

**SP Distribution Ltd**

**Use of System Charging Statement**

**INDICATIVE NOTICE**

**Effective from 1st April 2013**

**Version 1.0**

This statement is in a form to be approved by the Gas and Electricity Markets Authority.

## Version Control

Version	Date	Description of version and any changes made
1	December 2012	Indicative Distribution Use of System Charges

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## 1. Introduction

- 1.1. This statement has been prepared in order to discharge SP Distribution Ltd's obligation under Standard Licence Condition 14 of our Electricity Distribution Licence. It contains information on our charges<sup>1</sup> and charging principles for use of our Distribution System. It also contains information on our Line Loss Factors.
- 1.2. The charges in this statement are calculated using the Common Distribution Charging Methodology (CDCM) for LV/HV Designated Properties and the EHV Distribution Charging Methodology (EDCM) for Designated EHV Properties for MPANs / MSIDs connected to our designated distribution services area. The application of charges to a premise can be referenced using the Line Loss Factor Class (LLFC) contained in the charge tables.
- 1.3. If you have any questions about this statement please contact us at the address shown below:
- SP Energy Networks, Regulation and Commercial  
Prenton Way  
Birkenhead, Merseyside  
CH43 3ET  
Email : [commercial@scottishpower.com](mailto:commercial@scottishpower.com)  
Telephone 0151 609 2335
- 1.4. All enquiries regarding Connection Agreements should be addressed to:
- SP Energy Networks, Regulation and Commercial  
Prenton Way  
Birkenhead, Merseyside  
CH43 3ET  
Email : [commercial@scottishpower.com](mailto:commercial@scottishpower.com)  
Telephone 0151 609 2022
- 1.5. All enquiries regarding changes to Maximum Capacities should be addressed to:
- SP Energy Networks  
New Aldertson House

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<sup>1</sup> Charges can be positive or negative.

Dove Wynd  
Strathclyde Business Park  
Bellshill  
ML4 3FF  
Email : [capacityq@scottishpower.com](mailto:capacityq@scottishpower.com)  
Telephone 0141 614 1605

- 1.6. For all other queries please contact our general enquiries telephone number 0845 273 4444.

## **2. Charge Application and Definitions**

### **Supercustomer Billing and Payment**

- 2.1. Supercustomer billing and payment applies to Metering Points registered as Non-Half Hourly (NHH) metered. The Supercustomer approach makes use of aggregated data obtained from the Supercustomer DUoS Report.
- 2.2. Invoices are calculated on a periodic basis and sent to each User, for whom SP Distribution is transporting electricity through its Distribution System. Invoices are reconciled, over a period of approximately 14 months, to ensure the cash positions of Users and SP Distribution are adjusted to reflect later and more accurate consumption figures.
- 2.3. The charges are applied on the basis of the Line Loss Factor Classes (LLFCs) assigned to the MPAN, and the units consumed within the time periods specified in this statement. All Line Loss Factor Classes (LLFCs) are assigned at the sole discretion of SP Distribution. The charges in this document are shown exclusive of VAT. Invoices take account of previous Settlement runs and include VAT.

### **Supercustomer Charges**

- 2.4. Supercustomer charges are generally billed through the following components:
  - A fixed charge - pence/MPAN/day, there will only be one fixed charge applied to each Metering Point Administration Number (MPAN) in respect of which you are registered; and
  - Unit charges - pence/kilowatt-hour (kWh), based on the active consumption/production as provided through Settlement. More than one kWh charge may be applied.
- 2.5. These charges apply to Exit/Entry Points where NHH metering is used for Settlement.
- 2.6. Users who wish to supply electricity to Customers whose Metering System is Measurement Class A and settled on Profile Classes 1 through to 8 will be allocated the relevant charge structure set out in Annex 1.
- 2.7. Identification of the appropriate charge can be made by cross reference to the LLFC.

- 2.8. Valid Settlement Profile Class/Standard Settlement Configuration/Meter Timeswitch Code (PC/SSC/MTC) combinations for these LLFCs are detailed in Market Domain Data (MDD).
- 2.9. Where an MPAN has an Invalid Settlement Combination, the 'Domestic Unrestricted' fixed and unit charge will be applied as default until the invalid combination is corrected. Where there are multiple SSC-TPR combinations, the default 'Domestic Unrestricted' fixed and unit charge will be applied.
- 2.10. The time periods for the charge rates are as specified by the SSC. To determine the appropriate charge rate for each SSC/TPR a lookup table is provided in the spreadsheet that accompanies this statement<sup>2</sup>.
- 2.11. The Domestic Off-Peak and Small Non-Domestic Off-Peak charges are supplementary to either an Unrestricted or a Two Rate charge.

#### **Site-Specific Billing and Payment**

- 2.12. Site-specific billing and payment applies to Metering Points registered as Half Hourly (HH) metered. The site-specific billing and payment approach to Use of System billing makes use of Half Hourly (HH) metering data received through Settlement.
- 2.13. Invoices are calculated on a periodic basis and sent to each User, for whom SP Distribution is transporting electricity through its Distribution System. Where an account is based on estimated data, the account shall be subject to any adjustment which may be necessary following the receipt of actual data from the User.
- 2.14. The charges are applied on the basis of the Line Loss Factor Classes (LLFCs) assigned to the MPAN (or the MSID for CVA sites), and the units consumed within the time periods specified in this statement. All Line Loss Factor Classes (LLFCs) are assigned at the sole discretion of SP Distribution. The charges in this document are shown exclusive of VAT.

#### **Site-Specific Billed Charges**

- 2.15. Site-Specific billed charges may include the following components:
- A fixed charge pence/MPAN/day;
  - A capacity charge, pence/kVA/day, for agreed Maximum Import Capacity (MIC) and/or Maximum Export Capacity (MEC);

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<sup>2</sup> SP Distribution - Schedule of charges and other tables - Version7.xlsx

- An excess capacity charge, pence/kVA/day, if a site exceeds its MIC and/or MEC;
  - Unit charges, pence/kWh, for transportation of electricity over the system; and
  - An excess reactive power charge, pence/kVArh, for each unit in excess of the reactive charge threshold.
- 2.16. These charges apply to Exit/Entry Points where HH metering, or an equivalent meter, is used for Settlement purposes.
- 2.17. Users who wish to supply electricity to Customers whose Metering System is Measurement Class C or E or CVA will be allocated the relevant charge structure dependent upon the voltage and location of the Metering Point.
- 2.18. Fixed charges are generally levied on a pence per MPAN basis.
- 2.19. LV & HV Designated Properties as calculated using the CDCM will be allocated the relevant charge structure set out in Annex 1.
- 2.20. Designated EHV Properties as calculated using the EDCM will be allocated the relevant charge structure set out in Annex 2.

#### **Time Periods for Half Hourly Metered Properties**

- 2.21. The time periods for the application of unit charges to LV & HV Designated Properties which are Half Hourly metered are as follows:
- Unit charges in the red time band apply – between 16:30 to 19:30, Mon to Fri including Bank Holidays
  - Unit charges in the amber time band apply – between 08:00 to 16:30, and 19:30 to 22:30, Mon to Fri including Bank Holidays and 16:00 to 20:00 Sat and Sun
  - Unit charges in the green time band apply – between 00:00 to 08:00 and 22:30 to 00:00, Mon to Fri including Bank Holidays, and 00:00 to 16:00 and 20:00 to 00:00 Sat and Sun
  - All times are UK clock time.

SP Distribution has not issued a notice to change the time bands.

- 2.22. The time periods for the application of unit charges to Designated EHV Properties are as follows:
- Unit charges in the super red time band apply – between 16:30 and 19:30, Mon to Fri including Bank Holidays during Nov to Feb



- All times are UK clock time.

SP Distribution has not issued a notice to change the time bands.

### **Charges for Unmetered Supplies**

2.23. Users who wish to supply electricity to Customers whose Metering System is Measurement Class B or Measurement Class D will be allocated the relevant charge structure in the Annex 1.

2.24. These charges are available to Exit Points which SP Distribution deems to be suitable as Unmetered Supplies as permitted in the Electricity (Unmetered Supply) Regulations 2001<sup>3</sup> and where operated in accordance with BSCP520<sup>4</sup>.

### **Time Periods for Half Hourly Unmetered Properties**

2.25. The time periods for the application of unit charges to connections which are pseudo HH metered are as follows:

- Unit charges in the black time band apply – between 16:30 to 19:30, Mon to Fri, November to February including Bank Holidays
- Unit charges in the yellow time band apply – between 08:00 to 16:30, and 19:30 to 22:30, Mon to Fri including Bank Holidays and 16:00 to 20:00 Sat and Sun, and between 16.30 to 19.30 Mon to Fri, March to October including Bank Holidays
- Unit charges in the green time band apply – between 00:00 to 08:00 and 22:30 to 00:00, Mon to Fri including Bank Holidays, and 00:00 to 16:00 and 20:00 to 00:00 Sat and Sun
- All times are UK clock time.

SP Distribution has not issued a notice to change the time bands.

### **Use of System Charges Out of Area**

2.26. SP Distribution does not operate networks outside its Distribution Service Area.

### **Application of Capacity Charges**

#### **Chargeable Capacity**

2.27. The Chargeable Capacity is, for each billing period, the highest of the MIC/MEC or the actual capacity, calculated as detailed below.

2.28. The MIC/MEC will be agreed with SP Distribution at the time of connection or pursuant to a later change in requirements. Following such an agreement (be it at the time of connection or later) no reduction in MIC/MEC will be allowed for a

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<sup>3</sup> The Electricity (Unmetered Supply) Regulations 2001 available from <http://www.legislation.gov.uk/ukxi/2001/3263/made>

<sup>4</sup> Balancing and Settlement Code Procedures on unmetered supplies and available from <http://www.elexon.co.uk/pages/bscps.aspx>

period of one year. In the absence of an agreement the chargeable capacity, save for error or omission, will be based on the last MIC and/or MEC previously agreed by the distributor for the relevant premises' connection. A Customer can seek to agree or vary the MIC and/or MEC by contacting SP Distribution using the contact details in paragraph 1.4.

- 2.29. Reductions to the MIC/MEC may only be permitted once in a 12 month period and no retrospective changes will be allowed. Where MIC/MEC is reduced the new lower level will be agreed with reference to the level of the Customer's maximum demand. It should be noted that where a new lower level is agreed the original capacity may not be available in the future without the need for network reinforcement and associated cost.

### **Demand Chargeable Capacity**

$$\text{Demand Chargeable Capacity} = \text{Max}(2 \times \sqrt{AI^2 + \max(RI, RE)^2}, \text{MIC})$$

Where:

AI = Import consumption in kWh

RI = Reactive import in kVAh

RE = Reactive export in kVAh

MIC = Maximum Import Capacity in kVA

- 2.30. This calculation is completed for every half hour and the maximum value from the billing period is captured.
- 2.31. Only kVAh Import and kVAh Export values occurring at times of kWh Import are used.

### **Generation Chargeable Capacity**

$$\text{Generation Chargeable Capacity} = \text{Max}(2 \times \sqrt{AE^2 + \max(RI, RE)^2}, \text{MEC})$$

Where:

AE = Export Production in kWh

RI = Reactive import in kVAh

RE = Reactive export in kVAh

MEC = Maximum Export Capacity in kVA

- 2.32. This calculation is completed for every half hour and the maximum value from the billing period is captured.
- 2.33. Only kVArh Import and kVArh Export values occurring at times of kWh Export are used.

**Standby Capacity for Additional Security on Site**

- 2.34. Where standby capacity charges are applied, the charge will be set at the same rate as that applied to normal MIC.

**Exceeded Capacity**

- 2.35. Where a Customer takes additional unauthorised capacity over and above the MIC/MEC, the excess will be classed as Exceeded Capacity. The exceeded portion of the capacity will be charged at the excess capacity charge p/kVA/day rate, based on the difference between the MIC/MEC and the actual capacity. This will be charged for the duration of the full month in which the breach occurs.

**Minimum Capacity Levels**

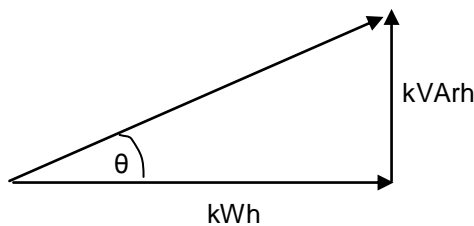
- 2.36. There is no minimum capacity threshold.

**Application of charges for excess reactive power**

- 2.37. The excess reactive power charge applies when a site’s reactive power (measured in kVArh) exceeds 33% of total active power (measured in kWh) in any half-hourly period. This threshold is equivalent to an average power factor of 0.95 during the period. Any reactive units in excess of the 33% threshold are charged at the rate appropriate to the particular charge.

- 2.38. Power Factor is calculated as follows:

$\text{Cos } \theta = \text{Power Factor}$



- 2.39. The chargeable reactive power is calculated as follows:

### Demand Chargeable Reactive Power

$$\text{Demand Chargeable kVArh} = \max \left( \max \{ \text{RI}, \text{RE} \} - \left( \sqrt{\left( \frac{1}{0.95^2} - 1 \right)} \times \text{AI} \right), 0 \right)$$

Where:

AI = Active Import in kWh

RI = Reactive Import in kVArh

RE = Reactive Export in kVArh

- 2.40. This calculation is completed for every half hour and the values summated over the billing period.
- 2.41. Only kVArh Import and kVArh Export values occurring at times of kWh Import are used.
- 2.42. The square root calculation will be to two decimal places.

### Generation Chargeable Reactive Power

$$\text{Generation Chargeable kVArh} = \max \left( \max \{ \text{RI}, \text{RE} \} - \left( \sqrt{\left( \frac{1}{0.95^2} - 1 \right)} \times \text{AE} \right), 0 \right)$$

Where:

AE = Active Export in kWh

RI = Reactive Import in kVArh

RE = Reactive Export in kVArh

- 2.43. This calculation is completed for every half hour and the values summated over the billing period.
- 2.44. Only kVArh Import and kVArh Export values occurring at times of kWh Export are used.
- 2.45. The square root calculation will be to two decimal places.

### Provision of billing data

- 2.46. Where HH metering data is required for Use of System charging and this is not provided through Settlement processes, such metering data shall be provided by the User of the system to SP Distribution in respect of each calendar month within 5 working days of the end of that calendar month. The metering data shall identify the amount consumed and/or produced in each half hour of each

day and shall separately identify active and reactive import and export. Metering data provided to the Company shall be consistent with that received through the metering equipment installed. Metering data shall be provided in an electronic format specified by SP Distribution from time to time and in the absence of such specification, metering data shall be provided in a comma separated text file in the format of D0036 MRA data flow (as agreed with SP Distribution). The data shall be e-mailed to <mailto:uosadministrators2@scottishpower.com>

- 2.47. SP Distribution requires reactive consumption or production to be provided for all Measurement Class C (mandatory HH metered) sites and for Measurement Class E (elective HH metered sites). SP Distribution reserves the right to levy a charge on Users who fail to provide such reactive data. [In order to estimate missing reactive data, a Power Factor of 0.9 lag will be applied to the active consumption in any half hour.

#### **Licensed Distributor Network Operator (LDNO) charges**

- 2.48. LDNO charges are applied to LDNOs who operate Embedded Networks within SP Distribution's area.
- 2.49. The charge structure for LV and HV Designated Properties end users embedded in Networks operated by LDNOs will mirror the structure of the 'all-the-way' charge and is dependent upon the voltage of connection of each Embedded Network to the Host DNO's network. The same charge elements will apply as those that match the LDNO's end Customer charges.
- 2.50. Where an MPAN has an Invalid Settlement Combination, the 'LDNO HV: Domestic Unrestricted' fixed and unit charge will be applied as default until the invalid combination is corrected. Where there are multiple SSC-TPR combinations, the default 'LDNO HV: Domestic Unrestricted' fixed and unit charge will be applied. The charge structure for Designated EHV Properties end-users embedded in Networks operated by LDNOs will be calculated individually using the EDCM.
- 2.51. For Nested Networks the Host DNO charges (or pays) the Nested LDNO on the basis of discounted charges for the voltage of connection of the Intermediate LDNO to the Host DNO, irrespective of the connection of the Nested LDNO to the Intermediate LDNO. Additional arrangements might exist between the

Nested LDNO and the Intermediate LDNO; these arrangements are not covered in this statement.

### **3. Schedule of Charges for use of the Distribution System**

- 3.1. Tables listing the charges for the distribution of electricity under use of system are published in annexes of this document.
- 3.2. These charges are also listed in a spreadsheet which is published with this statement and can be downloaded from <http://www.scottishpower.com/ConnectionsUseMetering.htm> .
- 3.3. Annex 1 contains charges to LV and HV Designated Properties.
- 3.4. Annex 2 contains the charges to Designated EHV Properties and charges applied to LDNOs with Designated EHV Properties/end-users embedded in Networks within SP Distribution area.
- 3.5. Annex 3 contains details of any preserved and additional charges that are valid at this time. Preserved charges are mapped to an appropriate charge and are closed to new Customers. .
- 3.6. Annex 4 contains the charges applied to LDNOs with LV and HV Designated Properties end users embedded in Networks within SP Distribution area.

## **4. Schedule of Line Loss Factors**

### **Role of Line Loss Factors in the Supply of Electricity**

- 4.1. Electricity entering or exiting the DNOs' networks is adjusted to take account of energy which is lost<sup>5</sup> as it is distributed through the network.
- 4.2. This adjustment is made to ensure that energy bought or sold by a User, from/to a Customer, accounts for energy lost as part of distributing energy to and from the Customer's premises.
- 4.3. DNOs are responsible for calculating the Line Loss Factors (LLFs) and providing these factors to Elexon. Elexon manage the Balancing and Settlement Code. The code covers the governance and rules for the balancing and settlement arrangements.
- 4.4. Annex 5 provides the LLFs which must be used to adjust the Metering System volumes to take account of losses on the Distribution Network.

### **Calculation of Line Loss Factors**

- 4.5. LLFs are calculated in accordance with BSC Procedure (BSCP) 128. BSCP 128 determines the principles which DNOs must comply with when calculating LLFs.
- 4.6. LLFs are either calculated using a generic method or a site specific method. The generic method is used for sites connected at LV or HV and the site specific method is used for sites connected at EHV or where a request for site specific LLFs has been agreed. Generic LLFs will be applied to all new EHV sites until sufficient data is available for a site specific calculation.
- 4.7. The Elexon website (<http://www.elexon.co.uk/pages/losses.aspx>) contains more information on LLFs. This page also has links to BSCP 128 and to our LLF methodology.

### **Line Loss Factor time periods**

- 4.8. LLFs are calculated for a set number of time periods during the year. These time periods are detailed in Annex 5.

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<sup>5</sup> Energy can be lost for technical and non-technical reasons and losses normally occur by heat dissipation through power flowing in conductors and transformers. Losses can also reduce if a customer's action reduces power flowing in the distribution network. This might happen when a customer generates electricity and the produced energy is consumed locally.

### **Line Loss Factor tables**

- 4.9. When using the LLF tables in Annex 5 reference should be made to the LLFC allocated to the MPAN to find the appropriate LLF.
- 4.10. The Elexon Portal website, <https://www.bsccentralservices.com/>, contains the LLFs in standard industry data format (D0265). A user guide with details on registering and using the portal can be downloaded from <https://www.bsccentralservices.com/index.php/userguide/download>.



## **5. Notes for Designated EHV Properties**

### **EDCM network group costs**

- 5.1. The table in Annex 6 shows the un-scaled /network group costs used to calculate the current EDCM charges.
- 5.2. These are illustrative of the modelled costs at the time that this statement was published. A new connection will result in changes to current network utilisations which will then form the basis of future prices, i.e. the charge determined in this statement will not necessarily be the charge in subsequent years because of the interaction between new and existing network connections.

### **Charges for New Designated EHV Properties**

- 5.3. When new Designated EHV Properties, that are not already included in the charging statement, are energised after publication of charging statements an addendum to the current statement will be issued incorporating the appropriate charges for the new site.
- 5.4. The form of the addendum is detailed in Annex 7 of this statement.
- 5.5. The addendum will be sent to DCUSA parties and published as a revised "Schedule of Charges and other tables" spreadsheet on our website. The addendum will include charge information that under enduring circumstances would be found in Annex 2 and line loss factors that would normally be found in Annex 5.
- 5.6. The new Designated EHV Properties charges will be added to Annex 2 in the next full statement released.

### **Demand Side Management**

- 5.7. For those premises where use of system is charged under the EDCM, some customers may be able to benefit from entering into a Demand Side Management ("DSM") Agreement with SP Distribution.
- 5.8. The DSM Agreement will be based upon a contractual commitment by the customer to materially reduce their MIC in certain time periods (which shall be determined by SP Distribution) in return for reduced Use of System Charges. Where a DSM Agreement is entered into, the applicable demand capacity costs will be based on the MIC minus the capacity subject to interruption.

- 5.9. EDCM customers wishing further details and/or wishing to enquire whether they can take advantage of a DSM Agreement should contact in the first instance:

The Distribution Policy Team

Regulation & Commercial

SP Distribution Ltd

Dove Wynd

Strathclyde Business Park

Bellshill

ML4 3FF

Email: [commercial@sppowersystem.com](mailto:commercial@sppowersystem.com)

Telephone: 0141 614 0008

Fax: 0141 614 1663

## **6. Electricity Distribution Rebates**

- 6.1. SP Distribution has neither given nor announced any distribution use of system rebates to Users in the 12 months preceding the date of publication of this revision of the statement.

## **7. Accounting and Administration Services**

None.

## **8. Charges for electrical plant provided ancillary to the grant of Use of System**

None.

## 9. Glossary of Terms

9.1. The following definitions are included to aid understanding:

Term	Definition
Balancing and Settlement Code (BSC)	The Balancing and Settlement Code contains the governance arrangements for electricity balancing and settlement in Great Britain. An over view document is available from " <a href="http://www.elexon.co.uk/ELEXON/Documents/trading_arrangements.pdf">www.elexon.co.uk/ELEXON Documents/trading_arrangements.pdf</a> ".
CDCM	The Common Distribution Charging Methodology used for calculating charges to Designated Properties as required by standard licence condition 13A of the Electricity Distribution Licence.
Customer	A person to whom a User proposes to supply, or for the time being supplies, electricity through an Exit Point, or from whom, a User or any relevant exempt Supplier, is entitled to recover charges, compensation or an account of profits in respect of electricity supplied through an Exit Point. Or A person from whom a User purchases, or proposes to purchase, electricity, at an Entry Point (who may from time to time be supplied with electricity as a Customer of that User (or another electricity supplier) through an Exit Point).
CVA	Central volume allocation in accordance with the BSC.
Designated EHV Properties	As defined in standard condition 13B of the Electricity Distribution Licence.
Designated Properties	As defined in standard condition 13A of the Electricity Distribution Licence.
Distributed Generator	A generator directly connected or embedded within the Distribution System.
Distribution Connection and Use of System Agreement (DCUSA)	The Distribution Connection and Use of System Agreement (DCUSA) is a multi-party contract between the licensed electricity distributors, suppliers and generators of Great Britain. It is a requirement that all licensed electricity distributors and suppliers become parties to the DCUSA.
Electricity Distribution Licence	The Electricity Distribution Licence granted or treated as granted pursuant to section 6(1) of the Electricity Act 1989.
Distribution Network Operator (DNO)	An Electricity Distributor who operates one of the fourteen Distribution Services Areas and in whose Electricity Distribution Licence the requirements of Section B of the standard conditions of that licence have effect.
Distribution Services Area	The area specified by the Authority that a DNO as Distribution Services Provider will operate.

<b>Term</b>	<b>Definition</b>
Distribution Services Provider	An Electricity Distributor in whose Electricity Distribution Licence the requirements of Section B of the standard conditions of that licence have effect.
Distribution System	The system consisting (wholly or mainly) of: <ul style="list-style-type: none"> <li>• electric lines owned or operated by an authorised distributor that is used for the distribution of electricity from grid supply points or generation sets or other Entry Points to the points of delivery to Customers or Users; or</li> <li>• any transmission licensee in its capacity as operator of that licensee's transmission system or the GB transmission system;</li> <li>• and includes any remote transmission assets (owned by a transmission licensee within England and Wales) that are operated by that authorised distributor and any electrical plant, electricity meters, and Metering Equipment owned or operated by it in connection with the distribution of electricity, but does not include any part of the GB transmission system.</li> </ul>
EDCM	The EHV Distribution Charging Methodology used for calculating charges to Designated EHV Properties as required by standard licence condition 13B of the Electricity Distribution Licence..
Electricity Distributor	Any person who is authorised by an Electricity Distribution Licence to distribute electricity.
Embedded LDNO	This refers to an LDNO operating a distribution network which is embedded within another distribution network.
Embedded Network	An electricity Distribution System operated by an LDNO and embedded within another distribution network.
Entry Point	A boundary point at which electricity is exported onto a Distribution System to a connected installation or to another Distribution System, not forming part of the total system ( boundary point and total system having the meaning given to those terms in the BSC)
Exit Point	A point of connection at which a supply of electricity may flow from the Distribution System to the Customer's Installation or User's Installation or the Distribution System of another person.
Extra High Voltage (EHV)	Nominal voltages of 22kV and above.
Gas and Electricity Markets Authority (GEMA) (the Authority)	As established by the Utilities Act.
Grid Supply Point	A metered connection between the National Grid Electricity Transmission (NGET) system and The licensee's Distribution System at which electricity flows to or from the Distribution System.

<b>Term</b>	<b>Definition</b>
GSP Group	Grid Supply Point Group; a distinct electrical system, that is supplied from one or more Grid Supply Points for which total supply into the GSP Group can be determined for each half-hour.
High Voltage (HV)	Nominal voltages of at least 1kV and less than 22kV
Host DNO	A distribution network operator that is responsible for a Distribution Services Area as defined in Standard conditions of the Electricity Distribution Licence
Intermediate LDNO	An embedded licenced distribution network operator that is responsible for a Distribution System between a Host DNO and another Embedded Distribution System.
Invalid Settlement Combination	A Settlement combination that is not recognised as a valid combination in Market Domain Data. <a href="http://mddonline.elexon.co.uk/default.aspx">http://mddonline.elexon.co.uk/default.aspx</a>
kVA	Kilovolt amperes
kVArh	Kilovolt ampere reactive hour
kW	Kilowatt
kWh	Kilowatt hour (equivalent to one "unit" of electricity)
LDNO	Licensed Distribution Network Operator.
Line Loss Factor Class (LLFC)	An identifier assigned to an SVA Metering System which is used to assign the LLF and Use of System Charges.
Line Loss Factor (LLF)	The factor which is used in Settlement to adjust the Metering System volumes to take account of losses on the Distribution System.
Low Voltage (LV)	Nominal voltages below 1kV
Market Domain Data (MDD)	Market Domain Data is a central repository of reference data used by all Users involved in Settlement. It is essential to the operation of Supplier Volume Allocation (SVA) Trading Arrangements.
Maximum Export Capacity (MEC)	The Maximum Export Capacity of apparent power expressed in kVA that has been agreed can flow through the Entry Point to the Distribution System from the Customer's installation as specified in the connection agreement.
Maximum Import Capacity (MIC)	The Maximum Import Capacity of apparent power expressed in kVA that has been agreed can flow through the Exit Point from the Distribution System to the Customer's installation as specified in the connection agreement.

<b>Term</b>	<b>Definition</b>
Measurement Class	A classification of Metering Systems which indicates how Consumption is measured i.e. Non Half Hourly Metering Equipment (equivalent to Measurement Class "A") Non Half Hourly Unmetered Supplies (equivalent to Measurement Class "B") Half Hourly Metering Equipment at above 100kW Premises (equivalent to Measurement Class "C") Half Hourly Unmetered Supplies (equivalent to Measurement Class "D") Half Hourly Metering Equipment at below 100kW Premises (equivalent to Measurement Class "E").
Metering Point	The point at which electricity is exported to or imported from the licensee's Distribution System is measured, is deemed to be measured, or is intended to be measured and which is registered pursuant to the provisions of the MRA. (For the purposes of this statement Grid Supply Points are not 'Metering Points')
Metering System	Particular commissioned metering equipment installed for the purposes of measuring the quantities of Exports and Imports at the Boundary Point.
MPAN	Metering Point Administration Number. A number relating to a Metering Point under the MRA.
MRA	The Master Registration Agreement.
MTC	Meter Timeswitch Codes (MTCs) are three digit codes allowing Suppliers to identify the metering installed in Customers' premises. They indicate whether the meter is single or multi rate, pre-payment or credit, or whether it is 'related' to another meter.
Nested LDNO	A distribution system operator that is responsible for a Nested Network.
Nested Networks	This refers to a situation where there is more than one level of Embedded Network and therefore nested distribution systems between LDNOs (e.g. Host DNO→intermediate LDNO→nested LDNO→Customer).
Ofgem	Office of Gas and Electricity Markets – Ofgem is governed by GEMA and is responsible for the regulation of the distribution companies.
Profile Class (PC)	A categorisation applied to NHH MPANs and used in Settlement to group customers with similar consumption patterns to enable the calculation of consumption profiles.
Settlement	The determination and settlement of amounts payable in respect of charges (including reconciling charges) in accordance with the Balancing and Settlement Code
Settlement Class (SC)	The combination of Profile Class, Line Loss Factor Class, Time Pattern Regime and Standard Settlement Configuration, by Supplier within GSP Group and used for Settlement.

<b>Term</b>	<b>Definition</b>
Standard Settlement Configuration (SSC)	A standard metering configuration relating to a specific combination of TPRs.
Supercustomer	The method of billing Users for Use of System on an aggregated basis, grouping consumption and standing charges for all similar NHH metered Customers together.
Supercustomer DUoS Report	A report of profiled data by Settlement Class providing counts of MPANs and units consumed.
Supplier	An organisation with a Supply License which can register itself as supplying electricity to a Metering Point.
Supplier Volume Allocation (SVA)	As defined in the Balancing and Settlement Code.
Supplier Volume Allocation Agent (SVAA)	The agency which uses aggregated consumption data from the Data Aggregator to calculate Supplier purchases by Settlement Class for each Settlement day, and then passes this information to the relevant distributors and Suppliers across the national data transfer network.
Time Pattern Regime (TPR)	The pattern of switching behaviour though time that one or more meter registers follow.
Use of System Charges	Charges for demand and generation Customers which are connected to and utilising the distribution network.
User/s	Someone who has a use of system agreement with the DNO e.g. A Supplier, Generator or LDNO.



## Annex 1 - Schedule of Charges for use of the Distribution System by LV and HV Designated Properties

SP Distribution - Effective from April 2013 - Indicative LV/HV Charges										
	Open LLFCs	PCs	Unit rate 1 p/kWh	Unit rate 2 p/kWh	Unit rate 3 p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Reactive power charge p/kVArh	Excess Capacity charge (p/kVA)	Closed LLFCs
Domestic Unrestricted	100, 101, 110, 111, 160, 161	1	2.370			4.47				
Domestic Two Rate	114, 115, 118, 119, 120, 121,	2	3.049	0.371		4.47				
Domestic Off Peak (related MPAN)	112, 113, 116, 117, 132, 133,	2	0.253			.				130, 134, 135
Small Non Domestic Unrestricted	201, 204	3	2.053			5.68				200, 202, 203, 205
Small Non Domestic Two Rate	221, 224, 260	4	2.769	0.402		5.68				220, 222
Small Non Domestic Off Peak (related MPAN)	225, 240, 241, 301, 302	4	0.818			.				223, 242, 243, 244, 245, 246
LV Medium Non-Domestic	400, 402	5-8	1.664	0.261		28.58				
LV Sub Medium Non-Domestic	404	5-8	1.360	0.193		.				
LV HH Metered	500, 504		9.218	0.772	0.159	22.04	2.25	0.273	2.25	
LV Sub HH Metered	506, 507		7.967	0.522	0.040	7.78	4.20	0.215	4.20	
HV HH Metered	501, 505		6.250	0.410	0.031	117.78	4.56	0.160	4.56	
NHH UMS category A	900, 904, 908, 909	8	1.424							
NHH UMS category B	901, 905	1	1.910							
NHH UMS category C	902, 906	1	3.078							
NHH UMS category D	903, 907	1	1.046							
LV UMS (Pseudo HH Metered)	910		22.453	1.011	0.591					
LV Generation NHH	781, 782, 783, 784, 785	8	( 0.694)							
LV Sub Generation NHH	602	8	( 0.610)							
LV Generation Intermittent	603, 608		( 0.694)					0.147		
LV Generation Non-Intermittent	604, 607		( 4.498)	( 0.519)	( 0.173)			0.147		
LV Sub Generation Intermittent	609		( 0.610)					0.132		
LV Sub Generation Non-Intermittent	610		( 4.100)	( 0.442)	( 0.137)			0.132		
HV Generation Intermittent	611, 612		( 0.359)			86.00		0.109		
HV Generation Non-Intermittent	605, 606		( 3.054)	( 0.200)	( 0.015)	86.00		0.109		

## Annex 2 - Schedule of Charges for use of the Distribution System by Designated EHV Properties (including LDNOs with Designated EHV Properties/end-users).

SP Distribution - Effective from April 2013 - Indicative EDCM Charges												
Import LLFC - Unique Identifier	Export LLFC - Unique Identifier	Import MPANs / MSIDs	Export MPANs / MSIDs	Name	Import super-red unit rate (p/kWh)	Import fixed charge (p/day)	Import capacity rate (p/kVA/day)	Import exceeded capacity rate (p/kVA/day)	Export super-red unit rate (p/kWh)	Export fixed charge p/day	Export capacity rate (p/kVA/day)	Export exceeded capacity rate (p/kVA/day)
801	MSID	1800060004220	MSID 8182	Minsca		412.89						
802	683			Bankend Rig		165.22	3.80	3.80		3,712.58	0.39	0.39
803	684			Barlockhart Moor		195.80	1.89	1.89		4,122.45	0.39	0.39
804	685			Blantyre Muir		268.92	0.70	0.70		4,237.62	0.39	0.39
805	693	1800060587850	1800060587869	Hunterston WF		72.22	0.73	0.73		5,712.69	0.39	0.39
806	688			Middleton Farm		27.59	1.90	1.90		4,137.91	0.39	0.39
807	689			Neilston Community		103.69	1.92	1.92		4,894.91	0.39	0.39
808	681	1800053653870	1800053653880	Garlaff Landfill		116.04	0.70	0.70				
809	629	1800054992968	1800054992977	Hagshaw Hill Extension		549.27	1.26	1.26		13,870.94	0.39	0.39
810	694			Pogbie WF		115.40	0.70	0.70		3,583.54	0.39	0.39
811	671	1800060328035	1800060328044	Muirhall		261.19	1.88	1.88		6,268.45	0.39	0.39
812	672	1800060372113	1800060372122	Burnfoot		1,509.06	0.69	0.69		4,676.47	0.39	0.39
813	690			Westfield WF		46.42	0.72	0.72		5,453.92	0.39	0.39
814	691			Barmoor WF		146.06	1.90	1.90		14,606.22	0.39	0.39
815	692			Nutberry Windfarm		407.69	1.91	1.91		9,262.43	0.39	0.39
816	695			Carcrough WF		119.38	0.73	0.73		6,426.77	0.39	0.39
817				Magnox		283.09	0.91	0.91				
818	700			West Browncastle WF		352.07	0.83	0.83		23,995.69	0.39	0.39
820	620	1800060289486	1800060289510	Craigengelt		115.56	0.90	0.90		15,785.15	0.39	0.39
821	621	1800054865132	1800054865141	Greenknowes		475.21	0.74	0.74		28,512.85	0.39	0.39
825	625	1800060159192	1800060159208	Aikengall		1,234.31				28,398.56	0.39	0.39
826	626	1800053646251	1800053646260	Hagshaw Hill		42.69	2.48	2.48				
827	627	1800053646190	1800053646206	Gallow Rig		148.89	1.89	1.89				
828	628	1800053646172	1800053646181	Polwhat Rig		177.10	1.88	1.88				
829	624	1800054738267	1800054738276	Greendykeside		40.62	1.94	1.94		2,851.03	0.39	0.39
830	630	1800053647237	1800053647246	Dun Law		37.12	1.91	1.91				
831	631	1800053647194	1800053647200	EPR Scotland Ltd		78.51	1.98	1.98				
832	632	1800053648027	1800053648036	Bowbeat (Emly Bank)		50.88	1.89	1.89				
833	633	1800053648045	1800053648054	Bowbeat (Roughsidehill)		35.51	1.90	1.90				
834	634	1800053647380	1800053647399	Harehill		35.39	1.90	1.90				
835	635	1800053647618	1800053647627	Shanks & McEwan 3&4		125.40	1.90	1.90				
836	636	1800053647636	1800053647645	Shanks & McEwan 5		7.79	2.06	2.06				
883	636	1800053647742	1800053647751	Shanks & McEwan 6		22.52	1.87	1.87				
837	637	1800053653843	1800053653852	Crystal Rig		181.60	0.69	0.69				
838	638	1800053694167	1800053694440	Hauptland Muir (Ardrossan)		7.77	0.78	0.78		163.11	0.39	0.39
839	639	1800053950949	1800053950958	Wetherhill		1,083.71						
840	640	1800053434271	1800053883993	Artfield		778.70						
841	641	1800054152982	1800054152991	Wardlaw Wood		89.54	1.96	1.96				
842	642	1800054198365	1800054198374	Earlsburn		677.57						
843	643	1800054244570	1800054244598	Blackhill		1,492.60				17,332.51	0.39	0.39
844	MSID	1800054451603	MSID 8183	Dalswinton		498.57	0.73	0.73				
845	645	1800054498470	1800054498480	Steven's Croft Biomass		4,861.17	0.81	0.81				
850	650	1800060251872	1800060251881	Longpark		697.22				15,681.39	0.39	0.39
851		1800035140431		BOC		5,717.81	1.91	1.91				

852	696			C Calder Water WF		156.78	0.74	0.74		21,259.29	0.39	0.39
853		1800035234188		Babcock Thorn		20,712.10	2.04	2.04				
854	654	1800035261359	1800053946507	Lafarge UK		12,953.46	2.61	2.61				
855	655	1800060241304	1800060241313	Pateshill		17.36	1.90	1.90		972.27	0.39	0.39
856		1800035239460		Clydeport		26,026.28	1.57	1.57				
857		1800035313389		Freescala		8,166.48	1.31	1.31				
858		1800035327257		Tesco		722.45	1.59	1.59				
859		1800035320127		GlaxoSmithKline		29,753.60	1.97	1.97				
861		1800035324780		Weir Pumps		1,303.16	4.61	4.61				
862		1800035317453		Dupont (UK) Ltd		76,496.17	2.24	2.24				
863	663	1800060207438	1800060207447	North Rhins		226.46	1.89	1.89		6,806.23	0.39	0.39
864	698			Tod Hills Windfarm		57.51	1.61	1.61		6,318.77	0.39	0.39
866		1800051523646		Avecia	1.556	7,539.18	10.11	10.11				
867		1800035325436		Norbord		15,243.14	1.19	1.19				
873	673	1800060450481	1800060450490	Millour Hill		153.89	0.78	0.78		11,391.61	0.39	0.39
874	674	1800060441380	1800060441399	Glenkerie		292.77	2.46	2.46		11,341.36	0.39	0.39
875	675	1800060450524	1800060450533	Kelburn (A)		135.02	1.90	1.90		6,745.22	0.39	0.39
876	676	1800060450542	1800060450551	Kelburn (B)		135.02	1.90	1.90		6,745.22	0.39	0.39
877	677			Little Raith		148.20	0.70	0.70		4,075.58	0.39	0.39
878	678			Drone Hill		389.90	0.74	0.74		20,110.54	0.39	0.39
880	701			Earlseat WF		59.71	2.93	2.93		9,286.85	0.39	0.39
884	679			Ardoch & Over Enoch WF		70.70	0.75	0.75		8,380.49	0.39	0.39
885	697			GlaxoSmithKline WF		19.26	1.92	1.92		821.94	0.39	0.39
886	686			Sneddon Law WF		746.73	0.78	0.78		44,793.93	0.39	0.39
MSID 8334	MSID 8334	MSID 8334	MSID 8334	Markinch		6,959.48	1.55	1.55	( 1.040)	12,459.71	0.39	0.39
MSID 8083		MSID 8083		Dumbarton			3.18	3.18				
MSID 8085		MSID 8085		Stirling Road			1.38	1.38				
310		1800036579036		Magco		612.96	6.10	6.10				
311		1800035324497		Stirling University	0.165	612.96	6.28	6.28				
312		1800035324530		Glenochil Distillery		612.96	5.51	5.51				
313		1800053648310		Longannet Power Station		612.96	9.86	9.86				
314		1800035327674		Cameron Ironworks	0.740	612.96	4.17	4.17				
315		1800035313398		Shin-Etsu		15,600.52	2.29	2.29				
316		1800035344100		United Biscuits		612.96	4.92	4.92				
317		1800035337724		Scottish Enterprise		10,708.98	14.32	14.32				
318		1800035337584		Balfours		612.96	1.09	1.09				
319		1800035331634		NB Distillery		612.96	2.84	2.84				
320		1800035340220		Finnart BP		16,983.61	1.57	1.57				
321		1800035346589		Texas Instruments		1,225.92	4.60	4.60				
322		1800035346817		Glasgow Airport		612.96	7.56	7.56				
323		1800035326848		BP Dalmeny		12,122.48	1.80	1.80				
324		1800035334227		Edinburgh Dock North		4,246.96	1.69	1.69				
325		1800035346551		IBM		612.96	2.46	2.46				
326	755	1800053646215	1800053646224	Bonnington Power Station	2.246	5.52	3.61	3.61	( 2.689)	607.44	0.39	0.39
327		1800053648338		SGB Lurgie		5,706.05	2.49	2.49				
328	750			Cathkin						3,367.59	0.39	0.39
329				New Glasgow South Hospital		7,819.82	3.69	3.69				
330	752			Torrence WF		64.20	1.43	1.43		5,479.95	0.39	0.39
331	754			Scottish Enterprise (Samsung WTTf)		209.88	1.41	1.41		7,734.13	0.39	0.39

## Annex 3 - Schedule of Charges for use of the Distribution System to Preserved/Additional LLFC Classes

SP Distribution - Effective from April 2013 - Indicative LV/HV Tariffs									
NHH Preserved Charges/Additional LLFC Classes									
	Closed LLFCs	PCs	Unit rate 1 p/kWh	Unit rate 2 p/kWh	Unit rate 3 p/kWh	Fixed charge p/MPAN/day			
Domestic Off Peak (related MPAN)	130, 134, 135	2	0.253						
Small Non Domestic Unrestricted	200, 202, 203, 205	3	2.053			5.68			
Small Non Domestic Two Rate	220, 222	4	2.769	0.402		5.68			
Small Non Domestic Off Peak (related MPAN)	223, 242, 243, 244,	4	0.818						
HV Medium Non-Domestic	401	5-8	1.003	0.059		338.10			
Notes:	<p>Unit time periods are as specified in the SSC.</p> <p>SP Distribution uses a default tariff for invalid settlement combinations these will be charged at the Domestic Unrestricted Rates.</p> <p>The Domestic and Non-Domestic Off Peak (related MPAN) tariffs are supplementary to a standard published tariff and therefore only available under these conditions.</p> <p>Preserved tariffs are only available to existing supplies, subject to certain conditions:</p> <p>a) Suppliers may not normally transfer a meter point from one preserved tariff to another preserved tariff;</p> <p>b) If a supply under a preserved tariff should cease, other than on change of tenancy, the preserved tariff may not normally be restored;</p> <p>c) Any additional load required to be supplied on the preserved tariff must be within the existing supply capacity.</p>								
HH Preserved Charges/Additional LLFC Classes									
	Closed LLFCs	PCs	Unit rate 1 p/kWh	Unit rate 2 p/kWh	Unit rate 3 p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Reactive power charge p/kVAh	Excess Capacity charge (p/kVA)
HV Sub Generation Non-Intermittent	614		( 2.542)	( 0.167)	( 0.013)	86.00		0.061	
HV Sub Generation Intermittent	613		( 0.299)			86.00		0.061	
Notes:	<p><b>Time Periods</b></p> <p>The time periods for each unit rate where applicable area as follow s:</p> <p>Unit charges in the red time band apply – between 16:30 to 19:30, Mon to Fri including Bank Holidays</p> <p>Unit charges in the amber time band apply – between 08:00 to 16:30 and 19:30 to 22:30, Mon to Fri including Bank Holidays and 16:00 to 20:00 Sat and Sun</p> <p>Unit charges in the green time band apply – between 00:00 to 08:00 and 22:30 to 00:00, Mon to Fri including Bank Holidays, and 00:00 to 16:00 and 20:00 to 00:00 Sat and Sun</p> <p>All times are UK clock-time.</p> <p>Preserved tariffs are only available to existing supplies, subject to certain conditions:</p>								

## Annex 4 - Charges applied to LDNOs with HV/LV end users

SP Distribution - Effective from April 2013 - Indicative LDNO Tariffs									
	Unique billing identifier	PCs	Unit rate 1 p/kWh	Unit rate 2 p/kWh	Unit rate 3 p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Reactive power charge p/kVAh	Excess capacity charge (p/kVA)
LDNO LV: Domestic Unrestricted		1	1.576			2.97			
LDNO LV: Domestic Two Rate		2	2.027	0.247		2.97			
LDNO LV: Domestic Off Peak (related MPAN)		2	0.168						
LDNO LV: Small Non Domestic Unrestricted		3	1.365			3.78			
LDNO LV: Small Non Domestic Two Rate		4	1.841	0.267		3.78			
LDNO LV: Small Non Domestic Off Peak (related MPAN)		4	0.544						
LDNO LV: LV Medium Non-Domestic		5-8	1.106	0.174		19.00			
LDNO LV: LV HH Metered		0	6.128	0.513	0.106	14.65	1.50	0.181	1.50
LDNO LV: NHH UMS category A		8	0.947						
LDNO LV: NHH UMS category B		1	1.270						
LDNO LV: NHH UMS category C		1	2.046						
LDNO LV: NHH UMS category D		1	0.695						
LDNO LV: LV UMS (Pseudo HH Metered)		0	14.927	0.672	0.393				
LDNO LV: LV Generation NHH		8	( 0.694)						
LDNO LV: LV Generation Intermittent		0	( 0.694)					0.147	
LDNO LV: LV Generation Non-Intermittent		0	( 4.498)	( 0.519)	( 0.173)			0.147	
LDNO HV: Domestic Unrestricted		1	0.855			1.61			
LDNO HV: Domestic Two Rate		2	1.100	0.134		1.61			
LDNO HV: Domestic Off Peak (related MPAN)		2	0.091						
LDNO HV: Small Non Domestic Unrestricted		3	0.741			2.05			
LDNO HV: Small Non Domestic Two Rate		4	0.999	0.145		2.05			
LDNO HV: Small Non Domestic Off Peak (related MPAN)		4	0.295						
LDNO HV: LV Medium Non-Domestic		5-8	0.600	0.094		10.31			
LDNO HV: LV HH Metered		0	3.325	0.278	0.057	7.95	0.81	0.098	0.81
LDNO HV: LV Sub HH Metered		0	4.546	0.298	0.023	4.44	2.40	0.123	2.40
LDNO HV: HV HH Metered		0	4.047	0.266	0.020	76.27	2.95	0.104	2.95
LDNO HV: NHH UMS category A		8	0.514						
LDNO HV: NHH UMS category B		1	0.689						
LDNO HV: NHH UMS category C		1	1.110						
LDNO HV: NHH UMS category D		1	0.377						
LDNO HV: LV UMS (Pseudo HH Metered)		0	8.099	0.365	0.213				
LDNO HV: LV Generation NHH		8	( 0.694)						
LDNO HV: LV Sub Generation NHH		8	( 0.610)						
LDNO HV: LV Generation Intermittent		0	( 0.694)					0.147	
LDNO HV: LV Generation Non-Intermittent		0	( 4.498)	( 0.519)	( 0.173)			0.147	
LDNO HV: LV Sub Generation Intermittent		0	( 0.610)					0.132	
LDNO HV: LV Sub Generation Non-Intermittent		0	( 4.100)	( 0.442)	( 0.137)			0.132	
LDNO HV: HV Generation Intermittent		0	( 0.359)					0.109	
LDNO HV: HV Generation Non-Intermittent		0	( 3.054)	( 0.200)	( 0.015)			0.109	

LDNO HVplus: Domestic Unrestricted		1	0.570			1.07			
LDNO HVplus: Domestic Two Rate		2	0.733	0.089		1.07			
LDNO HVplus: Domestic Off Peak (related MPAN)		2	0.061						
LDNO HVplus: Small Non Domestic Unrestricted		3	0.494			1.37			
LDNO HVplus: Small Non Domestic Two Rate		4	0.666	0.097		1.37			
LDNO HVplus: Small Non Domestic Off Peak (related MPAN)		4	0.197						
LDNO HVplus: LV Medium Non-Domestic		5-8	0.400	0.063		6.87			
LDNO HVplus: LV Sub Medium Non-Domestic			0.517	0.073					
LDNO HVplus: HV Medium Non-Domestic			0.433	0.025		145.96			
LDNO HVplus: LV HH Metered		0	2.217	0.186	0.038	5.30	0.54	0.066	0.54
LDNO HVplus: LV Sub HH Metered		0	3.031	0.199	0.015	2.96	1.60	0.082	1.60
LDNO HVplus: HV HH Metered		0	2.698	0.177	0.013	50.85	1.97	0.069	1.97
LDNO HVplus: NHH UMS category A		8	0.342						
LDNO HVplus: NHH UMS category B		1	0.459						
LDNO HVplus: NHH UMS category C		1	0.740						
LDNO HVplus: NHH UMS category D		1	0.252						
LDNO HVplus: LV UMS (Pseudo HH Metered)		0	5.399	0.243	0.142				
LDNO HVplus: LV Generation NHH		8	( 0.264)						
LDNO HVplus: LV Sub Generation NHH		8	( 0.263)						
LDNO HVplus: LV Generation Intermittent		0	( 0.264)					0.056	
LDNO HVplus: LV Generation Non-Intermittent		0	( 1.711)	( 0.197)	( 0.066)			0.056	
LDNO HVplus: LV Sub Generation Intermittent		0	( 0.263)					0.057	
LDNO HVplus: LV Sub Generation Non-Intermittent		0	( 1.770)	( 0.191)	( 0.059)			0.057	
LDNO HVplus: HV Generation Intermittent		0	( 0.359)			86.00		0.109	
LDNO HVplus: HV Generation Non-Intermittent		0	( 3.054)	( 0.200)	( 0.015)	86.00		0.109	
LDNO EHV: Domestic Unrestricted		1	0.263			0.50			
LDNO EHV: Domestic Two Rate		2	0.338	0.041		0.50			
LDNO EHV: Domestic Off Peak (related MPAN)		2	0.028						
LDNO EHV: Small Non Domestic Unrestricted		3	0.227			0.63			
LDNO EHV: Small Non Domestic Two Rate		4	0.307	0.045		0.63			
LDNO EHV: Small Non Domestic Off Peak (related MPAN)		4	0.091						
LDNO EHV: LV Medium Non-Domestic		5-8	0.184	0.029		3.17			
LDNO EHV: LV Sub Medium Non-Domestic			0.238	0.034					
LDNO EHV: HV Medium Non-Domestic			0.199	0.012		67.24			
LDNO EHV: LV HH Metered		0	1.021	0.086	0.018	2.44	0.25	0.030	0.54
LDNO EHV: LV Sub HH Metered		0	1.396	0.091	0.007	1.36	0.74	0.038	1.60
LDNO EHV: HV HH Metered		0	1.243	0.082	0.006	23.42	0.91	0.032	1.97
LDNO EHV: NHH UMS category A		8	0.158						
LDNO EHV: NHH UMS category B		1	0.212						
LDNO EHV: NHH UMS category C		1	0.341						
LDNO EHV: NHH UMS category D		1	0.116						
LDNO EHV: LV UMS (Pseudo HH Metered)		0	2.487	0.112	0.065				

LDNO EHV: LV Generation NHH		8	( 0.122)						
LDNO EHV: LV Sub Generation NHH		8	( 0.121)						
LDNO EHV: LV Generation Intermittent		0	( 0.122)					0.026	
LDNO EHV: LV Generation Non-Intermittent		0	( 0.788)	( 0.091)	( 0.030)			0.026	
LDNO EHV: LV Sub Generation Intermittent		0	( 0.121)					0.026	
LDNO EHV: LV Sub Generation Non-Intermittent		0	( 0.815)	( 0.088)	( 0.027)			0.026	
LDNO EHV: HV Generation Intermittent		0	( 0.165)			39.62		0.050	
LDNO EHV: HV Generation Non-Intermittent		0	( 1.407)	( 0.092)	( 0.007)	39.62		0.050	
LDNO 132kV/EHV: Domestic Unrestricted		1	.						
LDNO 132kV/EHV: Domestic Two Rate		2	.						
LDNO 132kV/EHV: Domestic Off Peak (related MPAN)		2	.						
LDNO 132kV/EHV: Small Non Domestic Unrestricted		3	.						
LDNO 132kV/EHV: Small Non Domestic Two Rate		4	.						
LDNO 132kV/EHV: Small Non Domestic Off Peak (related MPAN)		4	.						
LDNO 132kV/EHV: LV Medium Non-Domestic		5-8	.						
LDNO 132kV/EHV: LV Sub Medium Non-Domestic			.	.	.	.	.	.	.
LDNO 132kV/EHV: HV Medium Non-Domestic			.	.	.	.	.	.	.
LDNO 132kV/EHV: LV HH Metered		0	.	.	.	.	.	.	.
LDNO 132kV/EHV: LV Sub HH Metered		0	.	.	.	.	.	.	.
LDNO 132kV/EHV: HV HH Metered		0	.	.	.	.	.	.	.
LDNO 132kV/EHV: NHH UMS category A		8	.						
LDNO 132kV/EHV: NHH UMS category B		1	.						
LDNO 132kV/EHV: NHH UMS category C		1	.						
LDNO 132kV/EHV: NHH UMS category D		1	.						
LDNO 132kV/EHV: LV UMS (Pseudo HH Metered)		0	.	.	.	.	.	.	.
LDNO 132kV/EHV: LV Generation NHH		8	.						
LDNO 132kV/EHV: LV Sub Generation NHH		8	.						
LDNO 132kV/EHV: LV Generation Intermittent		0	.						
LDNO 132kV/EHV: LV Generation Non-Intermittent		0	.	.	.	.	.	.	.
LDNO 132kV/EHV: LV Sub Generation Intermittent		0	.						
LDNO 132kV/EHV: LV Sub Generation Non-Intermittent		0	.	.	.	.	.	.	.
LDNO 132kV/EHV: HV Generation Intermittent		0	.						
LDNO 132kV/EHV: HV Generation Non-Intermittent		0	.	.	.	.	.	.	.
LDNO 132kV: Domestic Unrestricted		1	.						
LDNO 132kV: Domestic Two Rate		2	.						
LDNO 132kV: Domestic Off Peak (related MPAN)		2	.						
LDNO 132kV: Small Non Domestic Unrestricted		3	.						
LDNO 132kV: Small Non Domestic Two Rate		4	.						
LDNO 132kV: Small Non Domestic Off Peak (related MPAN)		4	.						
LDNO 132kV: LV Medium Non-Domestic		5-8	.						
LDNO 132kV: LV Sub Medium Non-Domestic			.	.	.	.	.	.	.
LDNO 132kV: HV Medium Non-Domestic			.	.	.	.	.	.	.
LDNO 132kV: LV HH Metered		0	.	.	.	.	.	.	.
LDNO 132kV: LV Sub HH Metered		0	.	.	.	.	.	.	.
LDNO 132kV: HV HH Metered		0	.	.	.	.	.	.	.
LDNO 132kV: NHH UMS category A		8	.						
LDNO 132kV: NHH UMS category B		1	.						
LDNO 132kV: NHH UMS category C		1	.						
LDNO 132kV: NHH UMS category D		1	.						
LDNO 132kV: LV UMS (Pseudo HH Metered)		0	.	.	.	.	.	.	.
LDNO 132kV: LV Generation NHH		8	.						
LDNO 132kV: LV Sub Generation NHH		8	.						
LDNO 132kV: LV Generation Intermittent		0	.						
LDNO 132kV: LV Generation Non-Intermittent		0	.	.	.	.	.	.	.
LDNO 132kV: LV Sub Generation Intermittent		0	.						

LDNO 132kV: LV Sub Generation Non-Intermittent		0	.	.	.	.	.	.	.
LDNO 132kV: HV Generation Intermittent		0	.	.	.	.	.	.	.
LDNO 132kV: HV Generation Non-Intermittent		0	.	.	.	.	.	.	.
LDNO 0000: Domestic Unrestricted		1	.	.	.	.	.	.	.
LDNO 0000: Domestic Two Rate		2	.	.	.	.	.	.	.
LDNO 0000: Domestic Off Peak (related MPAN)		2	.	.	.	.	.	.	.
LDNO 0000: Small Non Domestic Unrestricted		3	.	.	.	.	.	.	.
LDNO 0000: Small Non Domestic Two Rate		4	.	.	.	.	.	.	.
LDNO 0000: Small Non Domestic Off Peak (related MPAN)		4	.	.	.	.	.	.	.
LDNO 0000: LV Medium Non-Domestic		5-8	.	.	.	.	.	.	.
LDNO 0000: LV Sub Medium Non-Domestic			.	.	.	.	.	.	.
LDNO 0000: HV Medium Non-Domestic			.	.	.	.	.	.	.
LDNO 0000: LV HH Metered		0	.	.	.	.	.	.	.
LDNO 0000: LV Sub HH Metered		0	.	.	.	.	.	.	.
LDNO 0000: HV HH Metered		0	.	.	.	.	.	.	.
LDNO 0000: NHH UMS category A		8	.	.	.	.	.	.	.
LDNO 0000: NHH UMS category B		1	.	.	.	.	.	.	.
LDNO 0000: NHH UMS category C		1	.	.	.	.	.	.	.
LDNO 0000: NHH UMS category D		1	.	.	.	.	.	.	.
LDNO 0000: LV UMS (Pseudo HH Metered)		0	.	.	.	.	.	.	.
LDNO 0000: LV Generation NHH		8	.	.	.	.	.	.	.
LDNO 0000: LV Sub Generation NHH		8	.	.	.	.	.	.	.
LDNO 0000: LV Generation Intermittent		0	.	.	.	.	.	.	.
LDNO 0000: LV Generation Non-Intermittent		0	.	.	.	.	.	.	.
LDNO 0000: LV Sub Generation Intermittent		0	.	.	.	.	.	.	.
LDNO 0000: LV Sub Generation Non-Intermittent		0	.	.	.	.	.	.	.
LDNO 0000: HV Generation Intermittent		0	.	.	.	.	.	.	.
LDNO 0000: HV Generation Non-Intermittent		0	.	.	.	.	.	.	.



## Annex 5 – Schedule of Line Loss Factors

SP Distribution - Effective from April 2013 - Indicative LLF Time Periods					
Time periods	Period 1	Period 2	Period 3	Period 4	
Monday to Friday Apr - Oct and Mar	23:30 – 07:30	07:30 – 23:30			
Monday to Friday Nov to Feb	23:30 – 07:30	20:00 – 23:30	07:30 – 16:00 19:00 – 20:00	16:00 – 19:00	
Saturday and Sunday All Year	23:30 – 07:30	07:30 – 23:30			
Notes	All the above times are in UK Clock time				
<b>Generic Demand and Generation LLFs</b>					
Metered voltage, respective periods and associated LLFCs					
Metered Voltage	Period 1	Period 2	Period 3	Period 4	Associated LLFC
Low Voltage NHH	1.079	1.09	1.103	1.117	100, 101, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 130, 132, 133, 134, 135, 136, 137, 160, 161, 162, 163, 164, 165, 166, 200, 201, 202, 203, 204, 205, 220, 221, 222, 223, 224, 225, 240, 241, 242, 243, 244, 245, 246, 260, 400, 402, 404, 602, 604, 607, 781, 782, 783, 784, 785, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909
Low Voltage HH	1.078	1.089	1.103	1.116	500, 504, 506, 507, 603, 608, 609, 610, 910
High Voltage Network	1.024	1.027	1.031	1.034	301, 302, 401, 501, 505, 508, 509, 605, 606, 611, 612, 613, 614
High Voltage Substation	1.024	1.027	1.031	1.034	310 to 340 inclusive
33kV Generic (demand)	1.003	1.004	1.005	1.006	
33kV Generic (generation)	1.000	1.000	1.000	1.000	
132kV Generic (demand)					
132kV Generic (generation)					

EHV Site Specific LLFs					
Demand					
Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC
Minsca	1.000	1.000	1.000	1.000	801
Bankend Rig	1.003	1.004	1.005	1.006	802
Barlockhart Moor	1.003	1.004	1.005	1.006	803
Blantyre Muir	1.003	1.004	1.005	1.006	804
Hunterston WF	1.003	1.004	1.005	1.006	805
Middleton Farm	1.003	1.004	1.005	1.006	806
Neilston Community	1.003	1.004	1.005	1.006	807
Garlaff Landfill	1.003	1.004	1.005	1.006	808
Hagshaw Hill Extension	1.000	1.000	1.000	1.000	809
Pogbie WF	1.003	1.004	1.005	1.006	810
Muirhall Windfarm	1.003	1.004	1.005	1.006	811
Burnfoot Windfarm	1.003	1.004	1.005	1.006	812
Westfield WF	1.003	1.004	1.005	1.006	813
Barmoor WF	1.003	1.004	1.005	1.006	814
Nutberry Windfarm	1.003	1.004	1.005	1.006	815
Carcreugh WF	1.003	1.004	1.005	1.006	816
Magnox	1.003	1.004	1.005	1.006	817
West Browncastle WF	1.003	1.004	1.005	1.006	818
Caigengelt	1.000	1.000	1.000	1.000	820
Greenknowes Windfarm	1.000	1.000	1.000	1.000	821
Aikengall Windfarm	1.000	1.000	1.000	1.000	825
Hagshaw Hill	1.012	1.017	1.020	1.023	826
Gallow Rig	1.036	1.043	1.048	1.053	827
Polwat Rig	1.036	1.043	1.048	1.053	828
Greendykeside Windfarm	1.001	1.001	1.001	1.001	829
Dun Law Wind Farm	1.006	1.008	1.010	1.011	830
EPR Chicken Litter	1.000	1.000	1.000	1.000	831
Bowbeat Emly Bank	1.025	1.036	1.043	1.051	832
Bowbeat Roughsidehill	1.025	1.035	1.043	1.050	833
Harehill	1.036	1.043	1.048	1.053	834
Shanks & McEwan 3 & 4	1.001	1.001	1.001	1.001	835
Shanks & McEwan 5	1.001	1.001	1.001	1.001	836
Shanks & McEwan 6	1.001	1.001	1.001	1.001	883
Crystal Rig	1.000	1.000	1.000	1.000	837
Hauptlandmuir	1.000	1.000	1.000	1.000	838
Wetherhill	1.028	1.040	1.048	1.055	839
Artfield Fell	1.000	1.000	1.000	1.000	840
Wardlaw Wood Windfarm	1.021	1.029	1.035	1.040	841
Earlsburn Windfarm	1.000	1.000	1.000	1.001	842
Black Hill Windfarm	1.037	1.054	1.066	1.077	843
Dalswinton	1.000	1.000	1.000	1.000	844
Stevens Croft Power Station	1.000	1.001	1.001	1.002	845
Longpark Windfarm	1.000	1.000	1.000	1.000	850
BOC	1.002	1.002	1.002	1.002	851
Calder WF	1.003	1.004	1.005	1.006	852
Babcock Thorn	1.002	1.002	1.003	1.003	853

Blue Circle	1.036	1.004	1.004	1.004	854
Pates Hill	1.000	1.000	1.000	1.000	855
Clydeport	1.000	1.000	1.000	1.000	856
Freescale	1.000	1.000	1.000	1.000	857
Tesco	1.000	1.000	1.000	1.000	858
GlaxoSmithKline	1.010	1.011	1.011	1.011	859
Weir Pumps	1.003	1.004	1.005	1.006	861
Dupont	1.024	1.027	1.031	1.034	862
Tod Hills Windfarm	1.003	1.004	1.005	1.006	863
North Rhines	1.000	1.000	1.000	1.000	863
Avecia	1.024	1.027	1.031	1.034	866
Norbord	1.024	1.027	1.031	1.034	867
Millour Hill	1.003	1.004	1.005	1.006	873
Glenkerie	1.003	1.004	1.005	1.006	874
Kelburn A	1.003	1.004	1.005	1.006	875
Kelburn B	1.003	1.004	1.005	1.006	876
Little Raith	1.003	1.004	1.005	1.006	877
Drone Hill	1.003	1.004	1.005	1.006	878
Earlseat WF	1.003	1.004	1.005	1.006	880
Ardoch & Over Enoch WF	1.003	1.004	1.005	1.006	884
GlaxoSmithKline WF	1.003	1.004	1.005	1.006	885
Sneddon Law WF	1.003	1.004	1.005	1.006	886
Dumbarton	1.000	1.000	1.000	1.000	MSID 8083
Stirling Rd	1.000	1.000	1.000	1.000	MSID 8085
Markinch	1.003	1.004	1.005	1.006	MSID 8334

EHV Site Specific LLFs					
Generation					
Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC
Craigengelt	0.998	0.998	0.997	0.996	620
Greenknowes Windfarm	0.991	0.991	0.989	0.988	621
Greendykeside Windfarm	0.999	0.999	0.998	0.999	624
Aikengall Windfarm	0.996	0.996	0.996	0.996	625
Hagshaw Hill	1.001	1.005	1.006	1.008	626
Gallow Rig	1.020	1.026	1.027	1.029	627
Polwhat Rig	1.020	1.026	1.026	1.027	628
Hagshaw Hill Extension	0.995	0.995	0.994	0.993	629
Dun Law Wind Farm	0.984	0.984	0.985	0.987	630
EPR Chicken Litter	0.998	0.998	0.998	0.998	631
Bowbeat Emly Bank	1.007	1.016	1.019	1.024	632
Bowbeat Roughsidehill	1.004	1.013	1.016	1.021	633
Harehill	1.015	1.019	1.026	1.031	634
Shanks & McEwan 3 & 4	0.996	0.996	0.996	0.996	635
Shanks & McEwan 5 & 6	0.997	0.997	0.996	0.996	636
Crystal Rig	1.000	1.000	1.000	1.000	637
Hauptlandmuir (& Extension)	0.995	0.995	0.994	0.994	638
Wetherhill Windfarm	1.000	1.010	1.010	1.013	639
Artfield Fell Windfarm	1.000	1.000	1.000	1.000	640
Wardlaw Wood Windfarm	0.997	1.007	1.008	1.013	641
Earlsburn Windfarm	0.989	0.990	0.987	0.986	642
Black Hill Windfarm	1.010	1.024	1.027	1.037	643
Stevens Croft Power Station	0.984	0.984	0.987	0.987	645
Longpark	1.000	1.000	1.000	1.000	650
Lafarge Cement (Blue Circle)	1.036	1.004	1.004	1.004	654
Pateshill	1.000	1.000	1.000	1.000	655
North Rhinns	1.000	1.000	1.000	1.000	663
Muirhall Windfarm	1.000	1.000	1.000	1.000	671
Burnfoot Windfarm	1.000	1.000	1.000	1.000	672
Millour Hill	1.000	1.000	1.000	1.000	673
Glenkerie	1.000	1.000	1.000	1.000	674
Kelburn A	1.000	1.000	1.000	1.000	675
Kelburn B	1.000	1.000	1.000	1.000	676
Little Raith	1.000	1.000	1.000	1.000	677
Drone Hill	1.000	1.000	1.000	1.000	678
Ardoch & Over Enoch WF	1.000	1.000	1.000	1.000	679
Garlaff	1.000	1.000	1.000	1.000	681
Tesco	1.000	1.000	1.000	1.000	682
Bankend Rig	1.000	1.000	1.000	1.000	683
Barlochart Moor	1.000	1.000	1.000	1.000	684
Blantyre Muir	1.000	1.000	1.000	1.000	685
Sneddon Law WF	1.000	1.000	1.000	1.000	686
Middleton Farm	1.000	1.000	1.000	1.000	688
Neilston Community	1.000	1.000	1.000	1.000	689
Westfield WF	1.000	1.000	1.000	1.000	690
Barmoor WF	1.000	1.000	1.000	1.000	691
Nutberry Windfarm	1.000	1.000	1.000	1.000	692

Hunterston WF	1.000	1.000	1.000	1.000	693
Pogbie WF	1.000	1.000	1.000	1.000	694
Carcreugh WF	1.000	1.000	1.000	1.000	695
Calder Water WF	1.000	1.000	1.000	1.000	696
GlaxoSmithKline WF	1.000	1.000	1.000	1.000	697
Tod Hills Windfarm	1.000	1.000	1.000	1.000	698
West Browncastle WF	1.000	1.000	1.000	1.000	700
Earlseat WF	1.000	1.000	1.000	1.000	701
Minsca	0.991	0.990	0.990	0.990	MSID 8182
Dalswinton	0.997	0.997	0.996	0.996	MSID 8183
Markinch	1.000	1.000	1.000	1.000	MSID 8334

## **Annex 6 - Un-scaled network group costs**

The un-scaled FCP network group locational charges can be found in the Schedule of Charges from our website:

<http://www.scottishpower.com/ConnectionsUseMetering.htm> .

**Annex 7 – Addendum to charging statement detailing Charges for New Designated EHV Properties**