Metered Data Provision".
- G.10 Meter Data Providers shall provide the Meter Data listed in paragraph G.4 to the Market Operator required for each Settlement Day by 17:00 on the fourth Week Day after the Settlement Day as described in Agreed Procedure 16 "Metered Data Provision".
- G.11 Meter Data Providers shall provide to the Market Operator the Meter Data listed in G.4 excluding Meter Data for Transmission Connected Autonomous Generator Units, Interconnector Metered Generation for each Settlement Day in sufficient time to permit the Timetabled M+4 Settlement Reruns and Timetabled M+13 Settlement Reruns to be performed by the Market Operator in accordance with the Settlement Calendar.
- G.12 If a Meter Data Provider has provided data for a Unit as described in paragraph G.7, this fulfils that Meter Data Provider's requirement to send that data again as described in paragraph G.9.
- G.13 If a Meter Data Provider has provided data for a Unit as described in paragraph G.8, this fulfils that Meter Data Provider's requirement to send that data again as described in paragraph G.10.
- G.14 If a System Operator in its role as Meter Data Provider has provided data for a Unit as described in paragraph G.10, this fulfils that System Operator's requirement to send that data again as described in paragraph G.11, unless there are known corrections required to the data arising from the resolution of Data Queries, Settlement Queries, Settlement Disputes or discovered errors.
- G.15 In the event of a Settlement Query or Data Query in respect of Meter Data and where the Meter Data is discovered to be in material error, the Meter Data Provider shall resend the updated Meter Data for the Units, Interconnector, or Net Inter-Jurisdictional Import as appropriate for the Settlement Day or Settlement Days to which the Settlement Query or Data Query relates as described in Agreed Procedure 16 "Meter Data Provision".
- G.16 In the event of a Dispute in respect of Meter Data and where the Meter Data is discovered to be in material error, the Meter Data Provider shall resend the updated Meter Data for the Units, Interconnector, or Net Inter-

Jurisdictional Import as appropriate in a manner and form determined by the Dispute Resolution Board.

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## **APPENDIX H: INTENTIONALLY BLANK**

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## **APPENDIX J: OTHER COMMUNICATIONS**

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### **Introduction**

- J.1 This Appendix J outlines the detailed Data Record requirements for miscellaneous Data Transactions under the Code not related to Notices of Dispute, Emergency Notifications, Suspension or Termination, or operation of the Modifications Committee.
- J.2 Agreed Procedure 13 "Disputes" sets out the detail of Notices related to the Dispute process.
- J.3 Agreed Procedure 7 "Emergency Communications" and Agreed Procedure 11 "Market System Operation, Testing, Upgrading, and Support" set out the detail of Notices related to Limited Communication Failures, General Communication Failures, General System Failures, and MSP Failures.
- J.4 Agreed Procedure 12 "Modifications Committee Operation" will set out the detail of all Notices related to the process of raising Modification Proposals, impact assessing Modification Proposals, seeking consultation on Modification Proposals, publishing the Modifications Committee's Final Modification Recommendation and the decision of the Regulatory Authorities.
- J.5 Section 2 of the Code sets out the treatment of Suspension and Termination Orders.

### **Generator Unit Under Test**

- J.6 Agreed Procedure 4 "Data Transaction Submission and Validation" sets out the detail of all Generator Unit Under Test Notices, following the principles in paragraph J.7 below.
- J.7 Participants shall submit a Generator Unit Under Test Notice to the Market Operator at least five Working Days in advance of the Test Start Date and, when submitting a notice to terminate a test period at least one Working Day in advance of the Test End Date. The Generator Unit Under Test Notice will specify in all cases the Test Start Date and the Test End Date, and the Generator Unit Under Test.
  - 1. The Market Operator shall verify with the relevant System Operator that the Generator Unit proposed for Under Test status has been granted such a status in accordance with the relevant Grid Code
  - 2. The Market Operator will ensure that Generator Unit Under Test Notices can be submitted by Participants through Type 2 or 3 Communications Channels.

### **Maintenance Schedules**

- J.8 Each System Operator shall submit a Maintenance Schedule Data Transaction to the Market Operator at least two Working Days before the start of each Month, and whenever it is updated.
  - 1. The Maintenance Schedule Data Transaction shall contain the Maintenance Schedule of each Generator Unit in the relevant Currency Zone over the next two Months, and the Maintenance Schedule of each line on the Transmission System in the relevant Jurisdiction over the next two Months.

2. The Market Operator shall only provide for Type 1 Communication Channel for the communication of Maintenance Schedule Data Transactions from the System Operator during normal operation of the Market Operator's Isolated Market Systems and the Type 1 Communication Channel.

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## APPENDIX K: DATA PUBLICATION

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- K.1 A list of data items and their timing of publication is contained in the following Table 47. Procedures for the updating of Publications and the method of Publication are contained in Agreed Procedure 6 “Data Publication”.
- K.2 All data received by the Market Operator over a Type 2 or Type 3 Communication Channel, or calculated by the Market Operator should be publishable by 17:00 on the following Working Day of its receipt or calculation.
- K.3 Agreed Procedure 6 will detail how the Market Operator will comply with Market Participant requests for reports with any data detailed in K.2 above to be made available for communication over Type 2 or Type 3 Communication Channels. Subject to data confidentiality, and the timelines set out in this Appendix, all such reports will be published on the Market Operator Website.
- K.4 Agreed Procedure 6 will follow the following principles set out in the following paragraphs of the Code: 1.19.15, 1.19.17, 2.198, 2.311A, 2.312, 2.333, 3.16A, 3.55A, 3.82, 3.83, 3.84, 3.86, 3.90, 3.91.

**Table 47 – Data publication list part 1: Updated periodically as required**

Time	Item / Data Record	Term	Subscript
<b>Periodically as required</b>			
Within two Working Days of Modification	The Code and Agreed Procedures		
As soon as practical but no later than two Working Days after receipt of Proposal Notice	Modification Proposal Notice		
As soon as practical but no later than two Working Days after the Proposal Notice	Consultation on Proposal Notice		
As soon as practical but no later than two Working Days after receipt of responses to consultation	Responses to Consultation on Proposal Notice		
As soon as practical but no later than two Working Days on receipt of further information	Further Information on Proposal Notice		
As soon as practical but no later than two Working Days of receipt of Final Modification Recommendation	Final Modification Recommendation		
As soon as practical but no later than two Working Days of receipt of Regulatory Authority decision on Final Modification Recommendation	Regulatory Authority decision on Final Modification Recommendation		
As updated and at least within two Working Days of an application, successful application, or non-successful application	List of Parties, Participants, Registered Generator Units and Supplier Units		
As issued and at least within two Working Days of Issue	Suspension Order or lifting of a Suspension Order		

<b>Time</b>	<b>Item / Data Record</b>	<b>Term</b>	<b>Subscriber</b>
As issued and at least within two Working Days of Issue	Termination Order		
As received and at least within two Working Days of Issue	Generator Unit Under Test Notice		
As updated	Proposed Market Operator Isolated Market System Testing Schedule		
As updated and at least within two Working Days of update	Details of the Accession and Participation Fees		
As updated and at least two Weeks in advance of the Meeting	Date of the next Modification Committee Meeting		
Within one Working Day of receipt from the Regulatory Authorities	Supplier Suspension Delay Period		
As updated and at least within two Working Days of update	Members and Chairperson of the Modification Committee		
On receipt of the Regulatory Authorities' determination and no later than five Working Days of its receipt	Uplift Alpha, Uplift Beta, Uplift Delta	$\alpha, \beta, \delta$	
As soon a possible after calculation	Calculations and methodology used by the Market Operator during Administered Settlement		



**Table 47 – Data publication list part 2: Updated Annually and as required**

<b>Time</b>	<b>Item / Data Record</b>	<b>Term</b>	<b>Subscript</b>
<b>Annual</b>			
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Annual Capacity Exchange Rate	ACER	y
At least four Months before start of Year	Annual Load Forecast (by Jurisdiction)	FD	e h
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Annual Capacity Payment Sum	ACPS	y
At least four Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Market Price Cap	PCAP	y
At least four Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Market Price Floor	PFLOOR	y
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Value of Lost Load	VOLL	Y
At least one Month before start of Year	Fixed Market Operator Charge (Supplier Unit)	MOAVC	vy
At least one Month before start of Year	Fixed Market Operator Charge (Generator Unit)	MOAUC	uy
At least one Month before start of Year	Variable Market Operator Charge	VMOC	y
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Capacity Period Payment Sum	CPPS	c
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Fixed Capacity Payment Proportion	FCPP	y
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Ex-Post Capacity Payment Proportion	ECPP	y
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Parameters for determination of Tolerance bands for over generation and under generation	ENGTOL MWTOL UREG	t
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Discount for Over Generation and Premium for Under Generation	DOG PUG	uh
At least one Week before start of Year	Fixed Capacity Payments Weighting Factor for each Trading Period in the	FCPWF	h

<b>Time</b>	<b>Item / Data Record</b>	<b>Term</b>	<b>Subscript</b>
	relevant Year		
Four Weeks before start of Audit, or within one Working Day of its receipt from the Regulatory Authorities, whichever later	Terms of Reference for Market Operator Audit		
Within five Working Days after delivery of Audit Report in its final form to the Regulatory Authorities, or within one Working Day of its receipt from the Regulatory Authorities, whichever later	Market Audit Report		
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Transmission Loss Adjustment Factors	TLAF	uh
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Imperfections Price	IMP	y
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Imperfections Charge Factor	IMPF	h
Four Months before start of Year	Testing Tariff		uh
Four Months before start of Year	Settlement Calendar		
Four Months before start of Year, and as updated	Schedule of Testing Tariffs	TTARIFF	uh
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Fixed Credit Requirement	FCRS FCRG	y y
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Historical Assessment Period for the Billing Period		
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Historical Assessment Period for the Capacity Period		
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Analysis Percentile Parameter	AnPP	
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Credit Cover Adjustment Trigger		
At least two Months before start of Year, or within five Working Days of its receipt from the Regulatory Authorities, whichever later	Maximum level of the Warning Limit		

**Table 47 – Data publication list part 3: Updated Monthly**

Time	Item	Term	Subscribe
<b>Monthly</b>			
Within five Working Days of its creation	Market Operator Report (paragraph 2.102)		
10:00 one working Day before start of Month	Maintenance Schedule Transaction - Generator Outage Schedule	--	--
10:00 one working Day before start of Month	Maintenance Schedule Transaction - Transmission Outage Schedule		
At 10:00, at least one Working Day before start of Month	Monthly Load Forecast	--	--
At 10:00, at least five Working Days before start of Month	Margin	M	h
At 10:00, at least five Working Days before start of Month	Loss of Load Probability for each Trading Period in the relevant Month	$\lambda$	h
At 10:00, at least five Working Days before start of Month	Variable Capacity Payments Weighting Factor for each Trading Period in the relevant Month	VCPW F	h
At least once every four Months	Reports on progress and status of Modification Proposals		

**Table 47 – Data publication list part 4: Updated Daily in Advance of Gate Closure**

Time	Item / Data Record	Term	Subscribe
<b>Daily, in advance of Gate Closure</b>			
Before 09:30	Four Day Load Forecast	--	--
Before 09:30	Any important updates to Maintenance Schedule(Generator and Transmission) Data Transaction (Appendix J)	--	--
As Available, every six hours	Two Day Rolling Wind Power Unit Forecast aggregated by Jurisdiction	--	--
Before 09:30	Forecast of Ex-Post Loss of Load Probability for each Trading Period in the forthcoming 31 Trading Days	$\Phi$	h

**Table 47 – Data publication list part 5: Updated Daily post Gate Closure**

Time	Item / Data Record	Term	Subscribe
<b>Daily, post gate closure and before Trading Day</b>			
13:00	Ex-Ante Indicative System Marginal Prices	--	

**Table 47 – Data publication list part 6: Updated Daily post Trading Day**

Time	Item	Term	Subscribe
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<b>Time</b>	<b>Item</b>	<b>Term</b>	<b>Subscript</b>
<b>Daily, post Trading Day</b>			
Day after Trading Day at 14:00	Technical Offer Data (Appendix C)		
Day after Trading Day at 14:00	Commercial Offer Data (Appendix C)		
Day after Trading Day at 15:00	Interconnector Available Transfer Capacities	ATC	lh
Day after Trading Day at 15:00	Interconnector Unit Export Capacity Holding	CHE	uh
Day after Trading Day at 15:00	Interconnector Unit Import Capacity Holding	CHI	uh
Day after Trading Day at 15:00	Interconnector Unit Active Export Capacity Holding	CHEA	uh
Day after Trading Day at 15:00	Interconnector Unit Active Import Capacity Holding	CHIA	uh
Day after Trading Day at 15:00	Modified Interconnector Unit Nominations		
Day after Trading Day at 15:00	Ex-Ante Indicative Market Schedule		
Day after Trading Day at 16:00	Ex-Ante Indicative Operations Schedule		
Day after Trading Day at 16:00	Generator Unit Technical Characteristics Data Transaction (See Appendix E)		
Day after Trading Day at 16:00	Energy Limited Generator Unit Technical Characteristics Data Transaction (See Appendix E)		
Day after Trading Day at 16:00	Dispatch Instruction Transaction (See Appendix E)		
Day after Trading Day at 15:00, and as updated	All Price Effecting Metered Data, excluding Trading Site Supplier Units for Trading Sites with Non-firm Access for all available Trading Periods	MG	uh
One Working Day after Trading Day at 15:00, and as updated	Net Inter Jurisdictional Import for all available Trading Periods	NIJI	eh
Two Working Days after Trading Day at 17:00, and as updated	Tolerance for Over Generation and Tolerance for Under Generation	TOLOGLF TOLUGLF	uh
Two Working Days after Trading Day at 17:00, and as updated	Dispatch Offer Price	DOP	uh
Day after Trading Day at 17:00	Ex-Post Indicative Market Schedule Quantity	MSQ	uh
Four Days after Trading Day at 17:00	Ex-Post Initial Market Schedule Quantity	MSQ	uh
Two Working Days after Capacity Period at 16:00	Ex-Post Indicative values of Eligible Availability	EA	uh
Five Working Days after Capacity Period at 16:00	Ex-Post Initial values of Eligible Availability	EA	uh
Day after Trading Day at 16:00	Ex-Post Indicative SMPs	SMP	h
Four Days after Trading Day at 17:00	Initial SMPs	SMP	h
One Working Day after Trading Day at 17:00,	Nominal System Frequency	NORFRQ	h
One Working Day after Trading Day at 17:00,	Average System Frequency	AVGFRQ	h
Two Working Days after Trading Day,	Indicative Energy Payments to	CONP	uh

<b>Time</b>	<b>Item</b>	<b>Term</b>	<b>Subscript</b>
at 09:00	Generator Units	ENP	
Five Working Days after end of Billing Period, at 14:00, and as updated at 17:00 the day of recalculation	Ex-Post Initial Energy Payments to Generator Units	CONP ENP	uh
Day after Trading Day at 17:00	Credit Assessment Price	CAP	g

**Table 47 – Data publication list part 7: Updated on a Capacity Period basis, post end of Capacity Period**

<b>Time</b>	<b>Item</b>	<b>Term</b>	<b>Subscript</b>
<b>Each Capacity Period, post end of Capacity Period</b>			
Two Working Days after end of Capacity Period, at 16:00	Ex-Post Indicative Capacity Payments to each Generator Unit	CP	uh
Five Working Days after end of Capacity Period, at 16:00	Initial Capacity Payments to each Generator Unit	CP	uh
Two Working Days after end of Capacity Period, at 16:00	Indicative Ex-Post Capacity Payments Weighting Factor	ECPWF	h
Five Working Days after end of Capacity Period, at 16:00	Initial Ex-Post Capacity Payments Weighting Factor	ECPWF	h
Five Working Days after end of Capacity Period, at 16:00	Initial Variable Capacity Payments Weighting Factor	VCPWF	h
Five Working Days after end of Capacity Period, at 16:00	Initial Ex-Post Margin	EM	h
Five Working Days after end of Capacity Period, at 16:00	Initial Ex-Post Loss of Load Probability	Φ	h

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## APPENDIX L: LIST OF AGREED PROCEDURES

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- L.1 This Appendix L of the Code describes all Agreed Procedures associated with the Code and sets out the scope of each Agreed Procedure.
- L.2 Agreed Procedure 1 "Participant and Unit Registration and Deregistration" sets out the detailed obligations of the Market Operator, Parties and (where applicable) Applicants in relation to:
1. the operation of the process set out in Appendix B;
  2. the operation of the registration process set out in paragraphs 2.10-2.14, 2.19, 2.20, 2.22, 2.23, 2.23A, 2.24, 2.25, 2.26, 2.27, 2.28, 2.29, 2.30, 2.30A, 2.30B, 2.32, 2.32A, 2.41, 2.42, 2.49, 2.51, 2.52A, 2.53, 2.56, 2.57, 2.59, 2.65, 2.68, 2.69, 2.70, 2.74, 2.75, 2.75A, 2.76, 2.77, 2.77A, 2.77B, 2.77C, 3.2, 3.11, 3.77E and 3.81A;
  3. the operation of the data validation process set out in paragraphs 2.22, 2.27, 2.30, 2.31, 2.37, 2.38, 2.39, 2.40A, 2.44, 2.45, 2.45A, 2.46, 2.47, 2.48A, 2.48A1, 2.48B, 2.48C, 2.48D, 2.48F, 2.50, 2.52, 2.58, 2.61, 2.66, 2.70.1, 2.70.2, 2.72, 2.75, 2.77B.1 and 2.77B.2; and
  4. the Transaction (timelines and format) under which the Market Operator informs a Participant of the Required Credit Cover for a Unit prior to the registration of that Unit.
- L.3 Agreed Procedure 2 "Interconnector Unit Capacity Right Calculations and Dispatch Notification" sets out the detailed obligations of the Market Operator and the relevant Parties in relation to those of the Transactions listed in Appendix E that relate to the operation of the Interconnector, in order that the procedures for the treatment of Interconnector Units as set out in general terms in Section 5 can be carried out.
- L.4 Agreed Procedure 3 "Communication Channel Qualification" sets out the detailed obligations of the Parties in relation to the obtaining and maintenance of a functioning Type 2 Channel or Type 3 Channel, and the security required for these Communication Channels, and also sets out the manner in which Participants and (in the case of suspension of Communication Channel Qualification) the Market Operator shall perform the following functions in order that Participants may "issue", "submit", "send" or "receive" Data Transactions and to maintain a secure IT system:
1. Registering Type 2 Channel and Type 3 Channel communications;
  2. Testing Participant qualification in respect of Type 2 Channel and Type 3 Channel communications;
  3. Accessing the Market Operator's Isolated Market System;
  4. Maintaining Communication Channel Qualification status in respect of both Type 2 Channel and Type 3 Channel; and
  5. Suspension of Communication Channel Qualification status in respect of Type 2 Channel and Type 3 Channel.
- L.5 Agreed Procedure 4 "Data Transaction Submission and Validation" sets out the detailed obligations of the Parties in relation to the submission of:
1. Offer Data (other than the elements listed in paragraphs C24 and C25 of Appendix C);
  2. Settlement Reallocation Requests; and

3. Generator Unit Under Test Notices,
  - including the data groupings and technical IT interface requirements with which each such Data Transaction must comply in order that the Market Operator is obliged to accept it, and shall be subject to the requirements set out in paragraph C.23 of Appendix C and paragraph J.7 of Appendix J.
- L.6 Agreed Procedure 5 "Data Storage and IT Security" sets out the detailed obligations of the Market Operator and Parties in relation to:
  1. the technical security, data storage and data access specifications and standards with which the Isolated Market System of the Market Operator and of each Participant must comply;
  2. the technical security specifications and standards that must be maintained in order to gain access to the Market Operator's Isolated Market System;
  3. the security standards for data communications that must be complied with in respect of Type 2 Channel and Type 3 Channel communications;
  4. computational machine precision and methods of rounding; and
  5. the matters set out in paragraphs 3.14, 3.16, 3.16A, 3.92 and 3.93.
- L.7 Agreed Procedure 6 "Data Publication" sets out the detailed obligations of the Market Operator and Parties in relation to:
  1. the method of publication of data, and the updating of published data;
  2. the data listed in Appendix K that must be provided by the Market Operator in response to a request made by a Participant, and the method of such response;
  3. the matters set out in paragraphs 1.19.15, 1.19.17, 2.198, 2.311A, 2.312, 2.333, 3.16A, 3.55A, 3.82, 3.83, 3.84, 3.86, 3.90, 3.91.
- L.8 Agreed Procedure 7 "Emergency Communications" sets out the detailed obligations of the Market Operator and Parties that arise in the event of and for the duration of a General Communication Failure, a General System failure or a Limited Communication Failure in relation to:
  1. the processes for communication of data required for market settlement;
  2. the process to be followed by the Market Operator in notifying the market that a General Communication Failure or a General System Failure is in effect;
  3. general responsibilities of Parties;
  4. updates to be issued by the Market Operator;
  5. estimation to be carried out by the Market Operator as to how long the emergency situation will remain in effect; and
  6. the matters set out in paragraphs 3.37, 3.41A, 3.49, 3.56, 3.58, 3.58A, 3.59, 3.60, 3.63, 3.64, 3.70, 3.74, 3.75.
- L.9 Agreed Procedure 9 "Management of Credit Cover and Credit Default" sets out the detailed obligations of the Market Operator and Participants in relation to:
  1. the processes for managing the Credit Cover that is or is required to be maintained by Participants;

2. the process that is to be invoked in the event of a Default by a Participant in relation to Credit Cover; and
  3. the matters set out in paragraphs 6.164A, 6.169G, 6.170I, 6.170N, 6.170U, and 6.170Z.
- L.10 Agreed Procedure 10 “Settlement Reallocation” sets out the detailed obligations of the Market Operator and Participants in relation to the submission, content, Currency and treatment of Settlement Reallocation Requests, the status and cancellation of any resulting Settlement Reallocation Agreement, and the matters set out in paragraphs 6.176, 6.179, 6.179A, 6.182, 6.189, 6.190 and 6.191.
- L.11 Agreed Procedure 11 “Market System Operation, Testing, Upgrading and Support” sets out the detailed obligations of the Market Operator in relation to the:
1. provision of advice to Parties in relation to the operation of the Market Operator’s Isolated Market System and Communication Channels;
  2. provision to Parties of a facility for the reporting of incidents;
  3. implementation and coordination of the Market Operator’s Isolated Market Systems and its interfaces to Communication Channels;
  4. scheduled testing and down-time of the Market Operator’s Isolated Market Systems or its interfaces to Communication Channels;
  5. commissioning of an externally-audited report in the event of a General Communication Failure, General System Failure or MSP Failure;
  6. restoration of the Market Operator’s Isolated Market Systems in the event of a General System Failure; and
  7. the matters set out in paragraphs 3.12, 3.17, 3.19, 3.72 and 3.73.
- L.12 Agreed Procedure 12 "Modifications Committee Operation" sets out the detailed obligations of the Market Operator and Parties in relation to the rules and proceedings of the Modifications Committee, and the matters set out in paragraphs 2.108 to 2.113 inclusive, and 2.149 to 2.206 inclusive.
- L.13 Agreed Procedure 13 "Query Generation" sets out the detailed obligations of the Market Operator and Parties in relation to the raising, consideration and resolution of, and response to, Data Queries and Settlement Queries, and the matters set out in paragraphs 6.42, 6.45, 6.46, 6.48, 6.49, 6.50, 6.51, 6.52, 6.53, 6.53A, 6.54, 6.56, 6.57, 6.58, 6.59, 6.59A, 6.60, 6.61, 6.62, 6.74, 6.75.
- L.14 Agreed Procedure 14 "Disputes" sets out the detailed obligations of the Market Operator and Parties in relation to the procedures governing Disputes, and the matters set out in paragraphs 2.239 to 2.282 inclusive.
- L.15 Agreed Procedure 15 “Invoicing” sets out the detailed obligations of the Market Operator in relation to the issuing of Settlement Statements, Invoices, Self-Billing Invoices and Debit Notes in accordance with Appendix F, and the matters set out in paragraphs 2.247, 3.2, 6.1, 6.3, 6.6, 6.7, 6.29A, 6.29A.2.a, 6.29A.2.b, 6.29A.2.c, 6.29A.2.d, 6.29A.2.e, 6.29A.2.f, 6.29A.2.g, 6.29A.2.h, 6.30, 6.32, 6.33, 6.33.1, 6.33.2, 6.33.3, 6.33.4, 6.33B, 6.33C, 6.33D, 6.33E.2, 6.33E.3, 6.33F.2, 6.33G, 6.33M, 6.33N, 6.33O, 6.34, 6.35, 6.36, 6.37, 6.41, 6.93, 6.97, 6.102B, 6.102E, and 6.131.
- L.16 Agreed Procedure 16 “Metered Data Provision” sets out the detailed obligations of the Meter Data Providers in relation to the grouping of Meter Data for provision to the Market Operator, and the timing of such provision.





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**APPENDIX M: DESCRIPTION OF THE FUNCTION FOR  
THE DETERMINATION OF CAPACITY PAYMENTS**

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## **APPENDIX N: OPERATION OF THE MSP SOFTWARE**

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### **CALCULATION OF UPLIFT**

- N.24A The calculation of Uplift in this Appendix in paragraphs N.25 to N.38 is based only on data associated with relevant Generator Units, which is defined to include exclusively Price Maker Generator Units excluding Pumped Storage Units, excluding Interconnector Units and excluding Generator Units Under Test. Throughout the paragraphs N.25 to N.38, wherever there is a summation over Generator Units  $u^*$  it applies only to this subset of Generator Units.
- N.25 Within this Appendix N and not elsewhere, the following terms apply:
1. subscript  $k$  denotes a Contiguous Operation Period;
  2.  $TPCOUNT_t$  is the number of Trading Periods that are within the first Trading Day  $t$  of the Optimisation Time Horizon;

3. UKSTART<sub>uk</sub> is the sequential number of the Trading Period (where 1 is the first Trading Period in the Optimisation Time Horizon) in which the Contiguous Operation Period k for Generator Unit u commences, provided that the Contiguous Operation Period starts within the first Trading Day of the Optimisation Time Horizon, such that  $1 \leq \text{UKSTART}_{uk} \leq \text{TPCOUNT}_t$ ; if the Contiguous Operation Period does not commence within the first Trading Day t of the Optimisation Time Horizon under consideration then UKSTART<sub>uk</sub> is neither defined nor required;
4. UKSTOP<sub>uk</sub> is the sequential number of the Trading Period (where 1 is the first Trading Period in the Optimisation Time Horizon) in which the Contiguous Operation Period k for Generator Unit u ends, or the sequential number of the last Trading Period within the Optimisation Time Horizon if the Contiguous Operation Period starts in the first Trading Day in the Optimisation Time Horizon and continues to the end of the Optimisation Time Horizon, such that  $\text{UKSTOP}_{uk} \geq \text{UKSTART}_{uk}$ ; if the Contiguous Operation Period does not commence within the first Trading Day t of the Optimisation Time Horizon under consideration then UKSTOP<sub>uk</sub> is neither defined nor required;
5. STC<sub>uk</sub>t is the Start Cost for Contiguous Operation Period k for Generator Unit u which is attributed to that part of Contiguous Operation Period k that falls within the first Trading Day t of the relevant Optimisation Time Horizon;
6. CFCR<sub>uk</sub>t is the Carried Forward Cost Recovery for Generator Unit u in Contiguous Operation Period k from the first Trading Day t of the Optimisation Time Horizon to the next Trading Day;
7. CR<sub>uk</sub>t is the Cost of Running for each relevant Generator Unit u in that part of Contiguous Operation Period k which falls in the first Trading Day t of the relevant Optimisation Time Horizon;
8. OINUPL<sub>h</sub> is the Optimised Initial Uplift value for Trading Period h as calculated in Step 1 of paragraph N.37 below;
9. REVMINT<sub>t</sub> is the minimum value of energy payments to relevant Generator Units in Trading Day t that satisfies the relevant constraints, as calculated in Step 2 of paragraph N.37 below;
10. MSC<sub>uk</sub> is the Market Start Up Cost for Generator Unit u applicable to Contiguous Operation Period k, and is equal to the Market Start Up Cost (MSUC<sub>uh</sub>) for Generator Unit u in the first Trading Period h of Contiguous Operation Period k

#### **Procedure to calculate Cost Recovery values**

- N.26 The procedure to calculate the Cost of Running to be used as the basis for cost recovery is set out below. Each of these calculations is made independently for each Optimisation Time Horizon.
- N.27 Paragraphs N.29 to N.35 apply exclusively to Price Maker Generator Units excluding Pumped Storage Units, excluding Interconnector Units and excluding Generator Units Under Test.
- N.28 For each Generator Unit u which is a Pumped Storage Unit or an Interconnector Unit or a Generator Unit Under Test or which are not Price Maker Generator Units, values of the Cost of Running (CR<sub>uk</sub>t), Carried

Forward Cost Recovery (CFCR<sub>ukt</sub>) and Start Cost (STC<sub>ukt</sub>) for these other Generator Units are neither calculated nor required.

**Calculating start costs to be carried forward**

*Unit starts and stops within the first Trading Day or started in the previous Trading Day*

- N.29 For an Optimisation Time Horizon, all values of Carried Forward Cost Recovery (CFCR<sub>ukt</sub>) for Generator Units u in Contiguous Operation Period k other than those which start within the first Trading Day and then continue to the second Trading Day of the relevant Optimisation Time Horizon are equal to zero.

*Unit starts in the first Trading Day and continues into the Second Trading Day*

- N.30 For an Optimisation Time Horizon, when a Contiguous Operation Period for a Price Maker Generator Unit u that is not a Pumped Storage Unit or an Interconnector Unit or a Generator Unit Under Test starts within the first Trading Day and continues beyond the end of that Trading Day, a portion of the Start Up Costs will be allocated to the Trading Day in which the Contiguous Operation Period began and the remainder will be allocated to the next Trading Day, as follows. For each such Generator Unit u, for each Contiguous Operation Period k that starts within the first Trading Day of the relevant Optimisation Time Horizon and continues to the second Trading Day within that Optimisation Time Horizon, values of Carried Forward Cost Recovery (CFCR<sub>ukt</sub>) from the first Trading Day t to the following Trading Day shall be as follows:

$$CFCR_{ukt} = MSC_{uk} \times \left( \frac{UKSTOP_{uk} - TPCOUNT_t}{UKSTOP_{uk} - UKSTART_{uk} + 1} \right)$$

Where

11. MSC<sub>uk</sub> is the Market Start Cost for Generator Unit u in Contiguous Operation Period k as defined in paragraph N.25 above
12. TPCOUNT<sub>t</sub>, UKSTART<sub>uk</sub> and UKSTOP<sub>uk</sub> are as defined in paragraph N.25 above

**Calculating start costs to be recovered within each Trading Day**

*Unit starts and stops in the first Trading Day*

- N.31 For each Price Maker Generator Unit u that is not a Pumped Storage Unit or an Interconnector Unit or a Generator Unit Under Test, for each Contiguous Operation Period k that both starts and ends within the first Trading Day t of the relevant Optimisation Time Horizon, values of Start Cost (STC<sub>ukt</sub>) are calculated as follows:

$$STC_{ukt} = MSC_{uk}$$

Where

1. MSC<sub>uk</sub> is the Market Start Cost for Generator Unit u in Contiguous Operation Period k

*Unit starts in the first Trading Day and continues to the second Trading Day*

- N.32 For each Price Maker Generator Unit u that is not a Pumped Storage Unit or an Interconnector Unit or a Generator Unit Under Test, for each Contiguous Operation Period k that starts within the first Trading Day t of the relevant Optimisation Time Horizon and continues to the second Trading Day of that Optimisation Time Horizon, values of Start Cost (STC<sub>ukt</sub>) to be recovered within that part of Contiguous Operation Period k in Trading Day t are calculated as follows:

$$STC_{ukt} = MSC_{uk} - CFCR_{ukt}$$

Where

1. MSC<sub>uk</sub> is the Market Start Cost for Generator Unit u in Contiguous Operation Period k, as set out in paragraph N.24
2. CFCR<sub>ukt</sub> is the Carried Forward Cost Recovery for Generator Unit u from the first Trading Day t of Contiguous Operation Period k

*Unit started in the previous Trading Day*

- N.33 For each Price Maker Generator Unit u that is not a Pumped Storage Unit or an Interconnector Unit or a Generator Unit Under Test, for each Contiguous Operation Period k that starts in Trading Day (t-1) immediately before the first Trading Day t of the present Optimisation Time Horizon and continues to the first Trading Day t in that Optimisation Time Horizon, values of Start Cost (STC<sub>ukt</sub>) to be recovered within that part of Contiguous Operation Period k which falls within Trading Day t are calculated as follows:

$$STC_{ukt} = CFCR_{uk}(t-1)$$

Where

1. CFCR<sub>uk</sub>(t-1) is as defined in paragraph N.30, the Carried Forward Cost Recovery for Generator Unit u from the preceding Trading Day (t-1) to the first Trading Day t of the present Optimisation Time Horizon.

*Unit started before the previous Trading Day*

- N.34 For an Optimisation Time Horizon, all values of Start Cost (STC<sub>ukt</sub>) for Generator Units u in Contiguous Operation Periods k that start earlier than one Trading Day before the start of the relevant Optimisation Time Horizon are equal to zero.

### **Cost of running**

- N.35 The Cost of Running (CR<sub>ukt</sub>) for each Price Maker Generator Unit u that is not a Pumped Storage Unit or an Interconnector Unit or a Generator Unit Under Test in that part of Contiguous Operation Period k which falls in the first Trading Day t of the relevant Optimisation Time Horizon is calculated as follows:

$$CR_{ukt} = \left[ \sum_{h \in k \cap h_{int}} ((MSQ_{uh} \times MOP_{uh}) + MNL_{Cuh} + MSQCC_{uh}) \times TPD \right] + STC_{ukt}$$

Where

1. MOP<sub>uh</sub> is the Market Offer Price of Generator Unit u in Trading Period h
2. MSQ<sub>uh</sub> is the Market Schedule Quantity for Generator Unit u in Trading Period h
3. MNL<sub>Cuh</sub> is the Market No Load Cost for Generator Unit u in Trading Period h
4. MSQCC<sub>uh</sub> is the Market Schedule Quantity Cost Correction for Generator Unit u in Trading Period h
5. TPD is the Trading Period Duration
6. STC<sub>ukt</sub> is the Start Cost to be recovered within that part of Contiguous Operation Period k which falls within Trading Day t
7.  $\sum_{h \in k \cap h_{int}}$  is a summation over all Trading Periods h which are both within Contiguous Operation Period k and within the first Trading Day t in the relevant Optimisation Time Horizon

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**Procedure to calculate Minimum Revenue value**

N.37 The Minimum Revenue (REVMINT) for the Trading Day is used to define a constraint on the derivation of Uplift values (UPLIFTh), and is calculated as follows. For each Optimisation Time Horizon, the procedure to calculate the Minimum Revenue (REVMINT) for the first Trading Day t in that Optimisation Time Horizon is set out below, where within this procedure, the following meanings apply:

1. REVMINT is the Minimum Revenue in Trading Day t that satisfies the relevant constraints, calculated in accordance with Step 2 of this paragraph
2. OINUPL<sub>h</sub> is the Optimised Initial Uplift value for each Trading Period h, calculated in accordance with Step 1 of this paragraph
3. SP<sub>h</sub> is the Shadow Price for Trading Period h
4. MSQ<sub>uh</sub> is the Market Schedule Quantity for Generator Unit u in Trading Period h
5. TPD is the Trading Period Duration
6. CR<sub>ukt</sub> is the Cost of Running for Generator Unit u in that part of Contiguous Operation Period k which falls in the first Trading Day t of the relevant Optimisation Time Horizon, calculated as set out in paragraph N.35

7.  $\sum_{u^*}$  is a summation over all Price Maker Generator Units u, excluding Pumped Storage Units, excluding Interconnector Units and excluding Generator Units Under Test
8.  $\sum_{hint}$  is a summation over each Trading Period h in Trading Day t
9.  $\sum_{hink \cap hint}$  is a summation over each Trading Period h that is both within Contiguous Operation Period k and within Trading Day t

The procedure is as follows:

#### Step 1

**Select a set of values of Optimised Initial Uplift (OINUPLh) for each Trading Period h in Trading Day t which give the minimum value of**

$$\sum_{u^*} \sum_{hint} ((OINUPLh + SP_h) \times MSQuh \times TPD)$$

**Subject to that set of values of OINUPLh satisfying the following constraints:**

1.  $\sum_{hink \cap hint} ((OINUPLh + SP_h) \times MSQuh \times TPD) - CRukt \geq 0$  for each Price Maker Generator Unit u excluding Pumped Storage Units, excluding Interconnector Units and excluding Generator Units Under Test, for those Trading Periods h in that part of Contiguous Operation Period k that falls, partly or wholly, within the relevant Trading Day t; and
2.  $OINUPLh \geq 0$  for all Trading Periods h in Trading Day t.

#### Step 2

Using the set of Optimised Initial Uplift values (OINUPLh) from Step 1 above, the minimum value of energy payments (REVMINT) to relevant Generator Units u in Trading Day t is calculated as follows:

$$REVMINT = \sum_{u^*} \sum_{hint} ((OINUPLh + SP_h) \times MSQuh \times TPD)$$

#### **Procedure to calculate final Uplift values**

N.38 For each Optimisation Time Horizon, the final part of the procedure to calculate the Uplift values (UPLIFTh) for the first Trading Day t in that Optimisation Time Horizon is set out below, where within this procedure, the following meanings apply:

1. UPLIFTh is the value of Uplift for Trading Period h
2. REVMINT is the Minimum Revenue in Trading Day t, calculated in accordance with Step 2 of paragraph N.37
3. SP<sub>h</sub> is the Shadow Price for Trading Period h
4. MSQu<sub>h</sub> is the Market Schedule Quantity for Generator Unit u in Trading Period h
5. TPD is the Trading Period Duration



6.  $CR_{ukt}$  is the Cost of Running for Generator Unit  $u$  in that part of Contiguous Operation Period  $k$  which falls in the first Trading Day  $t$  of the relevant Optimisation Time Horizon, calculated as set out in paragraph N.35
7.  $\alpha$  is the Uplift Alpha value used in the determination of Uplift to determine the importance of the Uplift Cost Objective referenced in paragraph 4.49A;
8.  $\beta$  is the Uplift Beta value used in the determination of Uplift to determine the importance the Uplift Profile Objective referenced in paragraph 4.49A;
9.  $\delta$  is the Uplift Delta value used in the determination of Uplift to restrict the overall increase in market revenue due to Uplift over the Trading Day  $t$
10.  $\sum_{u^*}$  is a summation over all relevant Price Maker Generator Units  $u$ , excluding Pumped Storage Units, excluding Interconnector Units and excluding Generator Units Under Test
11.  $\sum_{hint}$  is a summation over each Trading Period  $h$  in Trading Day  $t$
12.  $\sum_{hink \cap hint}$  is a summation over each Trading Period  $h$  that is both within Contiguous Operation Period  $k$  and within Trading Period  $t$

The procedure is as follows:

**Select a set of values of Uplift (UPLIFTh) for each Trading Period  $h$  in Trading Day  $t$  which give the minimum value of**

$$\alpha \times \left[ \sum_{hint} \left( (UPLIFTh + SP_h) \times \sum_{u^*} (MSQ_{uh} \times TPD) \right) \right] + \beta \times \left[ \sum_{hint} (UPLIFTh)^2 \right]$$

**Subject to that set of values of UPLIFTh satisfying the following constraints:**

1.  $\sum_{hink \cap hint} [(UPLIFTh + SP_h) \times MSQ_{uh} \times TPD] \geq CR_{ukt}$  for each Price Maker Generator Unit  $u$  excluding Pumped Storage Units, excluding Interconnector Units and excluding Generator Units Under Test, for that part of Contiguous Operation Period  $k$  that falls, partly or wholly, within the relevant Trading Day  $t$  ;
2.  $UPLIFTh \geq 0$  for all Trading Periods  $h$  in Trading Day  $t$ ; and
3.  $\sum_{u^*} \sum_{hint} ((UPLIFTh + SP_h) \times MSQ_{uh} \times TPD) \leq (1 + \delta) \times REVMINT$

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## **APPENDIX O: DISPUTE RESOLUTION AGREEMENT**

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### **FORM OF DISPUTE RESOLUTION AGREEMENT**

#### **GENERAL CONDITIONS OF DISPUTE RESOLUTION AGREEMENT FOR A DISPUTE RESOLUTION BOARD**

**Words in square brackets should be deleted as appropriate depending on whether there is a one member DRB or a three member DRB.**

**BETWEEN:-**

**1. THE DISPUTING PARTIES, REFERRED TO IN ANNEX 1**

**AND**

**2. EACH MEMBER OF THE DISPUTE RESOLUTION BOARD, REFERRED TO IN ANNEX 2 (“MEMBER”, TOGETHER REFERRED TO AS “THE MEMBERS”)**

#### **RECITALS**

- A. The Disputing Parties are adhering parties to the Framework Agreement dated xxx by which they agree to be bound by the terms of the Trading and Settlement Code (“Code”) for trading in electricity in the wholesale market in the Single Electricity Market.
- B. The Disputing Parties are parties to a Dispute within the meaning of the Code.
- C. The Dispute has, in accordance with paragraph 2.254 of the Code, been referred to a [single member / three member] Dispute Resolution Board (“DRB”) for resolution.
- D. In order to facilitate the resolution of the Dispute by the DRB, the Disputing Parties wish to enter into this Agreement with each of the Members, setting out the terms and conditions upon which each Member is engaged to hear and determine the Dispute.

## **1. Definitions and Interpretation**

1.1 Unless the context requires otherwise, words and expressions which are not otherwise defined in this Dispute Resolution Agreement (including the Recitals) shall have the meanings assigned to them in the Code.

1.2 Where the DRB is comprised of a single member, references to “the Members” shall be construed as references to “the Member” and references to “each Member” shall be construed as references to “the Member”.

## **2. General Provisions**

2.1 Each Disputing Party engages each Member to constitute a Dispute Resolution Board to hear and determine the Dispute.

2.2 Each Member accepts that engagement.

2.3 Each Member agrees to hear and determine the Dispute:

1. in accordance with the Code, the Framework Agreement and Applicable Laws; and
2. on the terms and conditions set out in this Agreement.

2.4 This Agreement shall take effect when signed by all parties to this Agreement, on the last date of signature by a party.

2.5 The appointment of the Members pursuant to this Agreement is a personal appointment. At any time, the Members may give not less than 70 days’ notice of resignation to the the Disputing Parties and to the Market Operator, and, where the Market Operator is a Disputing Party, to the Regulatory Authorities, and the Dispute Resolution Agreement shall terminate upon the expiry of this period.

2.6 No assignment or subcontracting of the Dispute Resolution Agreement is permitted without the prior written agreement of all the Disputing Parties to it and of the Members.

2.7 When appointing each Member, the Disputing Parties shall request of the relevant Member and shall be entitled to rely upon the Member’s representations that he/she:

1. is experienced in and familiar with alternative dispute resolution procedures; or
2. has appropriate experience of the electricity industry, or the particular matters the subject of the dispute; and
3. is familiar with, or shall, prior to the commencement of the hearing of the Dispute, be familiar with, the provisions of the Code.

## **3. Warranties**

3.1 The Members warrant and agree that they are and shall be impartial and independent of the Market Operator and the Disputing Parties. Each Member shall promptly disclose, to each Disputing Party and to the Other Members, any fact or circumstance which might appear inconsistent with his/her warranty and agreement of impartiality and independence.

## **4. Objectives of the Dispute Resolution Procedure**

- 4.1 It is intended that procedures effected under this Dispute Resolution Agreement should to the extent possible:
1. be simple, quick and inexpensive;
  2. preserve or enhance the relationship between the Disputing Parties;
  3. without prejudice to the obligations of each of the Disputing Parties pursuant to the Code and in particular 2.271 thereof, preserve and allow for the continuing and proper operation of the Code and Single Electricity Market;
  4. resolve disputes on an equitable basis in accordance with the provisions of the Code; and
  5. encourage resolution of disputes without formal legal representation or reliance on legal procedures.

## **5. General Obligations of the Members**

5.1 Each Member shall:

1. have no interest financial or otherwise in the Disputing Parties, nor any financial interest in the Code except for payment under the Dispute Resolution Agreement;
2. not previously have been employed as a consultant or otherwise by any of the Disputing Parties, except in such circumstances as were disclosed in writing to all of the Disputing Parties before they signed the Dispute Resolution Agreement;
3. have disclosed in writing to the Disputing Parties and the other Members, before entering into the Dispute Resolution Agreement and to his/her best knowledge and recollection, any professional or personal relationships with any director, officer or employee of the Disputing Parties, and any previous involvement in the SEM;
4. not, for the duration of the Dispute Resolution Agreement, be employed as a consultant or otherwise by any of the Disputing Parties, except as may be agreed in advance in writing by the Disputing Parties and the other Members;
5. comply with the paragraphs 2.257 to 2.278 inclusive of the Code;
6. not while a Member enter into discussions or make any agreement with any of the Disputing Parties regarding employment by any of them, whether as a consultant or otherwise, after ceasing to act under the Dispute Resolution Agreement;
7. ensure his/her availability for all site visits and hearings as are necessary;
8. be knowledgeable of the Code and all elements of the Dispute by studying all documents received prior to commencement of the hearing of the Dispute; and
9. treat the details of the DRB's activities and hearings as private and confidential, and not publish or disclose them without the prior written consent of the Disputing Parties and the Other Members.

## **6. General Obligations of the Disputing Parties**

- 6.1 The Disputing Parties and the Disputing Parties' employees, officers, servants or agents shall not request advice from or consultation with the Members regarding the Code, otherwise than in accordance with the procedures determined by the DRB under the Code and the Dispute Resolution Agreement, and except to the extent that prior agreement is given by all other Disputing Parties and the other Members. The Disputing Parties shall be responsible for compliance with this provision by the Disputing Parties' employees, officers, servants or agents.
- 6.2 The Disputing Parties undertake to each other and to the Members that the Members shall not, except as otherwise agreed in writing by the Disputing Parties and the Members, be liable for any claims for anything done or omitted in the discharge or purported discharge of the Members' functions, unless the act or omission is shown to be in bad faith.
- 6.3 The Disputing Parties hereby jointly and severally indemnify and hold each Member harmless against and from claims from which he/she is relieved from liability under the preceding paragraph 6.2.

## **7. Breach of this Agreement**

- 7.1 The parties acknowledge that the failure by a Disputing Party to comply with a requirement or determination of the Dispute Resolution Board:
1. does not constitute a breach of this Agreement; but
  2. is a breach of the Code that may be referred to the Market Operator as an alleged breach of the Code, to be dealt with in accordance with the terms of the Code.

## **8. Payment**

- 8.1 The Members' basis for charging shall be [insert basis for charging].
- 8.2 The Disputing Parties hereby agree to share equally the costs of the Members amongst them.

## **9. Termination**

- 9.1 At any time: (i) the Disputing Parties may jointly terminate the Dispute Resolution Agreement by giving 21 days' notice to the Members; or (ii) the Members may resign as provided for in Clause 2.
- 9.2 If any of the Members fails to comply with the Dispute Resolution Agreement, the Disputing Parties may, without prejudice to their other rights, jointly terminate it by notice to the Members. The notice shall take effect when received by the Members.
- 9.3 Any such notice, resignation and termination shall be final and binding on the Disputing Parties and the Members. However, a notice for the purposes of paragraph 9.1(i) or 9.2 by a Disputing Party, but not by all, shall be of no effect.
- 9.4 Termination of this Agreement shall be without prejudice to the rights and obligations of the parties having accrued prior to the date of termination.

## **10. Default of the Members**

10.1 If a Member fails to comply with any obligation under Clause 5, he/she shall not be entitled to any fees or expenses hereunder and shall, without prejudice to their other rights, reimburse each of the Disputing Parties for any fees and expenses received by the Member and the Other Members, for proceedings or decisions (if any) of the DRB which are rendered void or ineffective.

**11. Severability**

11.1 If any part of this Agreement becomes invalid, illegal or unenforceable the parties shall in such an event negotiate in good faith in order to agree the terms of a mutually satisfactory provision to be substituted for the invalid, illegal or unenforceable provision which as nearly as possible gives effect to their intentions as expressed in this Agreement. Failure to agree on such a provision within one month of commencement of those negotiations shall result in automatic termination of this Agreement. The obligations of the parties under any invalid, illegal or unenforceable provision of the Agreement shall be suspended during such a negotiation.

**12. Waiver**

12.1 The failure of a party to exercise or enforce any right under this Agreement shall not be deemed to be a waiver of that right nor operate to bar the exercise or enforcement of it at any time or times thereafter.

**13. Entire Agreement**

13.1 This Agreement and, to the extent applicable, the Code, constitute the entire, complete and exclusive agreement between the parties in relation to the subject matter hereof, being the terms of engagement of the Members by the Disputing Parties.

**14. Governing Law and Jurisdiction**

14.1 Any dispute or claim arising out of or in connection with this Dispute Resolution Agreement shall be governed by the laws of Northern Ireland and the parties submit to the exclusive jurisdiction of any of the Courts of Ireland or Northern Ireland for all disputes arising out of or under this Dispute Resolution Agreement, in accordance with the terms of the Code.

EXECUTED THIS      DAY OF

BY

.....

DISPUTING PARTY

.....

DISPUTING PARTY

...

.....

DRB MEMBER

.....

DRB MEMBER

.....

DRB MEMBER

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## APPENDIX P: PROFILING CALCULATIONS

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P.1 Intentionally blank.



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## APPENDIX Q: INTENTIONALLY BLANK

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Q.1 Intentionally blank.

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## APPENDIX R: FORM OF AUTHORITY

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### FORM OF AUTHORISATION AND CONSENT FOR APPOINTMENT OF AN INTERMEDIARY

THIS FORM OF AUTHORISATION AND CONSENT dated the [] day of [] [200\_] is made between:

(I) [Insert name of generator (if a company, please give full corporate name)]:

("Licensed Generator")

having its place of business at [Insert address of Licensed Generator]

being a [registered company/partnership/sole trader etc] registered under the laws of [insert country of registration if a company] and whose company registration number is [insert if a company];

and

(II) [Insert name of proposed intermediary (if a company, please give full corporate name)]

("Intermediary")

having its place of business at [Insert address of Licensed Generator]

being a [registered company/partnership/sole trader etc] registered under the laws of [insert country of registration if a company] and whose company registration number is [insert if a company].

In respect of

[Insert description of generator unit or units to which this form of Authorisation applies]

("Units")

Whereas

1. The Licensed Generator legally controls the Units and is the subject of a [licence/authorisation/exemption] issued by the CER to use the Units for the purpose of generation of electricity in Ireland and/or a [licence/authorisation/exemption] issued by the NIAER to use the Units for the purpose of generation of electricity in Northern Ireland];
2. The Licensed Generator and the Intermediary are parties to a contract ("the Contract") which satisfies all of the criteria for appointment of an Intermediary pursuant to Regulatory Authorities' Decision Paper AIP/SEM/07/029;
3. The Licensed Generator wishes to appoint the Intermediary to act as the Participant in respect of the Units under the Code for the purposes of their participation in the gross mandatory pool ("Pool") for the trade in electricity in the all-island wholesale single electricity market ("SEM") and the Intermediary wishes to accept such appointment, in accordance with the following terms.

#### **1. Interpretation**

- 1.1 Capitalised terms which are not defined in this form of Authorisation and Consent shall have the meanings ascribed thereto in the Trading and Settlement Code.

#### **2. Authorisation and Consent**

- 2.1 The Licensed Generator hereby appoints and authorises the Intermediary to register the Units as Generator Units for the purposes of participation in the Pool under the Trading and Settlement Code and the Intermediary accepts such appointment.
- 2.2 The Licensed Generator authorises the Intermediary, subject to the Intermediary becoming a party to the Code and successfully registering the Units under the Code, to undertake all of the obligations, covenants, undertakings, duties and liabilities of a Participant in respect of the Units under the Code [during the first 12 months from the Market Start Date]/[for the duration of the Contract] and the Intermediary agrees to such.
- 2.3 The Licensed Generator authorises the Intermediary, subject to the Intermediary becoming a Party to the Code and successfully registering the Units under the Code, to benefit from all of the rights of a Participant under the Code, including the right to receive payments under the Code, in respect

of the Units [during the first 12 months from the Market Start Date]/[for the duration of the Contract] and the intermediary agrees to such.

**3. Governing Law and Jurisdiction**

- 3.1 The governing law of this Form of Authorisation and Consent shall be the law of Northern Ireland.
- 3.2 The parties hereby submit to the exclusive jurisdiction of the Courts of [Ireland and/or Northern Ireland] in respect of any and all disputes arising out of this Form of Authorisation and Consent.  
[If the Licensed Generator is a company:]

Present when  
Common Seal of  
The Licensed Generator  
Was affixed hereto: -  
DIRECTOR

DIRECTOR/SECRETARY

[If the Licensed Generator is not a company:]

SIGNED sealed and delivered  
By the Licensed Generator  
In the presence of: -

[If the Intermediary is a company:]

Present when  
Common Seal of  
The Intermediary

Was affixed hereto: -  
DIRECTOR

DIRECTOR/SECRETARY

[if the Licensed Generator is not a company:]

SIGNED sealed and delivered