

## Proposed Modifications to Metering code (CER/07/085)

Section	Existing Metering Code	Proposed Modification
Preface 1  2  4 Section (c)	<p>This Metering Code constitutes the Ireland metering arrangements that facilitate the SEM and other commercial requirements in Ireland for metered data.</p> <p>The Metering Code specifies the minimum technical, design and operational criteria to be complied with for all commercial metering and data collection equipment..</p> <p>Meter Approval, Certification and Testing</p>	<p>This Metering Code constitutes the Republic of Ireland revenue metering arrangements that facilitate the SEM and other commercial requirements in the Republic of Ireland for metered data.</p> <p>The Metering Code specifies the minimum technical, design and operational criteria to be complied with for all revenue metering and data collection equipment...</p> <p>Metering Equipment Approval, Certification and Testing</p>
1.0 Definitions	<p><b>Active Energy</b> - Not Defined</p> <p><b>Active Power</b> - Not Defined</p> <p><b>Apparatus</b> - Not defined</p>	<p>Insertion of definition for:</p> <p><b>Active Energy</b>                      The integral with respect to time of the Active Power, which is normally measured in kilowatt-hours (kWh) or Megawatt-hours (MWh).</p> <p><b>Active Power</b>                      The product of voltage and the in-phase component of alternating current, which is normally measured in kilowatts (kW) or Megawatts (MW).</p> <p><b>Apparatus</b></p>

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	<p data-bbox="421 453 1075 560"><b>Business Day</b> Any day other than a Saturday or Sunday or a public holiday in the Republic of Ireland</p> <p data-bbox="421 600 1120 740"><b>Check Meter</b> The meter nominated to provide electrical energy measurements at a metering point for verification or substitution.</p> <p data-bbox="421 823 880 852"><b>Connection Point</b> - Not defined</p> <p data-bbox="421 1043 1133 1184"><b>Demand Period</b> Demand Period means the time period over which active power is integrated to produce Demand Values.</p> <p data-bbox="421 1230 1137 1335"><b>Demand Value</b> Demand values, expressed in kW or kVAr are four times the value of kWh or kVArh recorded during</p>	<p data-bbox="1176 233 2033 411">Means an item of equipment in which electrical conductors are used, supported or of which they may form a part and includes meters, lines and appliances used or intended to be used for carrying electricity for the purpose of supplying or using electricity.</p> <p data-bbox="1176 453 1955 560"><b>Business Day</b> Any day, other than a Saturday or a Sunday or a public holiday or bank holiday, in the Republic of Ireland</p> <p data-bbox="1176 600 2033 740"><b>Check Meter</b> The meter nominated to provide electrical energy measurements at the Actual Metering Point for verification or substitution.</p> <p data-bbox="1176 823 2040 1002"><b>Connection Point</b> The physical point where the User's Generator Unit or a constituent of a Supplier Unit or premises as applicable is joined to the Transmission System or the Distribution System as appropriate.</p> <p data-bbox="1176 1043 1951 1150"><b>Demand Period</b> The time period over which Active Power and Reactive Power is integrated to produce Demand Values.</p> <p data-bbox="1176 1230 2033 1335"><b>Demand Values</b> Unless otherwise states, the demand expressed in kW or kVAr of Active Power and Reactive Power respectively. The</p>

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	<p>any demand period. The Demand Values are 15-minute demands and these are identified by the time of the end of the Demand Period.</p> <p><b>Director of Legal Metrology</b> Independent Government Body responsible for ensuring that equipment complies with this Metering Code.</p> <p><b>Distribution System</b> – Not defined</p> <p><b>Distribution System Operator (DSO)</b> Means the Board in its capacity as distribution system operator licensed pursuant to section 14(1)(g) of the Electricity Regulation Act, 1999;</p> <p><b>ESB</b> – Not defined</p> <p><b>ESB Networks Ltd</b></p> <p><b>Export</b> An electricity flow into the Distribution/Transmission system from a user</p>	<p>Demand Values shall be measured over a 15-minute period, and are therefore four times the value of kWh or kVArh recorded during the same time period.</p> <p><b>Director of Legal Metrology</b> Independent Government Body responsible for regulating and supervising weights and measures in Ireland.</p> <p><b>Distribution System</b> Means, in respect of Ireland, all electric lines of ESB and includes any electric plant, transformers and switch gear of ESB which is used for conveying electricity to Final Customers.</p> <p><b>Distribution System Operator (DSO)</b> ESB Networks Ltd. as operator of the Distribution System licensed pursuant to section 14(1)(g) of the Electricity Regulation Act 1999</p> <p><b>ESB</b> The Electricity Supply Board in its capacity as the Transmission System and Distribution System Owner</p> <p>Licensee of the Distribution business licensed pursuant to section 14(1)(g) of the Electricity Regulation Act, 1999</p> <p><b>Export</b> An electricity flow into the Distribution or Transmission System from a User</p>

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	<p><b>Generator</b> Has the meaning given to the term “Generation Participant” in the Single Electricity Market Trading and Settlement Code</p> <p><b>Generator Unit</b> Has the meaning given in the Single Electricity Market Trading and Settlement Code.</p> <p><b>Import</b> An electricity flow out of the Distribution/Transmission system to a user.</p> <p><b>Main Meter</b> The meter nominated to provide electrical energy measurements at a metering point</p> <p><b>Market Operator</b> Has the meaning given in the Single Electricity Market Trading and Settlement Code</p> <p><b>Maximum Import Capacity (MIC)</b> Means the amount of electricity expressed in KW and kVA referred to as being the “Maximum Import Capacity” in the connection agreement between ESB Networks or the TSO as appropriate and the customer.</p>	<p><b>Generator</b> Has the meaning given to the term “Generation Participant” in the Trading and Settlement Code</p> <p><b>Generator Unit</b> Has the meaning given in the Trading and Settlement Code.</p> <p><b>Import</b> An electricity flow out of the Distribution or Transmission system to a User</p> <p><b>Main Meter</b> The meter nominated to provide electrical energy measurements at the Actual Metering Point for revenue purposes.</p> <p><b>Market Operator</b> Has the meaning given in the Trading and Settlement Code.</p> <p><b>Maximum Import Capacity (MIC)</b> The maximum allowed amount of electricity demand expressed in kVA or MVA referred to as being the “Maximum Import Capacity” in the Connection Agreement between the DSO or the TSO as appropriate and the customer.</p>

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	<p><b>Meter</b> A device for measuring and recording units of electrical energy.</p> <p><b>Meter Advance Reconciliation</b> – not defined</p> <p><b>Meter Registration System Operator or MRSO</b> Means the unit of the ESB Networks business which discharges the functions described in condition 8 of the DSO licence and provides the services described in condition 9 of the DSO licence.</p> <p><b>Plant</b> – not defined</p> <p><b>Public Electricity Supplier (PES)</b> The Board in its capacity as Public Electricity Supplier.</p>	<p><b>Meter</b> A device for measuring and recording units of electrical demand energy and power.</p> <p><b>Meter Advance Reconciliation</b> Is the collection and processing of Billing meter readings and the reconciliation of such meter readings with settlement values collected electronically and stored in the TSO Data Collection System. This Reconciliation is achieved by comparing the meter register readings with the accumulated interval data recorded in the TSO Data Collection System.</p> <p><b>Meter Registration System Operator (MRSO)</b> The unit of the DSO business which discharges the functions described in condition 8 of the DSO licence and provides the services described in condition 9 of the DSO licence and act as the Relevant Data provider for DSO.</p> <p><b>Plant</b> Means fixed and movable items used in the generation and/or supply and/or distribution of electricity, other than Apparatus.</p> <p><b>Public Electricity Supplier (PES)</b> The Electricity Supply Board (or its legal successor in title) licensed pursuant to Section 14(1)(h) of the Electricity Regulation Act 1999.</p>

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	<p><b>Reactive Energy</b> The integral with respect to time of the Reactive Power</p> <p><b>Reactive Power</b> – Not defined</p> <p><b>Register</b> A device, normally associated with a Meter, from which it is possible to obtain a reading of the amount of Active Energy or Reactive Energy that has been supplied by a circuit, or a Demand Value.</p> <p><b>Relevant Data Provider</b> – Not defined</p> <p><b>Relevant Meter Operator</b> The entity obliged under the Single Electricity Market Trading and Settlement Code or obliged under licence, issued by the Commission, to operate and provide for the installation, testing, calibration and data collection of a defined set of metering points.</p>	<p><b>Reactive Energy</b> The integral with respect to time of the Reactive Power, which is normally measured in kilovar-hours (kVArh) or Megavar-hours (MVARh)</p> <p><b>Reactive Power</b> The product of voltage and current and the Sine of the phase angle between them, which is normally measured in kilovars (kVAr) or Megavars (MVAR).</p> <p><b>Register</b> A device, normally associated with a Meter, which records the cumulative amount of Active Energy (kWh), Reactive Energy (kVArh) or Demand Values (kW/kVAr) that have been supplied by a circuit, from which it is possible to obtain readings over specified time periods.</p> <p><b>Relevant Data Provider</b> The entity obliged under the Trading and Settlement Code or obliged under Licence, issued by the Commission, to collect and validate data for a defined set of metering points. The Relevant Data Providers are DSO and TSO.</p> <p><b>Relevant Meter Operator</b> The entity obliged under the Trading and Settlement Code or obliged under Licence, issued by the Commission, to operate and provide for the installation, testing and calibration of a defined set of metering points. The Relevant Meter Operators are DSO and TSO.</p>

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	<p data-bbox="421 304 734 336"><b>SCADA</b> – Not defined</p> <p data-bbox="421 600 1003 703"><b>Settlement System Administrator</b> The party so identified in the Trading and Settlement Code</p> <p data-bbox="421 751 1137 1150"><b>Single Electricity Market Trading and Settlement Code</b> Means the Trading and Settlement Code developed pursuant to section 23 of the Northern Ireland (Miscellaneous Provisions) Act 2006 and the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007, and in Ireland pursuant to section 9BA(1) of the Electricity Regulation Act 1999 (Ireland) and as designated pursuant to regulations made under section 9BA(2)(a) of the Electricity Regulation Act 1999 (Ireland).</p> <p data-bbox="421 1190 1077 1294"><b>Supplier</b> Has the meaning given in the Single Electricity market Trading and Settlement Code</p>	<p data-bbox="1176 304 2040 520"><b>SCADA</b> Means Supervisor Control and Data Acquisition. SCADA refers to a system that collects data from various measuring devices at a generation plant or in other remote locations and then sends this data to a Control Center. In the case of the TSO this is the National control centre.</p> <p data-bbox="1176 600 1984 632"><b>Settlement System Administrator</b> – Definition removed</p> <p data-bbox="1176 751 2029 815"><b>Single Electricity Market Trading and Settlement Code</b> – Definition removed</p> <p data-bbox="1176 1190 2018 1262"><b>Supplier</b> Has the meaning given in the Trading and Settlement Code</p>

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	<p data-bbox="421 233 819 264"><b>Supplier Unit</b> – Not defined</p> <p data-bbox="421 344 864 376"><b>Trading and Settlement Code</b> The code of that name which sets out the rules for wholesale market settlement and the responsibilities of parties to the code to be developed pursuant to section 9(1)(d) of the Electricity Regulation Act, 1999</p> <p data-bbox="421 679 954 711"><b>Transmission System</b> – Not defined</p> <p data-bbox="421 1015 1099 1190"><b>Transmission System Owner</b> Means the Board as owner of the transmission system, licensed pursuant to Section 14(1)(e) (Licensing of Transmission System Operator) of the Electricity Regulation Act, 1999</p>	<p data-bbox="1176 233 2018 296"><b>Supplier Unit</b> Has the meaning given in the Trading and Settlement Code</p> <p data-bbox="1176 344 2051 632"><b>Trading and Settlement Code</b> The Code developed pursuant to section 23 of the Northern Ireland (Miscellaneous Provisions) Act 2006 and the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007, and in Ireland pursuant to section 9BA(1) of the Electricity Regulation Act 1999 (Ireland) and as designated pursuant to regulations made under section 9BA(2)(a) of the Electricity Regulation Act 1999 (Ireland)</p> <p data-bbox="1176 679 2051 967"><b>Transmission System</b> The System consisting (wholly or mainly) of high Voltage electric lines and cables operated by the TSO for the purpose of transmission of electricity from one Power station to a sub-station or to another Power Station or between sub-stations or to or from any External Interconnection including any Plant and Apparatus and meters owned or operated by the TSO or ESB in connection with the transmission of electricity.</p> <p data-bbox="1176 1015 1917 1046"><b>Transmission System Owner</b> – Definition removed</p>
2.0 General Provisions 2.1.2	Not inserted	The provision of this Metering code shall apply equally to



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2.2.1	This Metering code applies to the Transmission System Owner, Transmission System Operator, the Distribution System Operator...	Main and check Meters.  This Metering code applies to the Transmission System Operator and the Distribution System Operator.
2.2.2	Not included	Table listing associated documentation.
2.4.1	If a User finds that.....and shall, subject to the provisions of 2.4.2 make such reasonable efforts...	If a User finds that.....and shall, subject to the provisions of Section 2.4.2 make such reasonable efforts....
2.4.2 (a) (b)	With reference to Plant and/or... With reference to Plant and/or... And the User believes either that it would be unreasonable.....with the requirements of 2.4.3 and shall provide the Commission.....	With reference to User's Plant and/or... With reference to User's Plant and/or... And the User believes either that it would be unreasonable.....with the requirements of Section 2.4.3 and shall provide the Commission.....
2.4.3 (e)	The date by which compliance will be achieved (if remedy of the non-compliance is possible) subject to 2.4.2 (b)	The date by which compliance will be achieved (if remedy of the non-compliance is possible) subject to Section 2.4.2 (b).
2.4.4	If the User finds that it is, or will be, unable to comply with any provision of this Metering Code, then it shall, subject to the remaining provisions of (2.4) make such reasonable efforts as are required to remedy such non-compliance as soon as reasonably practicable.	Paragraph removed
2.4.5	.....In its consideration of a derogation request by the User, the Commission may contact	Section Renumbered to 2.4.4 - .....In its consideration of a derogation request by the user, the Commission may contact

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2.4.6	<p>the any of the Users to obtain clarification of the request or to discuss changes to request.</p> <p>Derogation from any provision of the Metering Code shall contain:</p> <ul style="list-style-type: none"> <li>(a) The issue number and the date of the Metering Code provision against which the derogation applies;</li> <li>(b) Identification of the provision with which the derogation applies;</li> <li>(c) Identification of the Plant and/or Apparatus in respect of which a derogation applies and, if relevant, the nature and extent to which the derogation applies including alternate compliance provision;</li> <li>(d) The reason for the non-compliance requiring derogation;</li> <li>(e) The date by which the derogation ends if compliance will be achieved, or by which such derogation expires</li> </ul> <p>To the extent of any derogation granted in accordance with 2.4 above, the User seeking the derogation/and or the other Users shall be relieved from its obligation to comply with the applicable provision of the Metering Code and shall not be liable for failure to so comply but shall comply with any alternate provision as set forth in the derogation.</p>	<p>the User or the Relevant Meter Operator to obtain clarification of the request or to discuss changes to request.</p> <p>(a) to (e) removed</p> <p>Section Renumbered to 2.4.5 – To the extent of any derogation granted in accordance with Section 2.4.4 above, the user shall be relieved from its obligation to comply with the applicable provision of the Metering code and shall not be liable for failure to so comply but shall comply with any alternate provision as set forth in the derogation.</p>

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2.4.7	The commission shall: (b) On request from any User, provide a copy of such register of derogations to such User	Section Renumbered to 2.4.6 (b) On request from the Relevant Meter Operator or any User, provide a copy of such register of derogations to such user.
2.4.9	Where a material change in circumstance has occurred, a review of any existing derogations, and any derogations under consideration, may be initiated by the Commission at the request of a user or at the instigation of the Commission	Section Renumbered to 2.4.7
2.6.1	Metering shall be provided and installed as soon as is reasonable practicable, maintained and inspected by Relevant Meter Operator to the standards specified in this Metering Code	Metering Equipment shall be provided and installed as soon as is reasonably practicable and shall be maintained and inspected by Relevant Meter Operator to the standards specified in this Metering Code.
3.0	Meter Approval, Certification and Testing	Metering Equipment Approval, Certification and Testing
3.1	The Director of Legal Metrology has responsibility for Meter type approval, Meter certification and Meter testing. For compliance with the provisions of this Metering Code these functions will be carried out by the Relevant Meter Operator.	The Director of Legal Metrology has responsibility for Meter type approval, Meter certification and Meter testing for Active Electricity Energy Meters as defined in Annex MI-003 of EC Directive 2004/22 (as amended). For compliance with the provisions of this Metering Code these functions will be carried out by the Distribution System Operator.
3.2	The Relevant Meter Operator shall maintain records relating to the calibration of all Metering Equipment including the dates and results of any	The Relevant Meter Operator shall maintain records relating to the calibration of all Metering Equipment including the dates and results of any tests, readings, adjustments. Any

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3.3	<p>tests, readings, adjustments. Records shall also include any other details as may be reasonably required by the Director of Legal Metrology. Any such records shall be complete and accurate and retained for the life of the relevant item of Metering Equipment.</p> <p>The Relevant Meter Operator shall make arrangements to seal all Metering Equipment, data collection equipment and associated modems and telephone links.</p>	<p>such records shall be complete and accurate and retained for the life of the relevant item of Metering Equipment.</p> <p>The Relevant Meter Operator shall make arrangements to seal all Metering Equipment including the dates and associated modems and telephone links.</p>
3.6	<p>Any affected user may request a test to be carried out and should bear the reasonable costs of such testing if the Meter is found to be operating within the prescribed limits of error. Tests will be organised such that all relevant users are aware of the tests, are invited to witness them if required and the test results are made available to the User involved.</p>	<p>Any affected user may request a test to be carried out. Tests will be organised such that all relevant Users are aware of the tests, are invited to witness them if required and the test results are made available to the User involved.</p>
3.8	<p>Amendment to last sentence - In such cases, substitute data shall be provided for settlement purposes in accordance with the MRSO procedures.</p>	<p>In such cases, substitute data shall be provided for settlement purposes in accordance with the Trading and Settlement Code agreed procedures.</p>
4.0 Meter Data Management 4.2.1	<p>Metering Equipment shall be installed such that metered data held in the Metering installation is protected from direct local or remote electronic</p>	<p>Metering Equipment shall be installed such that metered data held in the metering installation is protected from direct local or remote electronic access by suitable password and</p>

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4.2.2	<p>access by suitable password and security controls.</p> <p>The data will be validated and substituted or estimated data will be provided where appropriate by the Relevant Meter Operator. The data shall be processed and aggregated to rules set out by the Meter Registration System Operator (MRSO).</p>	<p>security controls.</p> <p>The data will be validated and substituted, or estimated data will be provided where appropriate, by the Relevant Data Provider. The data shall be processed and aggregated to rules set out by the Trading and Settlement Code.</p>
4.2.3	<p>As a minimum for each registered Meter, [7] full years of metered data shall be retained.</p>	<p>As a minimum, for each registered Meter, seven [7] full years of metered data shall be retained.</p>
5.0 General Technical Criteria	<p>5.1 This section defines the general technical requirements for the Metering Equipment required for the measurement and recording of electricity transfers at Defined Metering Points (DMPs). The provisions of this metering Code shall apply equally to Main and Check Meters.</p> <p>5.2 The following Standards are referred to in the text:</p> <ul style="list-style-type: none"> <li>(a) I.S. EN 60687 – Alternating Current Static Watt-Hour Meters for Active Energy (Cl. 0.2S and 0.5 S)</li> <li>(b) I.S. EN61268 – Alternating Current Static Var-Hour Meters for Reactive Energy (Cl. 2 and 3)</li> <li>(c) I.S. EN60521 – Cl. 0.5, 1.0 and 2.0 for</li> </ul>	<p>This section defines the general technical requirements for the Metering Equipment required for the measurement and recording of electricity transfers at Defined Metering Points (DMPs).</p> <p>The general technical requirements include, but are not limited to the following national and international standards;</p> <ul style="list-style-type: none"> <li>(a) I.S. EN 62053-22 – Alternating Current Static Watt-Hour Meters for Active Energy (Cl. 0.2S and 0.5 S)</li> <li>(b) I.S. EN 62053-23 – Alternating Current Static Var-Hour Meters for Reactive Energy (Cl. 2 and 3)</li> <li>(c) I.S. EN 62053-11 – Cl. 0.5, 1.0 and 2.0 for alternating-current wathour Meters.</li> </ul>

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	<p>alternating-current watthour Meters.</p> <p>(d) I.S. EN 60044-1 – Current Transformers</p> <p>(e) I.S. EN 60044-2 – Voltage Transformers</p> <p>(f) I.S. EN 60044-3 – Instrument Transformers – Combined Transformers</p> <p>(g) IEC Standard 61036 - Alternating Current Static Watt-hour Meters for Active Energy (Cl. 1 and 2)</p> <p>(h) I.S. EN61107 – Data Exchange for Meter reading – direct local data exchange.</p> <p>(i) Data Protection Act (1988)</p>	<p>(d) I.S. EN 60044-1 – Current Transformers</p> <p>(e) I.S. EN 60044-2 – Voltage Transformers</p> <p>(f) I.S. EN 60044-3 – Instrument Transformers – Combined Transformers</p> <p>(g) IEC Standard 62053-21 - Alternating Current Static Watt-hour Meters for Active Energy (Cl. 1 and 2)</p> <p>(h) I.S. EN 62056-21 – Data Exchange for Meter reading – direct local data exchange.</p> <p>(i) Data Protection Act (1988-2003)</p> <p>These Standards may be updated, amended, replaced, consolidated, repealed or re-enacted from time to time.</p>
5.3.1	<p>The Defined Metering Point shall be at the connection point on the Distribution or Transmission System as applicable, as defined in the relevant connection agreement to the system.</p>	<p>The Defined Metering Point shall be at the Connection Point on the Distribution or Transmission System as applicable, as defined in the relevant connection agreement to the system.</p>
5.4.1	<p>For connections greater than or equal to 10 MVA, and for generators with connections below 10MVA who opt to participate in the wholesale market under the Single Electricity Market Trading and Settlement Code and who affect price in the wholesale market, Main and Check Metering shall be provided. Main and Check Meters shall operate from separate current transformers (CT) and voltage transformers (VT) windings.</p>	<p>For connections greater than or equal to 10 MVA and for generators with connections below 10MVA who opt to participate in the wholesale market under the Trading and Settlement Code, Main and Check Metering shall be provided. Main and Check Meters shall operate from separate current transformers (CT) and voltage transformers (VT) windings.</p>
5.4.3	<p>CT and VT windings and cables connecting such windings to Check Meters may be used for other</p>	<p>CT and VT windings and cables connecting such windings to Check Meters may be used for other purposes provided the</p>

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5.4.5	<p>purposes provided the overall accuracy requirements are met and evidence of the value of the additional burden is available for inspection by the Settlement System Administrator or Market Operator.</p> <p>Where sub-metering of certain Generator Units is required, with the agreement of Relevant Meter Operator a customer may supply metering class CTs and VTs for use on the sub-circuits. This equipment must comply with the standards set out in this Metering Code. Such equipment shall be subject to acceptance testing by Relevant Meter Operator for each site.</p>	<p>overall accuracy requirements are met and evidence of the value of the additional burden is available for inspection by the Market Operator.</p> <p>Where sub-metering of certain Generator Units is required, with the agreement of Relevant Meter Operator, a User may supply metering class CTs and VTs for use on the sub-circuits. This equipment must comply with the standards set out in this Metering Code. Such equipment shall be subject to acceptance testing by Relevant Meter Operator for each site.</p>
5.5	Measurement Parameters	Measurement Parameters
	The Relevant Meter Operator shall .....	5.5.1 The Relevant Meter Operator shall.....(first paragraph numbered)
5.5.1	Labelled as Section 5.5.1	Renumbered as 5.5.2
5.5.2	Labelled as Section 5.5.2	Renumbered as 5.5.3
5.5.3	<p>Labelled as Section 5.5.3</p> <p>For connections where electricity is traded on a seasonal time of day (STOD) tariff, approved by the Commission, the metering shall provide the following Registers;</p>	<p>Renumbered as 5.5.4</p> <p>For connections where electricity is charged on a seasonal time of day (STOD) tariff, the metering shall provide the following Registers:</p>

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5.5.4	<p>Labelled as Section 5.5.4</p> <p>For connections with an MIC of less than the threshold specified in the relevant policy document, only import kWh shall be measured (except where supplies are unmetered by agreement as per the threshold specified in the relevant policy document). Where required Meters shall be suitable for multi or time of use tariffs controlled by [an integral clock].</p>	<p>Renumbered as 5.5.5</p> <p>For connections with an MIC of less than the threshold specified in the relevant policy document, only import kWh shall be measured (except where supplies are unmetered by agreement as per the threshold specified in the relevant policy document). Where required, Meters shall be suitable for multi or time of use tariffs</p>
<p>5.6 Metering Equipment Standards</p> <p>5.6.4</p> <p>5.6.6</p>	<p>Meters in accordance with I.S. EN 60687, I.S. EN61036 or I.S. EN60521 as appropriate (or equivalent European Standard) shall be connected to the CT and VT, except where the Meter is direct connected, and shall be located in a secure environment adjacent to any associated data logging and telecommunications equipment.</p> <p>Whole current meters will be installed in accordance with the relevant meter operator's policy as set out in the National Code of Practice for Customer Interface document.</p>	<p>Meters in accordance with I.S. EN 62053-22, I.S. EN 62053-21 or I.S. EN 62053-11 as appropriate (or equivalent European Standard) shall be connected to the CT and VT, except where the Meter is directly connected, and shall be located in a secure environment adjacent to any associated data logging and telecommunications equipment.</p> <p>Meters and Metering Equipment shall be installed in accordance with the Relevant Meter Operator's policy. In the case of the DSO, the current policy is set out in the National Code of Practice for Customer Interface document.</p>
5.7 Equipment		



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Accuracy and Error Limits 5.7.1	The accuracy of the various items of measuring equipment shall conform to the relevant IEC standards (or equivalent European Standards).	The accuracy of the various items of measuring equipment shall conform to the relevant national IEC Standards (or equivalent European Standards).
5.7.2	For the purpose of this Metering Code the rated circuit capacity in MVA shall be determined by the lowest rated primary plant (e.g. transformer rating, line rating, etc) of the circuit. The Metering Equipment provision and accuracy requirements shall anticipate any future up-rating of the installed primary plant. The primary plant maximum continuous ratings shall be used in this assessment.	For the purpose of this Metering Code the rated circuit capacity in MVA shall be determined by the lowest rated primary plant (e.g. transformer rating, line rating, etc) of the circuit. The selection of Metering Equipment and accuracy requirements shall take into consideration the installed primary plant maximum continuous ratings.
5.7.3	<p>The accuracy class or equivalent, is based on the MVA capacity of the connection and shall as a minimum be as follows, subject to operating within the combined limits of error set out in 5.7.6 below:-</p> <p>Table not labelled</p>	<p>The accuracy class or equivalent, is based on the MVA capacity of the connection and shall as a minimum be as follows (subject to operating within the combined limits of error set out in Section 5.7.6 below):-</p> <p>Insert Table Label: Table 1 – Equipment Accuracy Class – Active and Reactive Energy</p> <p>Meters divided into Active and Reactive</p> <p>Insert section for TSO</p>

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5.7.4	VT, CT and Meter Test Certificates shall be made available for inspection by the DLM.	Removed as already covered in Section 3.2																																																																							
5.7.5	Labelled as Section 5.7.5	Renumbered as 5.7.4																																																																							
5.7.6	Labelled as Section 5.7.6 Table not labelled	Renumbered as 5.7.5 - Insert Table Label: Table 2 – Limits of Error at Stated Power Factor – Active Energy Insert section for TSO																																																																							
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Hourly Metering		
6.2.3	Where quarter hourly metering is installed and is being read remotely and being used for billing purposes, this data shall also be used for any requirements of approved STOD tariffs etc. This has not been approved.	Paragraph removed
6.3 Data Storage		
6.3.1	<p>(a) a storage capacity of 96 periods per day for a minimum of [20] days for all Demand Values;</p> <p>(i) Data storage shall be provided internal or external to the Meter by way of a data logger;</p> <p>(j) Meters that provide data to data loggers external to the Meter shall provide an output per measured quantity.</p>	<p>(a) a storage capacity of 96 periods per day for a minimum of twenty [20] days for all Demand Values.</p> <p>(i) removed</p> <p>(j) removed</p>
6.4.3	Site specific Isolation requirements may also apply in accordance with established good practice and in line with the specific requirements of the Telecommunications Service provider.	Site specific isolation requirements may also apply in accordance with established good practice and in line with the specific requirements of the telecommunications service provider.
6.4.5	Remote interrogation shall be by means of dial-up telephone, leased line, mains borne, packet switching data networks or other suitable system,	Remote interrogation shall be by means of dial-up telephone, leased line, mains borne, packet switching data networks or other suitable system, using Meter and communications

Section	Existing Metering Code	Proposed Modification
	using Meter and communications equipment protocols as specified by the Relevant Meter Operator and other data systems required under the Trading and Settlement Code, or the Single Electricity Market Trading and Settlement Code.	equipment protocols as specified by the Relevant Meter Operator and other data systems required under the Trading and Settlement Code
6.7	Reconciliation of Display Reading	Reconciliation of Display Reading for DSO Connected Metering
6.7.1	<p>Cumulative total energy Registers from Meters are read remotely each day and are compared with the electronically recorded total energy for the day as part of the ongoing data validation by ESB Networks.</p> <p>On a random sample basis of 5% of these metering sites, a manual read will be taken every twelve months for checking purposes.</p>	<p>Cumulative total Active and Reactive Energy Registers from Meters are read remotely each day and are compared with the electronically recorded total energy for the same time period, as part of the ongoing data validation by DSO. This energy tolerance calculation is carried out by the central Data Collection System, and differences greater than <math>\pm 2\%</math> result in automatic rejection of the metered data.</p>
6.7.3	If the cumulative total energy Register is not available remotely, then a manual read will be taken at twelve monthly intervals for checking purposes.	6.7.2 For meters where the cumulative total energy Register is not available to be read remotely, then a manual read will be taken at twelve monthly intervals for checking purposes from a random sample of 5% of these metering sites, and:
6.7.4	Within twenty (20) Business Days from the date of a manual Meter reading a Meter Reconciliation Statement shall be produced. The difference between the latest manual Meter Register readings and previous manual Meter Register readings shall	(1) Within twenty [20] Business Days from the date of a manual meter reading a meter reconciliation statement shall be produced. The difference between the latest manual meter register readings and the previous manual meter register readings

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6.7.5	<p>be calculated and compared with the electronically recorded total energy for the time interval involved.</p> <p>The calculations shall be recorded and differences greater than [0.1%] shall be highlighted and referred for checking. Where the checks confirm the discrepancy the MRSO and other parties as required shall be informed and appropriate actions shall be taken in accordance with the procedures set out by the MRSO.</p>	<p>shall be calculated and compared with the electronically recorded total energy for the time interval involved, and</p> <p>(2) The calculations shall be recorded and differences greater than 0.1% shall be highlighted and referred for checking. Where the checks confirm the discrepancy the MRSO and other parties as required shall be informed and appropriate actions shall be taken in accordance with the procedures set out by the MRSO.</p>
6.8	Section not in existing Metering Code	Reconciliation of Display Reading for TSO Connected Metering
6.8.1	Section not in existing Metering Code	Meter Advance Reconciliation shall be undertaken in accordance with TSO's Metering procedures.