

**Schedule 19**  
**Chapter 8**  
**Metering Code of Practice S8**  
**Code for the Metering of Import Active**  
**Energy via Low Voltage Circuits for**  
**Non Half Hourly Allocation purposes**  
**Issue 1**

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**CODE FOR THE METERING OF IMPORT ACTIVE ENERGY VIA LOW  
VOLTAGE CIRCUITS FOR NON HALF HOURLY ALLOCATION  
PURPOSES**

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Superseded

## **Foreword**

*Introduction:* This Metering Code of Practice ("Code") forms part of the Settlement Agreement for Scotland (the "Agreement"). In the event of inconsistency between the provisions of this Code and the other provisions of this Agreement, Clause 1.4 (Hierarchy in this Agreement) shall apply.

*Technical equivalent:* This Code is technically equivalent to Code of Practice 8 version 1.0 in England and Wales.

*Purpose:* This Code specifically applies to directly connected and transformer operated Metering Equipment to be installed for the metering of Import Active Energy via low voltage circuits for Non Half Hourly Allocation purposes.

*Copies:* Scottish Electricity Settlements Limited ("Scottish Settlements") shall retain copies of the Code in accordance with the provisions of this Agreement.

*Responsibility:* Where responsibilities and obligations contained in this Code are expressed as being responsibilities and obligations of a Meter Operator, the Associated Responsible Party shall procure that any Meter Operator appointed by it pursuant to Clause 24.2 (Appointment of Meter Operators for Bulk Supply Points), Clause 39 (Appointment of Supplier Agents) or Clause 54 (Generator Agents) complies with such responsibilities and obligations or may, if permitted to do so by the terms of this Agreement, perform such responsibilities and obligations itself.

## 1. Scope

- 1.1 *Scope:* This Code states the practices that shall be employed, and the facilities that shall be provided for the measurement and recording of the quantities required for Allocation purposes and specifically applies to directly connected and transformer operated Metering Equipment to be installed for the metering of Import Active Energy via low voltage circuits for Non Half Hourly Allocation purposes.
- 1.2 *Extent:* This Code only applies to "whole current" and transformer operated Metering Equipment for Import Active Energy measured in kWh. No provision is made for the measurement of Reactive Energy or Apparent Energy or any Maximum Demand.

This Code defines the extent of Metering Equipment to be installed by a Meter Operator in fulfilling its roles in the provision of Metering Equipment and data for Non Half Hourly Allocation purposes.

This Code does not contain the calibration, testing and commissioning requirements for Metering Equipment used for Allocation purposes. These requirements are detailed in Metering Code of Practice S4 - "Metering Code of Practice for Calibration, Testing and Commissioning Requirements for Metering Equipment for Allocation Purposes".

- 1.3 *Derogations:* Derogations for the requirements of this Code may be sought in accordance with Part IX (Governance of this Agreement).
- 1.4 *Nominated agent:* Where there is a reference to Scottish Settlements having a right or a duty to receive information or to provide a checking role under this Code that information may be received or that role may be performed by Scottish Settlements or any agent nominated by Scottish Settlements.

## 2. References

- 2.1 *References:* The following documents are also referred to in the text:-
- |             |  |
|-------------|--|
| BS EN 61036 | Alternating Current Static Watt-Hour Meters for Active Energy (Classes 1 and |
|-------------|--|

	2);
BS EN 60521	Class 0.5, 1 and 2 Alternating Current Watt-Hour Meters;
BS 7856	Code of Practice for Design of Alternating Current Watt-Hour Meters for Active Energy (Classes 1 and 2);
BS 7951:2000	Electricity Meters. Alternating current single phase watt-hour telemeters of accuracy class 1 or 2;
BS EN 60044-1:1999	Instrument Transformers - Part 1: Current Transformers ("CTs");
Metering Code of Practice S4	Metering Code of Practice for Calibration, Testing and Commissioning Requirements for Metering Equipment for Allocation Purposes;
Electricity Act 1989	Schedule 7 as amended from time to time;
Meter Operator Code of Practice Agreement <sup>1</sup>	Schedule 5 to the Agreement between Meter Operators and Distribution Businesses governing arrangements for safety and technical competence;
International Telecommunication Union - RTF.460 (ISBN92-61-05311-4)	Standard Frequency and Time Signal Emission;
Statutory Instrument 1998 No. 1566	Electricity - The Meters (Certification) Regulations 1998;
TPRD/L/3297/R88	Specification for Radio Teleswitches for tariff and load control; and
Utilities Act 2000	Utilities Act 2000.

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<sup>1</sup> The Meter Operation Code of Practice Agreement is a voluntary agreement between Distribution Businesses and Meter Operators.

### 3. Definitions

3.1 *Definitions:* Save as otherwise expressly provided herein, words and expressions used in this Code shall have the meanings attributed to them in Schedule 1 of the Agreement (Definitions) which for ease of reference are repeated in Appendix 1.

### 4. Measurement Criteria - Directly connected (whole current) Meters

4.1 *Measured quantities:* For each separate circuit measurements of Import Active Energy in kWh are required for Allocation purposes.

Registers shall be provided in accordance with section 6.3.1 Meters and Telemeters.

4.2 *Accuracy Requirements:*

4.2.1 *Type Test Requirements:* Meters shall be type tested in accordance with and satisfy the requirements of BS EN 61036 or BS 7951:2000 or BS EN 60521 as appropriate.

4.2.2 *Import Active Energy Accuracy Requirements:*

Meter Accuracy

CONDITION	LIMIT OF ERRORS AT STATED SYSTEM POWER FACTOR	
	Power Factor	Limits of Error
100% $I_{max}$ to 10% $I_b$ inclusive	1	± 2.0%

4.2.3 *Initial verification (calibration) - Authority Certification:*

Meters shall have been tested and received type approval in accordance with the Statutory Instrument 1998 No. 1565; "The Meters (Approval of Pattern or Construction and Manner of Installation) Regulations 1998" by the Authority (Ofgem) to a standard not less than Class 2 applicable at the time of type approval.

4.2.4 *In-service Accuracy limits:* The overall accuracy of the energy measurements at, or referred to, the Defined Metering Point



shall at all times be within the limits of error for in-service accuracy.

The overall in-service accuracy limits are +2.5% to -3.5% at any load at which the Metering Equipment is designed to operate.

## 5. Measurement Criteria - Current Transformer Operated Meters

5.1 *Measured Quantities:* For each separate circuit measurements of Import Active Energy in kWh are required for Allocation purposes.

Registers shall be provided in accordance with section 6.3.1 Meters and Telemeters.

5.2 *Accuracy Requirements*

5.2.1 *Type Test Requirements:* Meters shall be type tested in accordance with and satisfy the requirements of BS EN 61036 or BS 7951:2000 or BS EN 60521 as appropriate.

5.2.2 *Import Active Energy Accuracy Requirements*

Meter Accuracy

CONDITION	LIMIT OF ERRORS AT STATED SYSTEM POWER FACTOR	
	Power Factor	Limits of Error
Current		
100% $I_{max}$ to 5% $I_n$ inclusive	1	$\pm 2.0\%$

5.2.3 *Initial verification (calibration) - Authority Certification*

Meters shall have been tested and received type approval in accordance with the Statutory Instrument 1998 No. 1565; "The Meters (Approval of Pattern or Construction and Manner of Installation) Regulations 1998" by the Authority (Ofgem) to a standard not less than Class 2 applicable at the time of type approval.

5.2.4 *In-service Accuracy Limits:* The overall accuracy of the energy measurements at, or referred to, the Defined Metering Point shall at all times be within the limits of error for in-service accuracy.

The overall in-service accuracy limits are +2.5% to -3.5% at any load at which the Meter Equipment is designed to operate.

5.2.5 *Voltage supply for Current Transformer operated Meters:* A separately fused voltage supply shall be provided between the cut-out and the current transformer operated Meter. No burden other than Metering Equipment shall be connected to the fused side of the voltage supply. The neutral conductor of the voltage supply to the Meter shall not be fused.

5.2.6 *Access to voltage supply:* Access to the voltage supply fuse(s) shall only be possible by the breaking of a seal.

5.2.7 *Current Transformers installed on existing circuits:* Where circuits, other than those newly installed, are to be metered to this Metering Code of Practice and where the installed current transformers do not comply with the Class accuracies specified in section 6.2, then such current transformers may be used providing the following requirements and those in section 5.2.4 are met and that where subsequently an alteration to the Metering Equipment is carried out, new current transformer(s) shall be provided to meet the accuracy requirements specified in section 6.2 below.

5.2.8 *Access to Current Transformers:* Access to both the primary and secondary sides of current transformers shall only be possible by the breaking of a seal. Where "open ring" current transformers are used, measures shall be taken to prevent unauthorised access to the central aperture, such that no additional conductors may be passed through the aperture without the breaking of a seal.

## **6. Metering Equipment Criteria**

Metering Equipment shall be accommodated in a clean and dry environment.

For each circuit, other than one which is De-energised, the voltage supply to any Meters and displays shall be connected such that it is normally Energised to facilitate reading of the Meter Register(s).

6.1 *Meters:* The Meters may be either static or induction disc types.

For each circuit, Import Active Energy Meters shall be supplied which shall meet the requirements of BS 7856 and either BS EN 61036 Class 2 or BS EN 60521 Class 2 or BS 7951:2000.

Import Active Energy Meters provided for the metering of supplies to Customers shall be in accordance with Schedule 7 of the Electricity Act 1989.

Import Active Energy Meters shall be configured such that the number of measuring elements is equal to or one less than the number of primary system conductors. These include the neutral conductor, and/or the earth conductor where system configurations enable the flow of zero sequence energy. The Meter and any current transformers shall be of a rating appropriate to the installation.

6.2 *Current Transformers:* The term "current transformer" used in section 5 does not preclude the use of other measuring techniques with a performance equal to that specified for such measurement transformers.

For each circuit where a current transformer is used, it shall meet the requirements set out below.

Where required, one set of current transformers to BS EN 60044-1:1999 with a minimum standard of accuracy to Class 0.5 shall be provided per circuit. Preferably the current transformers shall be dedicated for Allocation purposes, but the current transformers may be used for other purposes provided the overall accuracy requirements in section 5.2.4 are met.

The total burden on each current transformer shall not exceed the rated burden of such current transformer.

6.3 *Registers, Displays and Facilities*

6.3.1 *Meters and Telemeters:* Rate registers shall be provided for either:

- (a) the total Import Active Energy measured by that Meter/telemeter; or
- (b) each rate measured by a multi-rate Import Active Energy Meter/telemeter. The sum of such multi-rate registers shall be equal<sup>2</sup> to the total Import Active Energy measured by that Meter/telemeter.

6.3.2 *Displays:* The Metering Equipment shall display the Import Active Energy in kWh for each register utilised on the Meter (not necessarily simultaneously).

6.3.3 *Timeswitches:* Timeswitches, where required, shall be installed and the time set to the time standard (GMT or BST) as required by the Supplier's tariff requirements.

6.3.4 *Teleswitches:* Teleswitches, where required, shall be installed and set to the appropriate Application/User/Group Code in accordance with the Supplier's tariff requirements.

6.3.5 *Time Keeping Accuracy:* Timeswitches, where required, shall be installed and set as close as reasonably practical to the time standard (GMT or BST) as required by the Supplier's tariff requirements. Timeswitches shall be maintained to an accuracy of  $\pm 2$  hours.

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<sup>2</sup> Allowance shall be made for fractions of kWh measured by each register, not being included in the total Import Active Energy calculation.

## **7. Installation of Meters**

7.1 *Accreditation Requirements:* A Supplier is required by the Settlement Agreement for Scotland only to use Accredited Agents for the purposes of providing Meter Operation services. Full details of the procedure are available in MP621 from the Scottish Settlements website ([www.sesl.org.uk](http://www.sesl.org.uk)).

7.2 *Meter Operation Code of Practice Agreement (MOCOPA) requirements:* MOCOPA covers the installation, operation and maintenance of Metering Equipment by Meter Operators. It identifies the safety and technical requirements relevant to Meter Operation, and the interface between a Meter Operator and a Distribution Business. It specifies the requirements for both the Metering business and field staff as appropriate.

The principles within MOCOPA form the basis of good practice for Meter installation, operation and maintenance at any Site that is connected, either to a Distribution System or to any other network.

A party's compliance with MOCOPA is regulated and policed by the Registration Authority<sup>3</sup>.

7.3 *Appropriate Seals:* All Customers' Metering Equipment shall be sealed in accordance with Appendix 8 and 9 of the MOCOPA and any applicable Market Procedure.

## **8. Defined Metering Points and Point of Supply**

8.1 Single-rate Whole Current Meter - where the Customer's installation directly connects with the installed Meter.

8.1.1 *Distribution Business Responsibilities:* The Distribution Business is responsible for the service cable and the cut-out.

8.1.2 *Meter Operator Responsibilities:* The Meter Operator shall install the Meter.

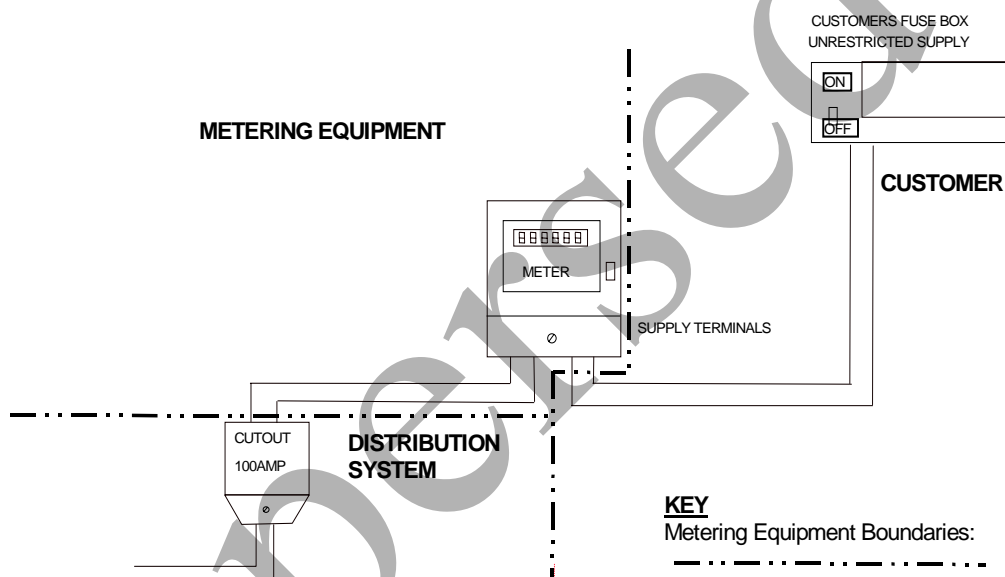
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<sup>3</sup> The Registration Authority is defined within MOCOPA.

The conductors between the cut-out and the input terminals of the Meter shall be installed by, and be the responsibility of, the Meter Operator.

The conductors between the Meter's outgoing terminals and the consumer unit will be part of the Customer's installation but the responsibility of the Meter Operator for connection.

### Single-rate Whole Current Meter



**Note:**

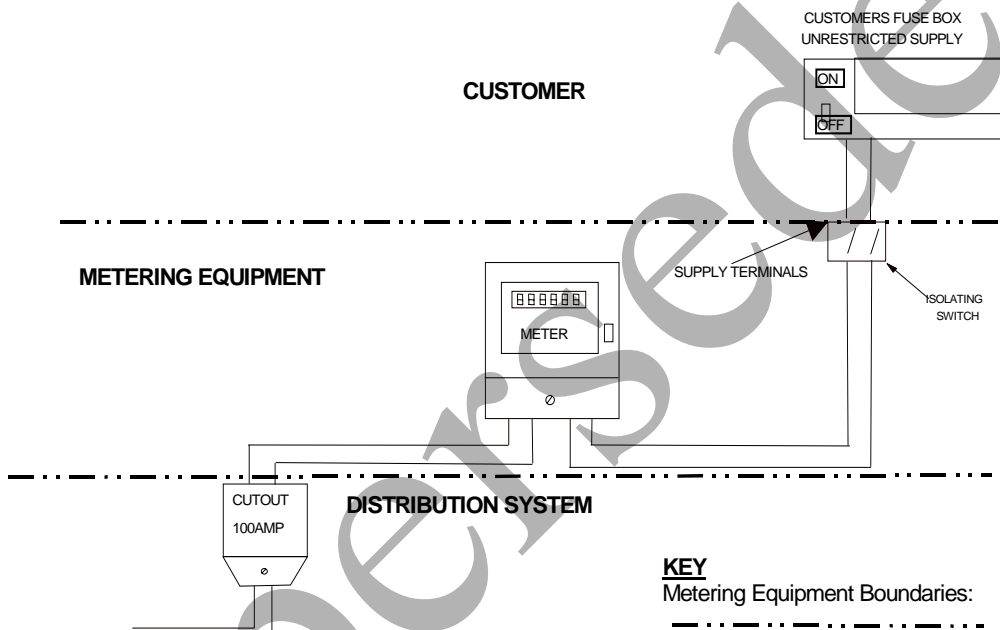
The diagrams in this section of the Metering Code of Practice are for example only. These diagrams should not be taken as definitive wiring diagrams for any installation.

8.2 Single-rate or Multi-rate Whole Current Meter - where the Customer's installation does not directly connect with the installed Meter(s).

8.2.1 *Installations with an Isolating Switch:* Where an installation has an additional Meter, timeswitch, teleswitch, or external

isolating switch, then the Meter Operator will install these items. Also, the interconnecting wiring between the items up to the last item of equipment, for example an isolating switch or Meter before the "consumer unit", would be installed and maintained by the Meter Operator. However, any wiring between the final item of equipment and the "consumer unit" would be part of the Customer's installation.

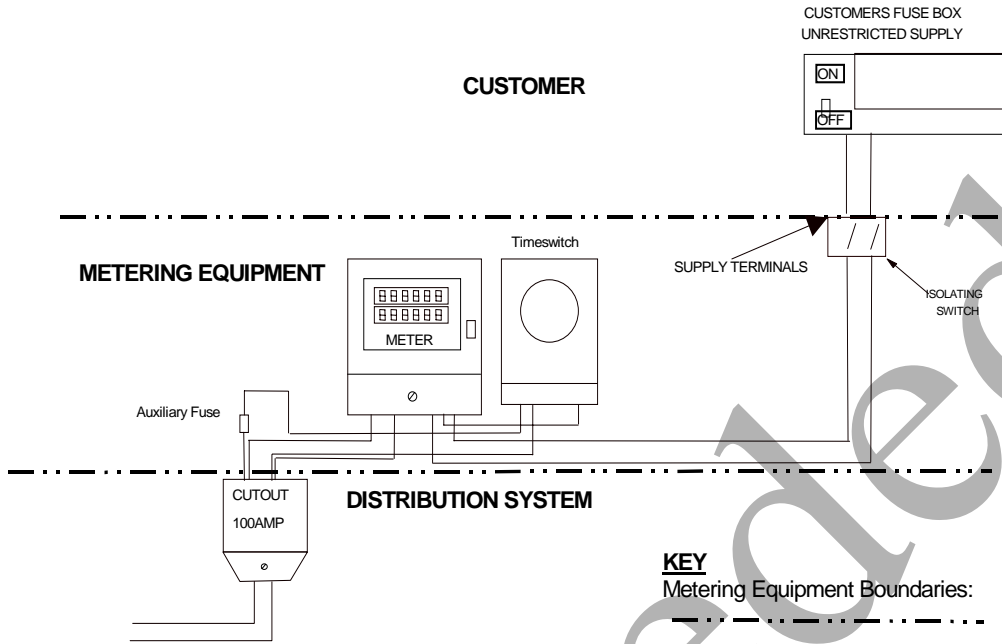
**Single-rate Whole Current Meter with Isolating Switch**



Note:

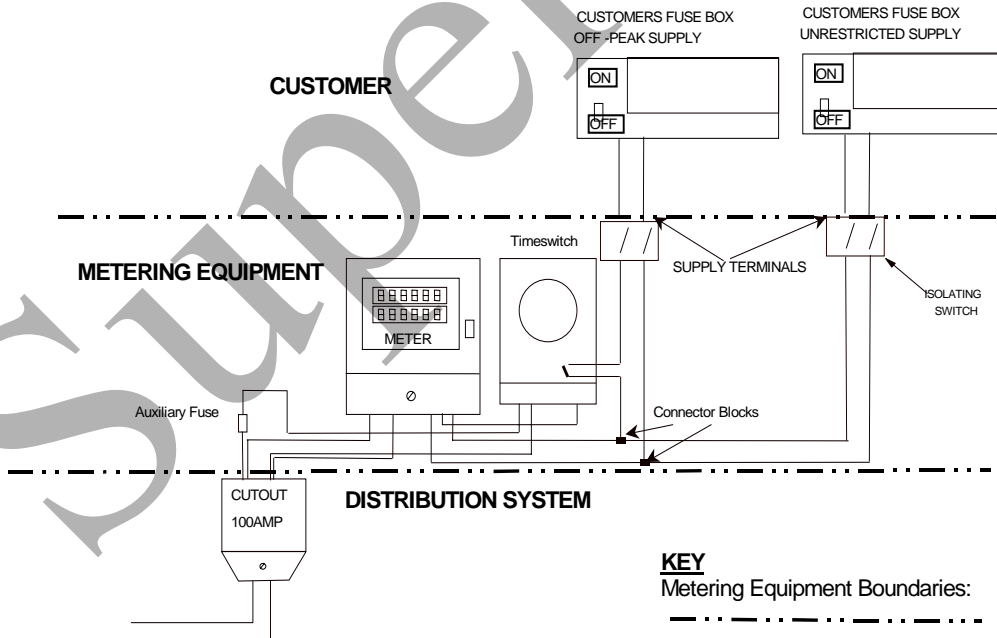
The diagrams in this section of the Metering Code of Practice are for example only. These diagrams should not be taken as definitive wiring diagrams for any installation.

**Multi-rate Whole Current Meter with Isolating Switch**



**Multi-rate Whole Current Meter with Isolating Switches and controlled Off-**

**Peak Load**





Note:

The diagrams in this section of the Metering Code of Practice are for example only. These diagrams should not be taken as definitive wiring diagrams for any installation.

### 8.3 *Other Requirements*

8.3.1 *Anti Fraud Devices:* Where considered necessary by the Supplier, anti-fraud devices such as security blocks fitted between the cut-out and the Meter, and plastic bubbles would be supplied and fitted by the Meter Operator.

8.3.2 *Outside Meter Cabinets:* An outside Meter cabinet will normally be considered the Customer's property and their responsibility to replace in the event of it being damaged.

8.3.3 *High Risers and Laterals:* Where the metering is situated within a communal metering area the risers are normally privately owned.

Where the metering is situated in the individual flats then the risers are normally owned by the Distribution Business.

### 8.4 *Current Transformer Operated Metering Equipment*

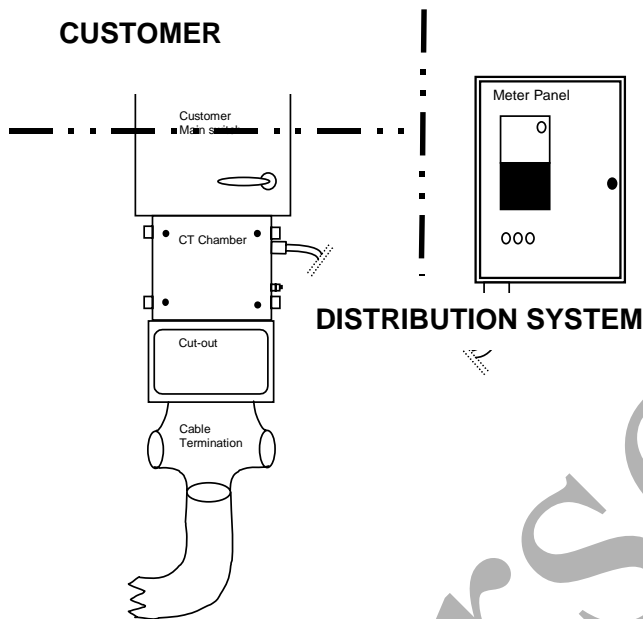
8.4.1 *Provision of Test and Isolation facilities:* For the purposes of Meter connection by the Meter Operator, the current transformers, Meter panel, associated multicore cable, test/isolating facilities and voltage fuses will be provided by the Distribution Business or a contractor nominated by the Customer.

8.4.2 *Interface between Meter Operator and Distribution Business:* In normal circumstances the Meter Operator to Distribution Business interface point will be the outgoing connections from the test/isolating facilities and the metering panel voltage fuses.

8.4.3 *Customer Cabling:* The cabling from the Distribution Business's cut-out or main fuse, through current transformers and into a Customer's main switch is the property of the

Customer. Where this cabling is provided by the Customer or his contractor, then the cabling shall be to the Distribution Business's specification.

### Current Transformer Operated Metering Equipment



Note 1:  
The Meter is not normally provided by the Distribution Business.

Note 2:  
Depending upon space availability at the Service Position, the Meter may be mounted at the CT Chamber or remotely by means of a multicore cable and provision of a separate metering panel.

Note 3:  
The CT chamber may be provided by the contractor to the Distribution Business's specification.

#### **9. Provision of Metering Equipment**

The table below is for guidance on the provision and responsibility of selected items in any particular installation.

The term Equipment Owner (EO) has been used to identify the party responsible for providing the item of Meter Equipment or associated/ancillary equipment.

Note:- Not all items in the following table will be present in all installations.

**Table defining responsibilities for various items of Metering Equipment**

<b>Item</b>	<b>Provider of equipment</b>	<b>Field work Responsibility</b>
<b>(A) All installations</b>		
Service cable	Dist. Bus.	Dist. Bus.
High Risers and Laterals	EO or Landlord	Dist. Bus.
Cut-out	Dist. Bus.	Dist. Bus.
Main fuses (cut-out fuses)	Dist. Bus.	Dist. Bus. or MO*
Circuit Breaker (or equivalent) (for larger installations)	Dist. Bus.	Dist. Bus. or MO*
Meter/telemeter	EO	MO
Timeswitch	EO	MO
Teleswitch	EO	MO
<b>(B) Whole current installations</b>		
Cables: cut-out to meter	EO	MO
Cables: from meter to Customer owned switchgear	Customer/contractor	MO* to connect
Isolating switch	EO <sup>4</sup>	MO
Connector blocks	EO	MO
Cables: between meter and other EO supplied apparatus or between other items of EO supplied apparatus	EO	MO
Revenue Protection equipment	Supplier/EO	MO
Cables: between Revenue Protection equipment and other apparatus	Supplier/EO	MO
<b>(C) Current Transformer operated installations</b>		
Current Transformers	Dist. Bus.	Dist. Bus.
Meter panel	Dist. Bus.	Dist. Bus.
Test terminal block	Dist. Bus.	Dist. Bus.
Potential fuses at source	Dist. Bus.	Dist. Bus.
Potential fuses or isolators on Meter panel	Dist. Bus.	Dist. Bus.
Additional potential fuses for Meters or other apparatus	EO	MO
Multicore and all cabling between source and meter panel	Dist. Bus.	Dist. Bus.
Cables: beyond test terminal block and potential fuses	EO	MO
Cables: cut-out (or Circuit Breaker) to Customer's mainswitch	Customer/Contractor	MO* to connect

MO\* means MO may operate this equipment under the terms of MOCOPA.

Note: Use of the table above in respect of ownership, provision, specification and ongoing maintenance of CT chambers, metering panels, isolating switches and rising mains should be confirmed with the relevant

<sup>4</sup> Ownership may transfer from the Distribution Business to the Customer.

Distribution Business. The table illustrates the typical arrangements, but cannot be relied upon as being definitive in every circumstance.

Superseded

## Appendix 1: Definitions

"Accredited Laboratory"	means the National Physical Laboratory (NPL), or a calibration laboratory that has been accredited by the National Measurement Accreditation Service (NAMAS), or an international laboratory recognised by NPL for the measurement required, or any other laboratory approved by the Director;
"Act"	means the Electricity Act 1989;
"Active Energy"	means the electrical energy produced, flowing or supplied by an electric circuit during a time interval, being the integral with respect to time of the instantaneous power, measured in units of watt-hours (Wh) and standard multiples thereof, that is 1,000 Wh = 1 kilowatt-hour (kWh) 1,000 kWh = 1 megawatt-hour (MWh) 1,000 MWh = 1 gigawatt-hour (GWh) 1,000 GWh = 1 terawatt-hour (TWh);
"Actual Metering Point"	means the physical location at which energy is metered;
"Agent"	means any person acting on behalf of a principal in performance of obligations incumbent upon a Party in terms of this Agreement;
"Agreement"	means this Agreement (including the Recitals and the Schedules) as amended, varied, supplemented, modified or suspended from time to time in accordance with the terms hereof;

"Allocation"	means the operation of the Central Allocation System;
"Amps"	means amperes;
"Associated Responsible Party"	means the Responsible Party which appointed the relevant Agent;
"Balancing and Settlement Code"	means the Agreement of that name between NGC and others to be entered into or entered into in part implement of the reforms of the Electricity Market in England and Wales permitting physical bi-lateral contracts to be entered into between Generators and Suppliers;
"Balancing and Settlement Code Company"	means Elexon Limited (registered number 03782949) a company registered in England and Wales having its registered office at 3 <sup>rd</sup> Floor, 15 Marylebone Road, London NW1 5JD (or any successor to that company);
"Bulk Supply Point" or "BSP"	means a point of supply from a Transmission System to a:- <ul style="list-style-type: none"> <li>(i) Distribution System; or</li> <li>(ii) Independent Distribution Network; or</li> <li>(iii) Grid-connected Composite Site; or</li> <li>(iv) Grid-connected Customer Site;</li> </ul>
"Certification Regulation"	means S1792 The Meters (Certification) Regulations 1990;
"Code of Practice"	means each of the codes of practice in force in England and Wales in relation to any Metering Equipment or any part or class thereof;
"Composite Site"	means a Grid-connected Generation Site

or Embedded Generation Site at which a Generator Party or Non Trading Generator:-

- (i) exports Active Energy to a Distribution System or a Transmission System; and
- (ii) imports Active Energy from a Distribution System or a Transmission System for purposes other than the generation of electrical energy;

"Co-ordinated Universal Time" or "UTC" has the same meaning as in the document Standard Frequency and Time Signal Emission, International Telecommunication Union (CRTF.4609ISBN92-61-05311-4);

"Cumulative Reading" means a record of the value indicated by the Cumulative Register at a given point in time;

"Customer" means any person supplied or requiring to be supplied with electricity at premises within the Authorised Area of Scottish Hydro-Electric or ScottishPower other than a person supplied or requiring to be supplied with electricity at a Power Station (save where such supply is to a Grid-connected Power Station connected to the Transmission System of one Host Company but with an auxiliary supply connected to the Distribution System of the other Host Company) or any person transferring electricity to or from ScottishPower's or Scottish Hydro-

	Electric's Area or Authorised Area (as appropriate) across an interconnector, in its capacity as such;
"Data Aggregation"	means the process of aggregating consumption figures received from Data Collectors;
"Data Collection"	means the retrieval, validation and processing of metering data;
"Data Collector"	means an Accredited person appointed by a Supplier, Generator Party or Host Company pursuant to Clause 25.1, Clause 39.1 or Clause 54.1, as the case may be, for the purposes of this Agreement;
"Defined Metering Point" or "DMP"	means the physical location at which the overall accuracy requirements are to be met, such physical location and accuracy requirements being as stated in the Metering Codes of Practice;
"Demand Period"	means the period over which Active Energy, Reactive Energy or Apparent Energy are integrated to produce Demand Values for Allocation purposes and unless the context otherwise requires, each Demand Period shall be of thirty (30) minutes duration one of which will finish at 2400 hours;
"Demand Value"	means, expressed in kW, kvar, kVA, twice the value of kWh, kvarh or kVAh recorded during any Demand Period, the Demand Values are Half Hour Demands identified by the end of the Demand Period;
"Derogation"	means a derogation given in terms of



	Clause 93 (Derogations);
"Distribution Licence"	means a Distribution Licence granted, (or to be treated as granted) under Section 6(1)(c) of the Act;
"Distribution System"	means a system for the distribution of electrical energy as defined in the Distribution Licence of the ScottishPower Distribution Undertaking or the Scottish and Southern Energy Distribution Undertaking;
"Embedded"	means solely connected to a Distribution System of a Host Company or Independent Distribution Network, such connection being either a direct connection or a connection via a busbar of another User;
"Export"	means:- <ul style="list-style-type: none"> <li>(i) a flow of Active Energy from a Generation Site onto the Distribution System or Transmission System; or</li> <li>(ii) a flow of Active Energy from a BSP onto the Transmission System; or</li> <li>(iii) a flow of Active Energy out of Scotland despatched by ScottishPower's Grid Control Centre</li> </ul> and "Exported" shall be construed accordingly;

"Generation Site"	means any Grid-connected or Embedded Power Station or any Grid-connected or Embedded Composite Site as the case may be;
"Generator Agent"	means any Meter Operator or Data Collector appointed by a Generator Party pursuant to Clause 54.1 (Appointment of Generation Agents);
"Grid-connected"	means directly connected to a Transmission System;
"GWh"	means gigawatt hours;
"Identifier" or "Id"	means a unique number and/or letter or, as the case may be, a unique combination of numbers and/or letters;
"Import"	means:- <ul style="list-style-type: none"> <li>(i) a flow of Active Energy to a Generation Site from the Distribution System or Transmission System; or</li> <li>(ii) a flow of Active Energy to a BSP from the Transmission System; or</li> <li>(iii) a flow of Active Energy into Scotland despatched by ScottishPower's Grid Control Centre</li> </ul> and "Imported" shall be construed accordingly;
"Interrogation Unit"	means a portable computer used by Data Collectors to extract and store information from the Outstations;
"kVA"	means kilovoltamperes;
"kVAh"	means kilovoltampere hours;

"kvar"	means kilovoltamperes reactive;
"kvarh"	means kilovoltamperes reactive hours;
"kW"	means kilowatts;
"kWh"	means kilowatt hours;
"Market Auditor"	means that person or persons appointed by Scottish Settlements to audit the operation of the market pursuant to Schedule 6 (Role of the Market Auditor);
"Market Procedure"	means each of the market procedures set out in Schedules 14 (Market Procedures for General Allocation) to 18 (Market Procedure for Accreditation and Certification) as amended, varied, supplemented, modified or suspended from time to time in accordance with the terms of this Agreement;
"Maximum Demand"	means the greatest of the Demand Values recorded during a given Meter Advance Period by Metering Equipment capable of recording Demand Values in each of the Half Hours of such charging period as may be identified by a Responsible Party;
"Meter"	means a device for measuring Active Energy and/or Reactive Energy;
"Meter Operation Code of Practice Agreement"	means an agreement between Meter Operators and Distribution Businesses governing arrangements for safety and technical competence;
"MOCOPA"	
"Meter Operator"	means a person Accredited to install, commission, maintain and energise Metering Equipment and "Meter Operation" shall be construed accordingly;

"Meter Operator Code of Practice" means Schedule 5 to the agreement between Meter Operators and Distribution

Businesses governing arrangements for safety and technical competence;

"Meter Register" means a physical device for measuring Active Energy or Reactive Energy;

"Metering Code of Practice" means each of the Scottish codes of practice relating to metering contained in Schedule 19 (Metering Codes of Practice) as amended, varied, supplemented, modified or suspended from time to time in accordance with the terms of this Agreement;

"Metering Equipment" means Meters and, where relevant, measurement transformers (voltage, current or combination units) metering protection equipment including alarms, circuitry, their associated communications equipment and Outstations, and wiring which are part of the Active Energy and/or Reactive Energy measuring and transmitting equipment for Allocation under this Agreement;

"Metering Point" means the point, determined according to the principles and guidance given at Schedule 9 to the Master Registration Agreement at which a supply (import) from a Distribution System and/or a Transmission System:-

- (i) is or is intended to be measured;
- or
- (ii) where metering equipment has been removed, was or was

intended to be measured; or  
(iii) in the case of an Unmetered Supply, is deemed to be measured under the relevant Market Procedure(s) including MP-520, where in each case such measurement is for the purposes of ascertaining the volumes allocated to that Supplier under this Agreement;

"Metering System"

means:-

- (i) in the case of a metering system at a Bulk Supply Point, Power Station, or Composite Site (but always excluding metering systems at a Composite Site which comprise an Import Register and no Export Register), physically distinct and related Commissioned Metering Equipment at or relating to a Site which measures a trade in Active and/or Reactive Energy where the Active Energy is allocated in accordance with the Rules; or
- (ii) in the case of any other metering system and, where the context requires, metering systems at Composite Sites comprising a Settlement Register, a Metering Point;

"MVA"

means Megavoltamperes;

"MW"

means Megawatts;

"MWh"

means Megawatt hours;

"Outstation"

means equipment which receives and stores data from a Meter(s) for the purpose, *inter alia*, of transfer of that metering data to a Data Collector and which may perform some processing before such transfer. This equipment may be in one or more separate units or may be integral with the Meter;

"Party"

means each person for the time being party to this Agreement whether as a Founder Signatory or pursuant to an Accession Agreement and shall include any successor(s) in title to or permitted assignee(s) of such person, but always excluding a Non Trading Generator unless expressly otherwise provided;

"Performance Assurance and Accreditation Panel"

means the body established pursuant to Clause 84.1;

"Pool"

means the electricity pool of England and Wales set up under the Pooling and Settlement Agreement as now succeeded by the trading arrangements established pursuant to the Balancing and Settlement Code;

"Power Station"

means an installation comprising one or more generating units (even where sited separately) (other than a Composite Site), owned and/or controlled by the same Generator Party or Non Trading Generator which may reasonably be considered as being managed as one power station;

<p>"Public Electricity Supplier" or "PES"</p>	<p>means the ScottishPower Distribution Undertaking or the ScottishPower Supply Undertaking or the Scottish and Southern Energy Distribution Undertaking or the Scottish and Southern Energy Supply Undertaking as the case may be as specified in Schedule 3A (ScottishPower Transfer Scheme) or Schedule 3B (Scottish and Southern Energy Transfer Scheme);</p>
<p>"Rated Measurement Current"</p>	<p>means the rated primary current of the current transformers in primary plant used for the purpose of measurement;</p>
<p>"Reactive Energy"</p>	<p>means the integral with respect to time of the Reactive Power;</p>
<p>"Reasonable and Prudent Operator"</p>	<p>means a person exercising that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances;</p>
<p>"Reconciliation Run"</p>	<p>means any second or subsequent run of the Central Allocation System carried out by the Operating Agent for a Trading Day;</p>
<p>"Reference Standard"</p>	<p>means a standard whose measurement traceability to National Standards has been verified either at an Accredited Laboratory or is directly maintained by radio communication;</p>
<p>"Reference Temperature"</p>	<p>means a stated temperature for any apparatus at which that apparatus has a</p>

"Responsible Party"

known specification. If no temperature is stated the Reference Temperature is 23°C; means:-

- (i) a Supplier in relation to a Metering System which is registered to that Supplier in the relevant PES Registration Service (and for the avoidance of doubt shall include any Metering System at any Grid-connected Customer Site, or Grid-connected Composite Site, so registered); or
- (ii) each Host Company in relation to a Metering System at a Bulk Supply Point which is registered in the relevant Bulk Supply Point Registration Service (which, for the avoidance of doubt, shall not include any Metering System at a Grid-connected Customer Site or at a Grid-connected Composite Site); or
- (iii) a Generator Party in relation to a Metering System at a Registrable Generation Site which is registered to that Generator Party in the relevant Generation Registration Service (with the exception of any Metering System at such Registrable Generation Site which is a Composite Site and which comprises an Import Register or Import Registers), or a



		Metering System comprising a Registrable Import Register registered to it in the relevant Grid-connected Power Station (Import Registers) Registration Service;
"Scottish Company"		means Scottish Hydro-Electric or ScottishPower, as appropriate and Scottish Companies means both of them;
"ScottishPower Distribution Undertaking"		shall have the meaning given to the phrase "Distribution Undertaking" in the ScottishPower Transfer Scheme;
"ScottishPower Supply Undertaking"		shall have the meaning given to the phrase "Supply Undertaking" in the ScottishPower Transfer Scheme;
"ScottishPower Transmission Undertaking"		shall have the meaning given to the phrase "Transmission Undertaking" in the ScottishPower Transfer Scheme;
"Scottish and Southern Energy Distribution Undertaking"		shall have the meaning given to the phrase "Distribution Undertaking" in the Scottish and Southern Energy Transfer Scheme;
"Scottish and Southern Energy Supply Undertaking"		shall have the meaning given to the phrase "Supply Undertaking" in the Scottish and Southern Energy Transfer Scheme;
"Scottish and Southern Energy Transmission Undertaking"		shall have the meaning given to the phrase "Transmission Undertaking" in the Scottish and Southern Energy Transfer Scheme;
"Scottish Settlements"		means Scottish Electricity Settlements Limited (registered number SC 169212) a company registered in Scotland having its

registered office at Delta House, 50 West Nile Street, Glasgow, G1 2NP or such other person as is appointed as a successor to Scottish Electricity Settlements Limited in terms of Clause 13 (Appointment of successor to Scottish Settlements);

"Settlement Date"

means the calendar date of a specific Settlement Day;

"Settlement Day" or "Trading Day"

means the period beginning on the spot time of 00.00 and ending with, but not including, the spot time of 24.00, during which Active Energy is traded at any time from and after the Effective Trading Date for an Authorised Area;

"Settlement Instation"

means a computer based system which collects or receives data on a routine basis from selected Outstation systems on behalf of any Party or its Agents;

"Site"

means:-

- (i) a Transmission System Entry Point or Exit Point; or
- (ii) a Distribution System Entry Point or Exit Point or a Bulk Supply Point;
- (iii) the point of connection of an Independent Distribution Network or a Customer to a Distribution System or a Transmission System; and
- (iv) the point of connection of two Distribution Systems;

"Standard(s)"

means any of the following: Reference

	Standards; AC/DC Transfer Standards; AC Transfer Standards; or Working Standards, as the context so requires;
"Supplier"	means a Party which:- <ul style="list-style-type: none"> <li>(i) is a Founder Supplier;</li> <li>(ii) is a supplier with an exemption under the Act;</li> <li>(iii) is a Second Tier Supplier and who was admitted as a Party in the capacity of a Supplier; or</li> <li>(iv) in accordance with Clause 6.8 has changed capacity such that it participates as a Party in the capacity of a Supplier;</li> </ul>
"Supplier Agent"	means any Meter Operator, Data Collector, Data Aggregator or Radio Teleswitch Service Access Provider appointed by a Supplier pursuant to Clause 39.1;
"System Data Provision Service"	means the system data provision service to be provided by each of the Host Companies pursuant to Clause 21 (Registration Services, System Data Provision Service and Grid Control Centres);
"Transfer Standard"	means AC/DC Transfer Standard and AC Transfer Standard;
"Transmission System"	means the system for the transmission of electricity as defined in the Transmission Licences of ScottishPower Transmission Undertaking, Scottish and Southern Energy Transmission Undertaking, NGC or, in the case of NIE, the Transmission

Licence granted to NIE pursuant to the Electricity (Northern Ireland) Order 1992; means Co-ordinated Universal Time;

"UTC"

"Working Day" or "Business Day" has the meaning given to that term in Section 64 of the Act when used in relation to England and Wales;

"Working Standard(s)" means a standard, including a complete Meter testing system, which has been verified by comparison to either a Reference Standard or a Transfer Standard, and is used for the calibration and testing of Metering Equipment.

Superseded