



Scottish Hydro Electric Power Distribution plc

Use of System Charging Statement for its

Embedded Distribution Networks

NOTICE OF CHARGES

Effective from 1<sup>st</sup> April 2020

Version 1.1

The form of this statement was  
approved by the Gas and Electricity  
Markets Authority on 29 March 2019

## Version Control

Version	Date	Description of version and any changes made
V 1.0	01/04/2020	SHEPD EDN DUoS Charges Final April 2020 (LC14 format)
V 1.1	01/04/2020 revised February 2020	Annex 1 – Addition of new generic LLFCs Annex 5 – Updated generic and site specific LLFC/MSID and LLFs as per the 2020/21 approved LLFs
		Annex 4 – The LDNO HV Demand tariffs have been updated in compliance with Ofgem’s direction published 13-02-20. Details of the direction can be found at <a href="https://www.ofgem.gov.uk/publications-and-updates/decision-grant-derogations-all-distribution-network-operators-distribution-use-system-charges-202021">https://www.ofgem.gov.uk/publications-and-updates/decision-grant-derogations-all-distribution-network-operators-distribution-use-system-charges-202021</a> No other tariffs are affected by this change.

A change-marked version of this statement can be provided upon request.

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# 1. Introduction

- 1.1 This statement tells you about our charges and the reasons behind them. It has been prepared consistent with Standard Licence Condition 14 of our Electricity Distribution Licence. The main purpose of this statement is to provide our schedule of charges<sup>1</sup> for the use of our Embedded Networks and to provide the schedule of Line Loss Factors<sup>2</sup> that should be applied in Settlement to account for distribution losses. We have also included guidance notes in Appendix 2 to help improve your understanding of the charges we apply.
- 1.2 This statement has been prepared in order to discharge Scottish Hydro Electric Power Distribution plc's ("SHEPD") obligation under Standard Licence Condition 14 of our Electricity Distribution Licence. It contains information on our charges<sup>3</sup> and charging principles for use of our Embedded Networks. It also contains information on our Line Loss Factors. To comply with the terms of Clause 19.1 of the DCUSA, this Statement will be provided to Users (as defined in the DCUSA) not later than 20 days prior to implementation of the charges set out in this Statement.
- 1.3 Within this statement we use terms such as 'Users' and 'Customers' as well as other terms which are identified with initial capitalisation. These terms are defined in the Glossary.
- 1.4 SHEPD operates Embedded Networks within the Scottish Power Distribution Services Area (GSP Group ID: \_N). The charges for these Embedded Networks are provided in this statement.
- 1.5 The charges applicable to Low Voltage (LV) and High Voltage (HV) Properties and Extra-High Voltage (EHV) Properties in this statement have been set in accordance with the methodology described in SHEPD's Use of System Charging Methodology for its Embedded Distribution Networks. The application of charges to a premise can be referenced using the Line Loss Factor Class (LLFC) contained in the charge tables.
- 1.6 Separate charges are calculated depending on the characteristics of the connection and whether the use of the Embedded Networks is for demand or generation purposes. Where a generation connection is seen to support the Distribution System the charges will be negative and the Supplier will receive credits for exported energy.
- 1.7 The application of charges to premises can usually be referenced using the Line Loss Factor Class (LLFC) contained in the charge tables. Further information on how to identify and calculate the charge that will apply for your premises is provided in the guidance notes in Appendix 2.
- 1.8 All charges in this statement are shown exclusive of VAT. Invoices will include VAT at the applicable rate.
- 1.9 The annexes that form part of this statement are also available in spreadsheet format. This spreadsheet contains supplementary information used for charging purposes but which is not required to be provided in accordance with Standard Licence Condition 14. This spreadsheet can be downloaded from our website [www.ssen.co.uk](http://www.ssen.co.uk).

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

<sup>2</sup> Known as adjustment factors in the Distribution Licence and commonly referred to as Loss Adjustment Factors. The schedule of Line Loss Factors will be provided in a revised statement shortly after the Line Loss Factors for the relevant year have been successfully audited by Elexon.

#### Validity period

- 1.10 This charging statement is valid for services provided from the effective date stated on the front of the statement and remains valid until updated by a revised version or superseded by a statement with a later effective date.
- 1.11 When using this charging statement care should be taken to ensure that the relevant statement or statements covering the period that is of interest are used.
- 1.12 Notice of any revision to the statement will be provided to Users of our Embedded Networks. The latest statements can be downloaded from [www.ssen.co.uk](http://www.ssen.co.uk).

#### Contact details

- 1.13 If you have any questions about this statement please contact us at the address shown below:

Distribution Pricing Team  
Scottish Hydro Electric Power Distribution plc  
Inveralmond House  
200 Dunkeld Road  
Perth  
PH1 3AQ  
Email: [DistributionPricingTeam@sse.com](mailto:DistributionPricingTeam@sse.com)

- 1.14 All enquiries regarding Connection Agreements and changes to Maximum Capacities should be addressed to:  
Email: [authorised.capacity@sse.com](mailto:authorised.capacity@sse.com)
- 1.15 For all other queries please contact our general enquiries telephone number: 0800 048 3516.

## 2. Charge Application and Definitions

- 2.1 The following section details how the charges in this statement are applied and billed to Users of our Embedded Networks.
- 2.2 We utilise two billing approaches depending on the type of metering data received:
- (a) The 'Supercustomer' approach for Customers for whom we receive aggregated consumption data through Settlement; and
  - (b) The 'Site-specific' approach for Customers for whom we receive site-specific consumption data through Settlement.
- 2.3 We receive aggregated consumption data through Settlement for:
- (a) Domestic and non-domestic Customers for whom Non-Half Hourly (NHH) metering data is used in Settlement (i.e. Customers with MPANs which are registered to Measurement Class A);
  - (b) Customers which are unmetered and are not settled as pseudo Half Hourly (HH) metered (i.e. Customers with MPANs which are registered to Measurement Class B);
  - (c) Domestic Customers for whom HH metering data is used in Settlement (i.e. Customers with MPANs which are registered to Measurement Class F); and
  - (d) Non-domestic Customers for whom HH metering data is used in Settlement and which have whole current (WC) metering (i.e. Customers with MPANs which are registered to Measurement Class G).
- 2.4 We receive site specific consumption data through Settlement for:
- (a) Non-domestic Customers for whom HH metering data is used in Settlement and which have current transformer (CT) metering (i.e. Customers with MPANs which are registered to measurement class C or E); and
  - (b) Customers which are unmetered and settled as pseudo HH metered (i.e. Customers with MPANs which are registered to measurement class D).

### Supercustomer Billing and Payment

- 2.5 The Supercustomer approach makes use of aggregated data obtained from Suppliers using the 'Aggregated Distribution Use of System (DUoS) Report' data flow.
- 2.6 Invoices are calculated on a periodic basis and sent to each User for whom we transport electricity through our Embedded Networks. Invoices are reconciled, over a period of approximately 14 months to reflect later and more accurate consumption figures.
- 2.7 The charges are applied on the basis of the LLFC assigned to the MPAN, and the units consumed within the time periods specified in this statement. These time periods may not necessarily be the same as those indicated by the Time Pattern Regimes (TPRs) assigned to the Standard Settlement Configuration (SSC). All LLFCs are assigned at our sole discretion, based on the tariff application rules set out in the appropriate charging methodology or elsewhere in this statement. Please refer to the section 'Allocation of Charges' if you believe the allocated LLFC or tariff is incorrect.

### Supercustomer Charges

- 2.8 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 MPAN; and

- unit charges, pence/kilowatt-hour (kWh); more than one kWh charge may apply depending on the type of tariff for which the MPAN is registered.
- 2.9 Users who wish to supply electricity to Customers for whom we receive aggregated data through Settlement (see paragraph 2.3) will be allocated the relevant charge structure set out in Annex 1.
- 2.10 Identification of the appropriate charge can be made by cross reference to the LLFC.
- 2.11 Valid Settlement Profile Class (PC) /Standard Settlement Class (SSC) / Meter Timeswitch Code (MTC) combinations for LLFCs where the Metering System is Measurement Class A or B are detailed in Market Domain Data (MDD).
- 2.12 Where an MPAN has an invalid settlement combination, the 'Domestic Unrestricted' fixed and unit charges 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 charges will be applied for each invalid SSC/TPR combination.
- 2.13 The time periods for unit charges where the Metering System is Measurement Class A or B 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>4</sup>.
- 2.14 The time periods for unit charges where the Metering System is Measurement Class F or G are set out in the table 'Time Bands for Half Hourly Metered Properties' in Annex 1.
- 2.15 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

- 2.16 The site-specific billing and payment approach makes use of HH metering data at premises level received through Settlement.
- 2.17 Invoices are calculated on a periodic basis and sent to each User for whom we transport electricity through our Embedded Networks. Where an account is based on estimated data, the account shall be subject to any adjustment that may be necessary following the receipt of actual data from the User.
- 2.18 The charges are applied on the basis of the LLFCs assigned to the MPAN or MSID for Central Volume Allocation (CVA) sites), and the units consumed within the time periods specified in this statement. Where MPANs have not been associated, for example when multiple points of connection fed from different sources are used for a single site, the relevant number of fixed charges will be applied.
- 2.19 All LLFCs are assigned at our sole discretion, based on the tariff application rules set out in the appropriate charging methodology or elsewhere in this statement. Please refer to the section 'Allocation of Charges' if you believe the allocated LLFC or tariff is incorrect.

#### Site-Specific Billed Charges

- 2.20 Site-specific billed charges may include the following components:
- a fixed charge in pence/MPAN/day for SVA sites, or pence/MSID/day for CVA sites;
  - a capacity charge in pence/kilovolt-ampere (kVA)/day, for Maximum Import Capacity (MIC) and/or Maximum Export Capacity (MEC);
  - an exceeded capacity charge in pence/kVA/day, if a site exceeds its MIC and/or MEC;

<sup>4</sup> SHEPD Schedule of charges and other tables (Embedded Networks) April 2020\_V1.1.xlsx



- unit charges in pence/kWh, more than one kWh charge may be applied; and
- an excess reactive power charge in pence/kilovolt-ampere reactive hour (kVArh), for each unit in excess of the reactive charge threshold.

2.21 Users who wish to supply electricity to Customers for whom we receive site-specific data through Settlement (see paragraph 2.4) will be allocated the relevant charge structure dependent upon the voltage and location of the Metering Point.

2.22 For SVA sites, fixed charges are generally levied on a per MPAN per day basis. Where two or more half-hourly MPANs are located at the same point of connection, the relevant number of fixed charges will be applied. For CVA sites, fixed charges are generally levied on a pence per MSID per day basis. Where MSID(s) is shared at a site, fixed charges would apply for import and export separately. For further details and examples please refer to the MRA Schedule 8<sup>5</sup> guidance on Metering Points.

2.23 LV and HV Properties will be charged in accordance with the relevant charge structure set out in Annex 1.

2.24 For LV and HV Properties that utilise a combination of Intermittent and Non-Intermittent generation technologies metered through a single MPAN/MSID, we will allocate the tariff based on the dominant technology. The dominant technology will be the type of generation with the highest installed capacity at the premises, as evidenced in ratings contained in the Connection Agreement.

2.25 EHV Properties will be charged in accordance with the relevant charge structure set out in Annex 2.

2.26 Where LV and HV Properties or EHV Properties have more than one point of connection (as identified in the Connection Agreement) then separate charges will be applied to each point of connection.

2.27 Due to the seasonal nature of charges for Unmetered Supplies, changes between Measurement Classes B and D (or vice versa) shall not be agreed except with effect from 1<sup>st</sup> April in any charging year.

#### Time Periods

2.28 The time periods for the application of unit charges to LV and HV Properties that are HH metered are detailed in Annex 1.

2.29 The time periods for the application of unit charges to EHV Properties are detailed in Annex 2.

2.30 The time periods for the application of unit charges to Unmetered Supply Exit Points that are pseudo HH metered are detailed in Annex 1.

#### Application of Capacity Charges

2.31 The following sections explain the application of capacity charges and exceeded capacity charges.

#### Chargeable Capacity

2.32 The chargeable capacity is, for each billing period, the MIC and/or MEC as detailed below.

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<sup>5</sup> Master Registration Agreement - Schedule 8 Guidance on Metering Points <http://mrasco.com/mra-products/master-registration-agreement>

- 2.33 The MIC and/or MEC will be agreed with us 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 and/or MEC will be allowed for a 12 month period.
- 2.34 Reductions to the MIC/MEC may only be permitted once in a 12 month period. Where the MIC/MEC is reduced the new lower level will be agreed with reference to the level of the Customer's maximum import and/or export demand respectively. The new MIC/MEC will be applied from the start of the next billing period after the date that the request was received. 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 charges.
- 2.35 In the absence of an agreement, the chargeable capacity, save for error or omission, will be based on the last MIC/MEC previously agreed by us for the relevant premises' connection. A Customer can seek to agree or vary the MIC/MEC by contacting us using the contact details in section 1.

#### Exceeded Capacity

- 2.36 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 exceeded capacity charge p/kVA/day rate, based on the difference between the MIC/MEC and the actual capacity used. This will be charged for the duration of the full month in which the breach occurs.

#### Demand Exceeded Capacity

$$\text{Demand Exceeded Capacity} = \text{Max}(2 \times \sqrt{\text{AI}^2 + \max(\text{RI}, \text{RE})^2} - \text{MIC}, 0)$$

Where:

- AI = Active Import (kWh)  
 RI = Reactive Import (kVArh)  
 RE = Reactive Export (kVArh)  
 MIC = Maximum Import Capacity (kVA)

- 2.37 Only reactive import and reactive export values occurring at times of active import are used in the calculation.
- 2.38 This calculation is completed for every half hour and the maximum value from the billing period is applied.

#### Generation Exceeded Capacity

$$\text{Generation Exceeded Capacity} = \text{Max}(2 \times \sqrt{\text{AE}^2 + \max(\text{RI}, \text{RE})^2} - \text{MEC}, 0)$$

Where:

- AE = Active Export (kWh)  
 RI = Reactive Import (kVArh)  
 RE = Reactive Export (kVArh)  
 MEC = Maximum Export Capacity (kVA)

- 2.39 Only reactive import and reactive export values occurring at times of active export are used in the calculation.
- 2.40 This calculation is completed for every half hour and the maximum value from the billing period is applied.

#### Standby Capacity for Additional Security on Site

- 2.41 Where standby capacity charges are applied, the charge will be set at the same rate as that applied to the normal MIC Should a Customer's request for additional security of supply require

the provision of capacity from two different sources, we reserve the right to charge for the capacity held at each source.

#### Minimum Capacity Levels

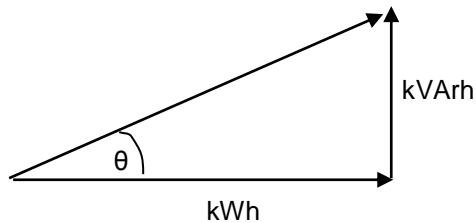
2.42 There is no minimum capacity threshold.

#### Application of charges for excess reactive power

2.43 When an individual HH metered MPAN's reactive power (measured in kVArh) at LV and HV Properties exceeds 33% of its total active power (measured in kWh), excess reactive power charges will apply. 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.

2.44 Power Factor is calculated as follows:

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



2.45 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 (kWh)

RI = Reactive Import (kVArh)

RE = Reactive Export (kVArh)

2.46 Only reactive import and reactive export values occurring at times of active import are used in the calculation.

2.47 The square root calculation will be to two decimal places.

2.48 This calculation is completed for every half hour and the values summated over the billing period.

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

#### Generation Chargeable Reactive Power

Where:

AE = Active Export (kWh)

RI = Reactive Import (kVArh)

RE = Reactive Export (kVArh)

- 2.49 Only reactive import and reactive export values occurring at times of active export are used in the calculation.
- 2.50 The square root calculation will be to two decimal places.
- 2.51 This calculation is completed for every half hour and the values summated over the billing period.

#### Allocation of Charges

- 2.52 It is our responsibility to apply the correct charges to each MPAN/MSID. The allocation of charges is based on the voltage of connection, import/export details including multiple MPANs, metering information and, for some tariffs, the metering location. Where an MPAN/MSID is used for export purposes in relation to an LV or HV Property, the type of generation (Intermittent or Non-Intermittent) also determines the allocation of charges.
- 2.53 We are responsible for deciding the voltage of connection. Generally, this is determined by where the metering is located and where responsibility for the electrical equipment transfers from us to the connected Customer.
- 2.54 The Supplier determines and provides us with the metering information and data. This enables us to allocate charges where there is more than one charge per voltage level. The metering information and data is likely to change over time if, for example, a Supplier changes from a two rate meter to a single rate meter. When we are notified this has happened we will change the allocation of charges accordingly.
- 2.55 If it has been identified that a charge has been incorrectly allocated due to the metering information and/or data then a correction request should be made to the Supplier.
- 2.56 Where it has been identified that either:
- (a) a charge is likely to be incorrectly allocated due to the voltage of connection, import/export details, or metering location; or
  - (b) a connection may be eligible for Low Voltage Substation tariff(s);
- a request to investigate the applicable charges should be made to us. Requests from persons other than the Customer or the current Supplier must be accompanied by a Letter of Authority from the Customer and the current Supplier must also acknowledge that they are aware a request has been made. Any request must be supported by an explanation of why it is believed that the current charge should be changed, along with supporting information including, where appropriate, photographs of metering positions or system diagrams. Any request to change the current charge that also includes a request for backdating must include justification as to why it is considered appropriate to backdate the change.
- 2.57 An administration charge (covering our reasonable costs) may be made if a technical assessment or site visit is required, but we will not apply any charge where we agree to the change request.
- 2.58 Where we agree that the current LLFC/charge should be changed, we will then allocate the appropriate set of charges for the connection. Any adjustment will be applied from the date of the request back to either:
- (a) the date of incorrect allocation in respect of paragraphs 2.55 or 2.56(a); or
  - (b) the date the connection first became eligible for Low Voltage Substation tariff(s) in respect of paragraph 2.56(b); or
  - (c) up to the maximum period specified by the Prescription and Limitation (Scotland) Act 1973 in Scotland, which covers a five year period;

whichever is the shorter.

- 2.59 Any credit or additional charge will be issued to the relevant Supplier(s) during the period of the change.
- 2.60 Should we reject the request a justification will be provided to the requesting Party. We shall not unreasonably withhold or delay any decision on a request to change the charges applied and would expect to confirm our position on the request within three months of the date of request.

#### Generation Charges for Pre-2005 EHV Properties

- 2.61 EHV Properties that were connected to our Embedded Networks under a pre-2005 connection charging policy are eligible for exemption from DUoS charges for generation unless one of the following criteria has been met:
- 25 years have passed since their first energisation/connection date i.e. EHV Properties with Connection Agreements dated prior to 1st April 2005, and for which 25 years has passed since their first energisation/connection date will receive DUoS charges for generation from the next charging year following the expiry of their 25 years exemption starting 1st April, or
  - the person responsible for the EHV Property has provided notice to us that they wish to opt in to DUoS charges for generation.

If a notice to opt in has been provided there will be no further opportunity to opt out.

- 2.62 Furthermore, if an exempt Customer makes an alteration to its export requirement then the Customer may be liable to be charged for the additional capacity required or energy imported or exported. For example, where a generator increases its export capacity the incremental increase in export capacity will attract DUoS charges as with other non-exempt generators.

#### Provision of billing data

- 2.63 Where HH metering data is required for DUoS charging and this is not provided in accordance with the BSC or DCUSA, such metering data shall be provided by the User of the system to us in respect of each calendar month within five working days of the end of that calendar month.
- 2.64 The metering data shall identify the amount of energy conveyed across the Metering System in each half hour of each day and shall separately identify active and reactive import and export. Metering data provided to us shall be consistent with that received through the metering equipment installed.
- 2.65 Metering data shall be provided in an electronic format specified by us 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 Master Registration Agreement (MRA) data flow D0275<sup>6</sup> (as agreed with us). The data shall be e-mailed to [duos.income.billing@sse.com](mailto:duos.income.billing@sse.com).
- 2.66 We require details of reactive power imported or exported to be provided for all Measurement Class C and E sites. It is also required for CVA sites and network boundaries with difference metering. We reserve 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 0.95 lag will be applied to the active consumption in any half hour.

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<sup>6</sup> MRA Data Transfer Catalogue available from <https://dtr.mrasco.com/>

#### Licensed Distributor Network Operator charges

- 2.67 Licensed Distribution Network Operator (LDNO) charges are applied to LDNOs who operate Embedded Networks.
- 2.68 The charge structure for LV and HV Properties reflects the Host DNO's LV and HV Properties' charges. The relevant charge structures are set out in Annex 4.
- 2.69 Where a NHH metered MPAN has an invalid Settlement combination, the 'LDNO HV: Domestic Unrestricted' fixed and unit charges 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 charges will be applied for each invalid TPR combination.
- 2.70 The charge structure for EHV Properties connected to Embedded Networks operated by us will be calculated individually and includes the Host DNO's boundary charges. The relevant charge structures are set out in Annex 2.
- 2.71 For Nested Networks the relevant charging principles set out in DCUSA Schedule 21 will apply.

#### Licence exempt distribution networks

- 2.72 The Electricity and Gas (Internal Market) Regulations 2011<sup>7</sup> introduced new obligations on owners of licence exempt distribution networks (sometimes called private networks) including a duty to facilitate access to electricity and gas Suppliers for Customers within those networks.
- 2.73 When Customers (both domestic and commercial) are located within a licence exempt distribution network and require the ability to choose their own Supplier this is called 'third party access'. These embedded Customers will require an MPAN so that they can have their electricity supplied by a Supplier of their choice.
- 2.74 Licence exempt distribution networks owners can provide third party access using either full settlement metering or the difference metering approach.

#### Full settlement metering

- 2.75 This is where a licence exempt distribution network is set up so that each embedded installation has an MPAN and Metering System and therefore all Customers purchase electricity from their chosen Supplier. In this case there are no Settlement Metering Systems at the boundary between our Embedded Network and the licence exempt distribution network.
- 2.76 In this approach our DUoS charges will be applied to each MPAN.

#### Difference metering

- 2.77 This is where one or more, but not all, Customers on a licence exempt distribution network choose their own Supplier for electricity supply to their premises. Under this approach the Customers requiring third party access on the licence exempt distribution network will have their own MPAN and must have a HH Metering System.

#### Gross settlement

- 2.78 Where one of our MPANs (prefixed by the number 17) is embedded within a licence exempt distribution network connected to our Embedded Network, and difference metering is in place for Settlement purposes and we receive gross measurement data for the boundary MPAN, we will continue to charge the boundary MPAN Supplier for use of our Embedded Network. No

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<sup>7</sup> The Electricity and Gas (Internal Market) Regulations 2011 available from <http://www.legislation.gov.uk/ukxi/2011/2704/contents/made>

charges will be levied by us directly to the Customer or Supplier of the embedded MPAN(s) connected within the licence exempt distribution network.

2.79 We require that gross metered data for the boundary of the connection is provided to us. Until a new industry data flow is introduced for the sending of such gross data, gross metered data shall:

- be provided in a text file in the format of the D0036 or D0275 MRA data flow;
- the text file shall be emailed to [duos.income.billing@sse.com](mailto:duos.income.billing@sse.com);
- the title of the email should also contain the phrase "gross data for difference metered private network" and contain the metering reference specified by us in place of the Settlement MPAN; and
- the text filename shall be formed of the metering reference specified by us followed by a hyphen and followed by a timestamp in the format YYYYMMDDHHMMSS and followed by ".txt".

2.80 For the avoidance of doubt, the reduced difference metered measurement data for the boundary connection that is to enter Settlement should continue to be sent using the Settlement MPAN.

### 3. Schedule of Charges for use of our Embedded Networks

- 3.1 Tables listing the charges for use of our Embedded Networks are published in the annexes to this document.
- 3.2 These charges are also listed in a spreadsheet which is published with this statement and can be downloaded from our website [www.ssen.co.uk](http://www.ssen.co.uk).
- 3.3 Annex 1 contains the charges applied to LV and HV Properties.
- 3.4 Annex 2 contains the charges applied to EHV Properties, which includes charges applied to LDNOs for end user EHV Properties embedded in networks which are connected to our Embedded Networks.
- 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 in respect of LV and HV Properties embedded in networks which are connected to our Embedded Networks.



## 4. Schedule of Line Loss Factors

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

- 4.1 Electricity entering or exiting our Embedded Networks is adjusted to take account of energy that is lost<sup>8</sup> as it is distributed through the network. This adjustment does not affect distribution charges but is used in energy settlement to take metered consumption to a notional Grid Supply Point so that Suppliers' purchases take account of the energy lost on the Distribution System.
- 4.2 We are responsible for calculating the Line Loss Factors (LLFs) and providing these to Elexon. Elexon is the company that manages the BSC.
- 4.3 LLFs are used to adjust the Metering System volumes to take account of losses on the Distribution System.

### Calculation of Line Loss Factors

- 4.4 LLFs are calculated in accordance with BSCP128 which sets out the procedures and principles with which our LLF methodology must comply. It also defines the procedure and timetable by which LLFs are reviewed and submitted.
- 4.5 LLFs are calculated for a set number of time periods during the year, using either a generic 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 as a default to all new EHV sites until sufficient data is available for a site specific calculation.
- 4.6 The definition of EHV used for LLF purposes differs from the definition used for defining EHV Properties that is used for charging purposes. The definition used for LLF purposes can be found in our LLF methodology.
- 4.7 The Elexon website<sup>9</sup> contains more information on LLFs.

### Publication of Line Loss Factor tables

- 4.8 The LLFs used in Settlement are published on the Elexon Portal website<sup>10</sup>. The website contains the LLFs in standard industry data formats and in a summary form. A user guide with details on registering and using the portal is also available.
- 4.9 BSCP 128 sets out the timetable by which LLFs are submitted and audited. The submission and audit occurs between September and December in the year prior to the LLFs becoming effective. Only after the completion of the audit at the end of December and BSC approval are the final LLFs published.
- 4.10 At the time that this charging statement is first published, Annex 5 will be intentionally left blank, as this statement is published a complete year before the LLFs have been calculated and audited. Once the final BSCP 128 Audit Report has been received, we will issue an updated version of Annex 5 containing the audited LLF values.

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<sup>8</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.

<sup>9</sup> The following page has links to BSCP128 and to our LLF methodology: <http://www.elexon.co.uk/reference/technical-operations/losses/>

<sup>10</sup> The Elexon Portal can be accessed from [www.elexonportal.co.uk](http://www.elexonportal.co.uk)

4.11 When using the tables in Annex 5, reference should be made to the LLFC allocated to the MPAN to find the appropriate values.

## 5. Notes for EHV Properties

### Charges for EHV Properties

- 5.1 The charges for EHV Properties are based on information available at the time that this statement was published. A new or modified connection will result in changes to current network utilisations which will then form the basis of future prices: 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 and any other changes made to the Embedded Networks or Host DNO systems which may affect the charges.

### Charges for New EHV Properties

- 5.2 Charges for any new EHV Properties calculated after publication of the current statement will be published on our website in an addendum to that statement as and when necessary. The addendum will include charge information of the type found in Annex 2, and LLFs as found in Annex 5.
- 5.3 The form of the addendum is detailed in Annex 6 of this statement.
- 5.4 The new EHV Properties' charges will be added to Annex 2 in the next full statement released.

### Charges for Amended EHV Properties

- 5.5 Where an existing EHV Property connection is modified and energised in the charging year, we may revise our charges for the modified EHV Property. If revised charges are appropriate, an addendum will be sent to all relevant parties and published as a revised 'Schedule of Charges and Other Tables' spreadsheet on our website [www.ssen.co.uk](http://www.ssen.co.uk). The modified EHV Property charges will be added to Annex 2 in the next full statement released.

### Demand Side Management

- 5.6 New or existing EHV Properties may wish to offer part of their MIC to be interruptible by us (for active network management purposes other than normal planned or unplanned outages) in order to benefit from any reduced DUoS charges.
- 5.7 Several options exist in which we may agree for some or the entire MIC to be interruptible. The applicable demand capacity costs would be based on the MIC minus the capacity subject to interruption.
- 5.8 If you are interested in making part or all of your MIC interruptible as an integral irrevocable feature of a new connection or modification to an existing connection you should in the first instance contact our connections function;

[connections@sse.com](mailto:connections@sse.com)

You must make an express statement in your application that you have an interest in some or all of the import capacity being interruptible for active network management purposes.

- 5.9 If you are proactively interested in voluntarily but revocably offering to make some or all of your existing connection's MIC interruptible you should in the first instance contact us at the address in paragraph 5.8.

## 6. Electricity Distribution Rebates

- 6.1 We have neither given nor announced any DUoS rebates to Users in the 12 months preceding the date of publication of this version of the statement.

## 7. Accounting and Administration Services

- 7.1 Other than the charges noted below, no Accounting and Administration charges are detailed within this statement. Please refer to our Statement of Miscellaneous Charges for details of our transactional charges and other notices.
- 7.2 We reserve the right to impose payment default remedies. The remedies are as set out in the DCUSA where applicable or else as detailed in the following paragraph.
- 7.3 If any invoices that are not subject to a valid dispute remain unpaid on the due date, late payment interest (calculated at Base Rate plus 8%) and administration charges may be imposed.
- 7.4 Our administration charges are detailed in the following table.

Size of Unpaid Debt	Late Payment Fee
Up to £999.99	£40.00
£1,000 to £9,999.99	£70.00
£10,000 or more	£100.00

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

- 8.1 No charges for electrical plant provided ancillary to the grant of Use of System are detailed within this statement. Please refer to our Statement of Miscellaneous Charges for details of transactional charges and other notices.

## Appendix 1 - Glossary

- 1.1. The following definitions, which can extend to grammatical variations and cognate expressions, are included to aid understanding:

Term	Definition
Balancing and Settlement Code (BSC)	The BSC contains the governance arrangements for electricity balancing and settlement in Great Britain. An overview 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> .
Balancing and Settlement Code Procedure (BSCP)	A document of that title, as established or adopted and from time to time modified by the Panel in accordance with The Code, setting out procedures to be complied with (by Parties, Party Agents, BSC Agents, BSCCo, the Panel and others) in, and other matters relating to, the implementation of The Code;
Connection Agreement	An agreement between an LDNO and a Customer which provides that the Customer has the right for its connected installation to be and remain directly or indirectly connected to that LDNO's Distribution System.
Central Volume Allocation (CVA)	As defined in the BSC.
Customer	<p>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;</p> <p>or</p> <p>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).</p>
Distribution Connection and Use of System Agreement (DCUSA)	<p>The DCUSA is a multi-party contract between the licensed electricity distributors, suppliers, generators and Offshore Transmission Owners of Great Britain.</p> <p>It is a requirement that all licensed electricity distributors and suppliers become parties to the DCUSA.</p>

Term	Definition																																																																					
Distributor IDs	<p>These are unique IDs that can be used, with reference to the MPAN, to identify your LDNO. The charges for other network operators can be found on their website.</p>																																																																					
	<table border="1"> <thead> <tr> <th data-bbox="480 414 555 477">ID</th> <th data-bbox="555 414 839 477">Distribution Service Area</th> <th data-bbox="839 414 1214 477">Company</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>East of England</td> <td>UK Power Networks</td> </tr> <tr> <td>11</td> <td>East Midlands</td> <td>Western Power Distribution</td> </tr> <tr> <td>12</td> <td>London</td> <td>UK Power Networks</td> </tr> <tr> <td>13</td> <td>Merseyside and North Wales</td> <td>Scottish Power</td> </tr> <tr> <td>14</td> <td>Midlands</td> <td>Western Power Distribution</td> </tr> <tr> <td>15</td> <td>Northern</td> <td>Northern Powergrid</td> </tr> <tr> <td>16</td> <td>North Western</td> <td>Electricity North West</td> </tr> <tr> <td>17</td> <td>Scottish Hydro Electric (and embedded networks in other areas)</td> <td>Scottish Hydro Electric Power Distribution plc</td> </tr> <tr> <td>18</td> <td>South Scotland</td> <td>Scottish Power</td> </tr> <tr> <td>19</td> <td>South East England</td> <td>UK Power Networks</td> </tr> <tr> <td>20</td> <td>Southern Electric (and embedded networks in other areas)</td> <td>Southern Electric Power Distribution plc</td> </tr> <tr> <td>21</td> <td>South Wales</td> <td>Western Power Distribution</td> </tr> <tr> <td>22</td> <td>South Western</td> <td>Western Power Distribution</td> </tr> <tr> <td>23</td> <td>Yorkshire</td> <td>Northern Powergrid</td> </tr> <tr> <td>24</td> <td>All</td> <td>Independent Power Networks</td> </tr> <tr> <td>25</td> <td>All</td> <td>ESP Electricity</td> </tr> <tr> <td>26</td> <td>All</td> <td>Last Mile Electricity Ltd</td> </tr> <tr> <td>27</td> <td>All</td> <td>The Electricity Network Company Ltd</td> </tr> <tr> <td>29</td> <td>All</td> <td>Harlaxton Energy Networks</td> </tr> <tr> <td>30</td> <td>All</td> <td>Peel Electricity Networks Ltd</td> </tr> <tr> <td>31</td> <td>All</td> <td>UK Power Distribution Ltd</td> </tr> <tr> <td>32</td> <td>All</td> <td>Utility Distribution Networks</td> </tr> </tbody> </table>	ID	Distribution Service Area	Company	10	East of England	UK Power Networks	11	East Midlands	Western Power Distribution	12	London	UK Power Networks	13	Merseyside and North Wales	Scottish Power	14	Midlands	Western Power Distribution	15	Northern	Northern Powergrid	16	North Western	Electricity North West	17	Scottish Hydro Electric (and embedded networks in other areas)	Scottish Hydro Electric Power Distribution plc	18	South Scotland	Scottish Power	19	South East England	UK Power Networks	20	Southern Electric (and embedded networks in other areas)	Southern Electric Power Distribution plc	21	South Wales	Western Power Distribution	22	South Western	Western Power Distribution	23	Yorkshire	Northern Powergrid	24	All	Independent Power Networks	25	All	ESP Electricity	26	All	Last Mile Electricity Ltd	27	All	The Electricity Network Company Ltd	29	All	Harlaxton Energy Networks	30	All	Peel Electricity Networks Ltd	31	All	UK Power Distribution Ltd	32	All	Utility Distribution Networks
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Distribution Network Operator (DNO)	<p>An electricity distributor that operates one of the 14 distribution services areas and in whose Electricity Distribution Licence the requirements of Section B of the standard conditions of that licence have effect.</p>																																																																					
Distribution Services Area	<p>The area specified by the Gas and Electricity Markets Authority within which each DNO must provide specified distribution services.</p>																																																																					



Term	Definition
Distribution System	<p>The system consisting (wholly or mainly) of electric lines owned or operated by an authorised distributor that is used for the distribution of electricity from:</p> <ul style="list-style-type: none"> <li>• Grid Supply Points or generation sets or other entry points</li> </ul> <p>to the points of delivery to:</p> <ul style="list-style-type: none"> <li>• Customers or Users or any transmission licensee in its capacity as operator of that licensee’s transmission system or the Great Britain (GB) transmission system and includes any remote transmission assets (owned by a transmission licensee within Scotland)</li> </ul> <p>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.</p>
EHV Properties	Demand users and/or distributed generators metered at 22,000 volts or above, or metered at an EHV/HV substation.
Electricity Distribution Licence	The Electricity Distribution Licence granted or treated as granted pursuant to section 6(1) of the Electricity Act 1989.
Electricity Distributor	Any person who is authorised by an Electricity Distribution Licence to distribute electricity.
Embedded Network	An electricity Distribution System operated by an LDNO and embedded within another Distribution System.
Engineering Recommendation P2/6	A document of the Energy Networks Association, which defines minimum planning standards for security of supply and is referred to in Standard Licence Condition 24 of our Electricity Distribution Licence.
Entry Point	A boundary point at which electricity is exported onto a Distribution System from a connected installation or from 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)	As established by the Utilities Act 2000.
Grid Supply Point (GSP)	A metered connection between the electricity transmission system and the licensee’s Distribution System at which electricity flows to or from the Distribution System.

Term	Definition
GSP group	A distinct electrical system that is supplied from one or more GSPs 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.
HV and LV Properties	Demand users and/or distributed generators metered below 22,000 volts.
Intermittent Generation	Defined in DCUSA Schedule 16 as a generation plant where the energy source of the prime mover can not be made available on demand, in accordance to the definitions in Engineering Recommendation P2/6.
Invalid Settlement Combination	A Settlement combination that is not recognised as a valid combination in market domain data - see <a href="https://www.elexonportal.co.uk/MDDVIEWER">https://www.elexonportal.co.uk/MDDVIEWER</a> .
kVA	Kilovolt ampere.
kVArh	Kilovolt ampere reactive hour.
kW	Kilowatt.
kWh	Kilowatt hour (equivalent to one "unit" of electricity).
Licensed Distribution Network Operator (LDNO)	The holder of a Licence to distribute electricity.
Line Loss Factor (LLF)	The factor that is used in Settlement to adjust the metering system volumes to take account of losses on the Distribution System.
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.
Load Factor	$= \frac{\text{annual consumption (kWh)}}{\text{maximum demand (kW)} \times \text{hours in year}}$
Low Voltage (LV)	Nominal voltages below 1kV.
Market Domain Data (MDD)	MDD is a central repository of reference data available to all Users involved in Settlement. It is essential to the operation of SVA trading arrangements.
Maximum Export Capacity (MEC)	The MEC 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 MIC 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.

Term	Definition
Measurement Class	<p>A classification of Metering Systems used in the BSC which indicates how consumption is measured, i.e.:</p> <ul style="list-style-type: none"> <li>• Measurement Class A – non-half-hourly metering equipment;</li> <li>• Measurement Class B – non-half-hourly unmetered supplies;</li> <li>• Measurement Class C – half-hourly metering equipment at or above 100kW premises;</li> <li>• Measurement Class D – half-hourly unmetered supplies;</li> <li>• Measurement Class E – half-hourly metering equipment below 100kW premises, and from 5 November 2015, with current transformer;</li> <li>• Measurement Class F – half hourly metering equipment at below 100kW premises with current transformer or whole current, and at domestic premises; and</li> <li>• Measurement Class G – half hourly metering equipment at below 100kW premises with whole current and not at domestic premises.</li> </ul>
Meter Timeswitch Code (MTC)	<p>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. Further information can be found in MDD.</p>
Metering Point	<p>The point at which electricity that 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, GSPs are not 'Metering Points'.</p>
Metering Point Administration Number (MPAN)	<p>A number relating to a Metering Point under the MRA.</p>
Metering System	<p>Particular commissioned metering equipment installed for the purposes of measuring the quantities of exports and/or imports at the exit point or entry point.</p>
Metering System Identifier (MSID)	<p>MSID is a term used throughout the BSC and its subsidiary documents and has the same meaning as MPAN as used under the MRA.</p>
Master Registration Agreement (MRA)	<p>The Master Registration Agreement (MRA) provides a governance mechanism to manage the processes established between electricity suppliers and distribution companies to enable electricity suppliers to transfer customers. It includes terms for the provision of Metering Point Administration Services (MPAS) Registrations.</p>
Nested Networks	<p>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 → primary nested DNO → secondary nested DNO → Customer).</p>

Term	Definition
Non-Intermittent Generation	Defined in DCUSA Schedule 16 as a generation plant where the energy source of the prime mover can be made available on demand, in accordance to the definitions in Engineering Recommendation P2/6.
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 BSC.
Settlement Class (SC)	The combination of Profile Class, Line Loss Factor Class, Time Pattern Regime and Standard Settlement Configuration, by Supplier within a GSP group and used for Settlement.
Standard Settlement Configuration (SSC)	A standard metering configuration relating to a specific combination of Time Pattern Regimes.
Supercustomer	The method of billing Users for use of system on an aggregated basis, grouping together consumption and standing charges for all similar NHH metered Customers or aggregated HH metered Customers.
Supercustomer DUoS Report	A report of profiled data by Settlement Class providing counts of MPANs and units consumed.
Supplier	An organisation with a supply licence responsible for electricity supplied to and/or exported from a Metering Point.
Supplier Volume Allocation (SVA)	As defined in the BSC.
Time Pattern Regime (TPR)	The pattern of switching behaviour through time that one or more meter registers follow.
Unmetered Supplies	Exit points deemed to be suitable as unmetered supplies as permitted in the Electricity (Unmetered Supply) Regulations 2001 and where operated in accordance with BSC procedure 52011.
Use of System Charges	Charges which are applicable to those parties which use the Distribution System.
User	Someone that has a use of system agreement with the LDNO e.g. a Supplier, generator or other LDNO.

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<sup>11</sup> Balancing and Settlement Code Procedures are available from <http://www.elexon.co.uk/pages/bscps.aspx>

## Appendix 2 - Guidance notes<sup>12</sup>

### Background

- 1.1. The electricity bill from your Supplier contains an element of charge to cover electricity distribution costs. This distribution charge covers the cost of operating and maintaining a safe and reliable Distribution System that forms the 'wires' that transport electricity between the national transmission system and end users such as homes and businesses. Our Distribution System includes overhead lines, underground cables, as well as substations and transformers.
- 1.2. In most cases, your Supplier is invoiced for the distribution charge and this is normally part of your total bill. In some cases, for example business users, the Supplier may pass through the distribution charge as an identifiable line item on the electricity bill.
- 1.3. Where electricity is generated at a premises your Supplier may receive a credit for energy that is exported on to the Distribution System. These credits are intended to reflect that the exported generation may reduce the need for traditional demand led reinforcement of the Distribution System.
- 1.4. Understanding your distribution charges could help you reduce your costs and increase your credits. This is achieved by understanding the components of the charge to help you identify whether there may be opportunities to change the way you use the Distribution System.

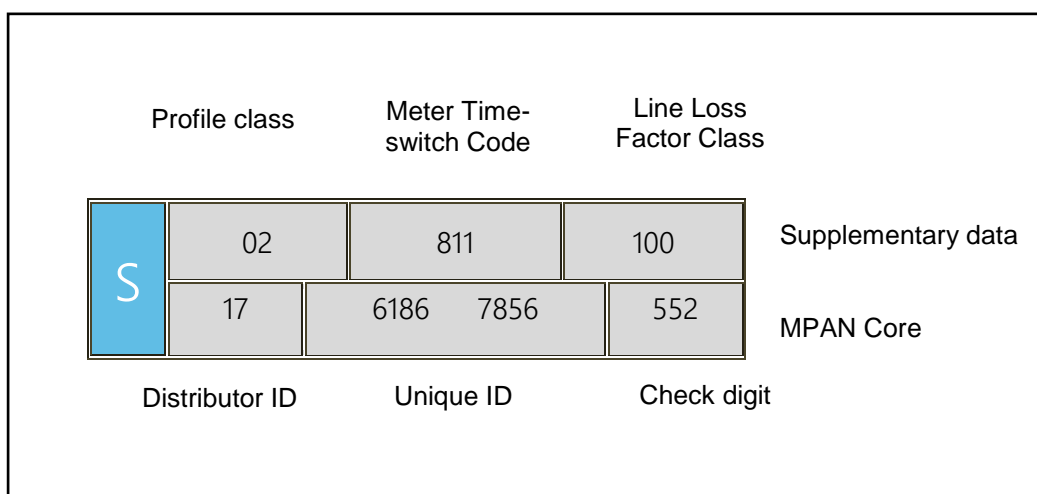
### Meter point administration

- 1.5. We are responsible for managing the electricity supply points that are connected to our Distribution System. Typically every supply point is identified by a Meter Point Administration Number (MPAN). A few supply points may have more than one MPAN depending on the metering configuration (e.g. a school which may have an MPAN for the main supply and an MPAN for catering).
- 1.6. The full MPAN is a 21 digit number, preceded by an 'S' and includes supplementary data. The MPAN applicable to a supply point is found on the electricity bill from your Supplier. This number enables you to establish who your electricity distributor is, details of the characteristics of the supply and importantly the distribution charges that are applicable to your premises.
- 1.7. The 21-digit number is normally presented in two sections as shown in the following diagram. The top section is supplementary data which gives information about the characteristics of supply, while the bottom 'core' is the unique identifier.

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<sup>12</sup> These guidance notes are provided for additional information and do not form part of the application of charges.

## Full MPAN diagram



- 1.8. Generally, you will only need to know the Distributor ID and LLFC to identify the distribution charges for your premises. However, there are some premises where charges are specific to that site. In these instances the charges are identified by the core MPAN. The Distributor ID for SHEPD is 17. Other Distributor IDs can be referenced in the Glossary.
- 1.9. Additionally, it can be useful to understand the profile class provided in the supplementary data. The profile class will be a number between 00 and 08. The following list provides details of the allocation of profile classes to types of Customers:
- '01' – Domestic Customers with unrestricted supply
  - '02' – Domestic Customers with restricted load, for example off-peak heating
  - '03' – Non-domestic Customers with unrestricted supply
  - '04' – Non-domestic Customers with restricted load, for example off-peak heating
  - '05' – Non-domestic maximum demand Customers with a Load Factor of less than 20%
  - '06' – Non-domestic maximum demand Customers with a Load Factor between 20% and 30%
  - '07' – Non-domestic maximum demand Customers with a Load Factor between 30% and 40%
  - '08' – Non-domestic maximum demand Customers with a Load Factor over 40% or non-half-hourly metered generation Customers
  - '00' – Half-hourly metered demand and generation Customers
- 1.10. Unmetered Supplies will be allocated to profile class 01, 08 or 00 depending on the type of load or the measurement method of the load.
- 1.11. The allocation of the profile class will affect your charges. If you feel that you have been allocated the wrong profile class, please contact your Supplier as they are responsible for this.

### Your charges

- 1.12. All distribution charges that relate to our Distributor ID 17 and to premises connected to our Embedded Networks are provided in this statement.

- 1.13. You can identify your charges by referencing your LLFC, from Annex 1. If the MPAN is for an EHV Property then the charges will be found in Annex 2. In a few instances, the charges may be contained in Annex 3 or Annex 6. When identifying charges in Annex 2, please note that some LLFCs have more than one charge. In this instance you will need to select the correct charge by cross referencing with the MPAN core provided in the table.
- 1.14. Once you have identified which charge structure applies to your MPAN then you will be able to calculate an estimate of your distribution charge using the calculator provided in the spreadsheet 'Schedule of Charges and Other Tables' found in the sheet called 'Charge Calculator'. This spreadsheet can be downloaded from [www.ssen.co.uk](http://www.ssen.co.uk).

#### Reducing your charges

- 1.15. The most effective way to reduce your energy charges is to reduce your consumption by switching off or using more energy efficient appliances. However, there are also other potential opportunities to reduce your distribution charges; for example, it may be beneficial to shift demand or generation to a better time period. Demand use is likely to be cheaper outside the peak periods and generation credits more beneficial during peak periods, although the ability to directly benefit will be linked to the structure of your supply charges.
- 1.16. The calculator mentioned above provides the opportunity to establish a forecast of the change in distribution charges that could be achieved if you are able to change any of the consumption related inputs.

#### Reactive power and reactive power charges

- 1.17. Reactive power is a separately charged component of connections that are half-hourly metered. Reactive power charges are generally avoidable if 'best practice' design of the properties' electrical installation has been provided in order to maintain a power factor between 0.95 and unity at the Metering Point.
- 1.18. Reactive Power (kVArh) is the difference between working power (active power measured in kW) and total power consumed (apparent power measured in kVA). Essentially it is a measure of how efficiently electrical power is transported through an electrical installation or a Distribution System.
- 1.19. Power flowing with a power factor of unity results in the most efficient loading of the Distribution System. Power flowing with a power factor of less than 0.95 results in much higher losses in the Distribution System, a need to potentially provide higher capacity electrical equipment and consequently a higher bill for you the consumer. A comparatively small improvement in power factor can bring about a significant reduction in losses since losses are proportional to the square of the current.
- 1.20. Different types of electrical equipment require some 'reactive power' in addition to 'active power' in order to work effectively. Electric motors, transformers and fluorescent lighting, for example, may produce poor power factors due to the nature of their inductive load. However, if good design practice is applied then the poor power factor of appliances can be corrected as near as possible to source. Alternatively poor power factor can be corrected centrally near to the meter.
- 1.21. There are many advantages that can be achieved by correcting poor power factor. These include: reduced energy bills through lower reactive charges, lower capacity charges and reduced power consumption and reduced voltage drop in long cable runs.

## Site-specific charges

- 1.22. A site classified as an EHV Property is subject to a locational-based charging methodology for higher voltage network users. The site-specific charges will apply to Customers connected at Extra-High Voltage or connected at High Voltage and metered at a high voltage substation.
- 1.23. The site-specific charges reflect the degree to which the local and higher voltage networks have the capacity to serve more demand without the need to upgrade the electricity infrastructure. The conditions for eligibility of generators for credits are specified in the applicable charging methodology. Generators that benefit from an exemption from UoS charges for generation, or that are intermittent in accordance to the definitions in Engineering Recommendation P2/6 and that cannot maintain production for a continuous period of several weeks, are unlikely to be eligible for EHV credits. In any event, eligibility for EHV credits depends on a site-specific assessment of whether the generation can be considered to have a contribution to security of supply under Engineering Recommendation P2/6.
- 1.24. The site-specific charges comprise of the following individual components:
- a) Fixed charge(pence/MPAN/day) - This charge recovers operational costs associated with those connection assets that are provided for the 'sole' use of the Customer. The value of these assets is used as a basis to derive the charge.
  - b) Capacity charge (pence/kVA/day) -This charge comprises of the relevant locational cost component assessed by the Host DNO relevant for the Customer's connection, the electricity transmission cost and other business costs.  
  
Capacity charges are levied on the MIC, MEC, and any exceeded capacity. You may wish to review your MIC or MEC periodically to ensure it remains appropriate for your needs as you may be paying for more capacity than you require. If you wish to make changes contact us via the details in paragraph 1.14.
  - c) Super-red unit charge (pence/kWh) - This charge recovers the relevant locational cost component assessed by the Host DNO relevant for the Customer's connection. The charge is zero or positive for import and zero or negative for export which means you can either reduce your charges by minimising consumption or increasing export at those times. The charge is applied to consumption during the Super-red time period as detailed in Annex 2.
- 1.25. Future charge rates may be affected by consumption during the Super-red time period therefore reducing consumption in the Super-red time period may be beneficial.
- 1.26. Reactive Power – The site-specific charges does not include a separate charge component for any reactive power flows (kVAr) for either demand or generation. However, the charges do reflect the effect on the network of the Customer's power factor, for example, unit charges can increase if your site power factor is poor (lower than 0.95). Improving your site's power factor will also reduce the maximum demand (kVA) for the same power consumed in kW thus providing scope to reduce your agreed capacity requirements.



#### Additional Notes

The Domestic and Non-Domestic off-peak (related MPAN) tariffs are supplementary to a standard unrestricted tariff.

Off-peak terms are only available to Metering Points that are already on such terms and where:

- a) the Customer retains the original off-peak equipment and the circuits from which the off-peak supply is taken are separated from all other circuits;
- b) the function of the off-peak equipment is not duplicated by other equipment connected to the other circuits; and
- c) "off-peak equipment" means appliances such as thermal storage heaters, storage water heaters or other equipment as agreed by us

Generally, Domestic DUoS tariffs are available only to premises:

- a) used exclusively as a single private residence; or
- b) comprising more than one private residence where the estimated maximum demand of the supply does not exceed 25 kW

Generally, the Small Non Domestic tariffs are only available to premises which use less than 70kW/kVA and have a whole current meter

HV Medium Non-Domestic tariff is closed to new HV Customers. All new HV Customers will require half-hourly metering

## Annex 1 - Schedule of Charges for use of the Distribution System by LV and HV Properties in "SP Distribution Area (GSP Group\_N)"

### Scottish Hydro Electric Power Distribution plc - Effective from 1st April 2020 - Final LV and HV charges in SP Distribution Area (GSP Group\_N)

Time Bands for Half Hourly Metered Properties			
Time periods	Red Time Band	Amber Time Band	Green Time Band
Monday to Friday (Including Bank Holidays) All Year	16.30 - 19.30	08.00 - 16.30 19.30 - 22.30	00.00 - 08.00 22.30 - 00.00
Saturday and Sunday All Year		16.00 - 20.00	00.00 - 16.00 20.00 - 00.00
Notes	All the above times are in UK Clock time		

Time Bands for Half Hourly Unmetered Properties			
	Black Time Band	Yellow Time Band	Green Time Band
Monday to Friday (Including Bank Holidays) June to August Inclusive		08.00 - 22.30	00.00 - 08.00 22.30 - 00.00
Monday to Friday (Including Bank Holidays) November to February Inclusive	16.30 - 19.30	08.00 - 16.30 19.30 - 22.30	00.00 - 08.00 22.30 - 00.00
Monday to Friday (Including Bank Holidays) March, April, May and September, October		08.00 - 22.30	00.00 - 08.00 22.30 - 00.00
Saturday and Sunday All year		16.00 - 20.00	00:00 - 16:00 20:00 - 00:00
Notes	All the above times are in UK Clock time		

Tariff name	Open LLFCs	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh	Closed LLFCs
Domestic Unrestricted	381, 408, 411, 420	1	2.747			4.32				
Domestic Two Rate	382, 409, 412, 421	2	3.235	1.380		4.32				
Domestic Off Peak (related MPAN)		2	1.368							

Tariff name	Open LLFCs	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh	Closed LLFCs
Small Non Domestic Unrestricted	383, 413, 422, 443	3	2.617			5.52				
Small Non Domestic Two Rate	384, 414, 423, 444	3&4	3.158	1.432		5.52				
Small Non Domestic Off Peak (related MPAN)		4	1.750							
LV Medium Non-Domestic	385, 389, 415, 419, 424, 445	5-8	2.500	1.371		26.90				
LV Sub Medium Non-Domestic	377	5-8	2.095	1.340		-				
HV Medium Non-Domestic										
LV Network Domestic	417, 436, 438, 440	-	9.680	2.157	1.311	4.32				
LV Network Non-Domestic Non-CT	418, 437, 439, 441	-	9.219	2.109	1.309	5.52				
LV HH Metered	380, 410, 425	-	7.457	1.902	1.301	21.68	2.34	3.51	0.184	
LV Sub HH Metered	378	-	5.054	1.618	1.289	7.65	4.28	4.90	0.103	
HV HH Metered	379, 386, 416, 426	-	3.952	1.503	1.285	115.87	4.70	5.84	0.068	
NHH UMS category A	401, 427, 432	1&8	2.365							
NHH UMS category B	402, 407, 428, 433	1	2.616							
NHH UMS category C	403, 429, 434	1	3.448							
NHH UMS category D	404, 430, 435	1	2.183							
LV UMS (Pseudo HH Metered)	400, 431	-	16.368	2.216	1.701					

Tariff name	Open LLFCs	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh	Closed LLFCs
LV Generation NHH or Aggregate HH	390	0&8	-0.752			-				
LV Sub Generation NHH		8	-0.659			-				
LV Generation Intermittent	303, 387	-	-0.752			-			0.166	
LV Generation Intermittent no RP charge	323, 391	-	-0.752			-				
LV Generation Non-Intermittent	392	-	-5.705	-0.595	-0.020	-			0.166	
LV Generation Non-Intermittent no RP charge	396	-	-5.705	-0.595	-0.020	-				
LV Sub Generation Intermittent	394	-	-0.659			-			0.147	
LV Sub Generation Intermittent no RP charge	397	-	-0.659			-				
LV Sub Generation Non-Intermittent	393	-	-5.029	-0.515	-0.016	-			0.147	
LV Sub Generation Non-Intermittent no RP charge	398	-	-5.029	-0.515	-0.016	-				
HV Generation Intermittent	388	-	-0.403			84.61			0.122	
HV Generation Intermittent no RP charge	405	-	-0.403			84.61				
HV Generation Non-Intermittent	395	-	-3.227	-0.286	-0.006	84.61			0.122	
HV Generation Non-Intermittent no RP charge	406	-	-3.227	-0.286	-0.006	84.61				

Annex 2 - Schedule of Charges for use of the Distribution System by EHV Properties (including LDNOs with EHV Properties/end-users) in "SP Distribution Area (GSP Group \_N)"

Note: The list of MPANs / MSIDs provided may be incomplete; the DNO reserves the right to apply the listed charges to any other MPANs / MSIDs associated with the site.

Scottish Hydro Electric Power Distribution plc - Effective from 1st April 2020 - Final Schedule of Charges for use of the Distribution System by EHV Properties (including LDNOs with EHV Properties/end-users in SP Distribution Area (GSP Group \_N)

Time Periods for EHV Properties	
Time periods	Super Red Time Band
Monday to Friday (Including Bank Holidays) June to August Inclusive	
Monday to Friday (Including Bank Holidays) November to February Inclusive	16:30 - 19:30
Notes	All the above times are in UK Clock time

Import LLFC	Import MPANs/MSIDs	Export LLFC	Export MPANs/MSIDs	Name	Import Super Red unit charge (p/kWh)	Import fixed charge (p/day)	Import capacity charge (p/kVA/day)	Import exceeded capacity charge (p/kVA/day)	Export Super Red unit charge (p/kWh)	Export fixed charge (p/day)	Export capacity charge (p/kVA/day)	Export exceeded capacity charge (p/kVA/day)

Annex 3 - Schedule of Charges for use of the Distribution System to Preserved/Additional LLFC Classes in "SP Distribution Area (GSP Group \_N)"

Scottish Hydro Electric Power Distribution plc - Effective from 1st April 2020 - Final LV and HV tariffs in SP Distribution Area (GSP Group _N)									
NHH preserved charges/additional LLFCs									
	Closed LLFCs	PCs							
Notes:	Unit time periods are as specified in the SSC.								

Annex 4 - Charges applied to LDNOs with HV/LV end users in "SP Distribution Area (GSP Group \_N)"

Scottish Hydro Electric Power Distribution plc - Effective from 1st April 2020 - Final LDNO tariffs in SP Distribution Area (GSP Group \_N)

Time Bands for Half Hourly Metered Properties			
Time periods	Red Time Band	Amber Time Band	Green Time Band
Monday to Friday (Including Bank Holidays) All Year	16.30 - 19.30	08.00 - 16.30 19.30 - 22.30	00.00 - 08.00 22.30 - 00.00
Saturday and Sunday All Year		16.00 - 20.00	00.00 - 16.00 20.00 - 00.00
Notes	All the above times are in UK Clock time		

Time Bands for Half Hourly Unmetered Properties			
	Black Time Band	Yellow Time Band	Green Time Band
Monday to Friday (Including Bank Holidays) June to August Inclusive		08.00 - 22.30	00.00 - 08.00 22.30 - 00.00
Monday to Friday (Including Bank Holidays) November to February Inclusive	16.30 - 19.30	08.00 - 16.30 19.30 - 22.30	00.00 - 08.00 22.30 - 00.00
Monday to Friday (Including Bank Holidays) March to May, & September to October, Inclusive		08.00 - 22.30	00.00 - 08.00 22.30 - 00.00
Saturday and Sunday All year		16.00 - 20.00	00:00 - 16:00 20:00 - 00:00
Notes	All the above times are in UK Clock time		

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO LV: Domestic Unrestricted		1	1.676			2.64			
LDNO LV: Domestic Two Rate		2	1.974	0.842		2.64			

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO LV: Domestic Off Peak (related MPAN)		2	0.835						
LDNO LV: Small Non Domestic Unrestricted		3	1.597			3.37			
LDNO LV: Small Non Domestic Two Rate		4	1.927	0.874		3.37			
LDNO LV: Small Non Domestic Off Peak (related MPAN)		4	1.068						
LDNO LV: LV Medium Non-Domestic		5-8	1.525	0.837		16.41			
LDNO LV: LV Network Domestic		0	5.907	1.316	0.800	2.64			
LDNO LV: LV Network Non-Domestic Non-CT		0	5.625	1.287	0.799	3.37			
LDNO LV: LV HH Metered		0	4.550	1.161	0.794	13.23	1.43	2.14	0.112
LDNO LV: NHH UMS category A		8	1.443						
LDNO LV: NHH UMS category B		1	1.596						
LDNO LV: NHH UMS category C		1	2.104						
LDNO LV: NHH UMS category D		1	1.332						
LDNO LV: LV UMS (Pseudo HH Metered)		0	9.988	1.352	1.038				
LDNO LV: LV Generation NHH or Aggregate HH		8&0	-0.752			-			
LDNO LV: LV Generation Intermittent		0	-0.752			-			0.166
LDNO LV: LV Generation Non-Intermittent		0	-5.705	-0.595	-0.020	-			0.166
LDNO HV: Domestic Unrestricted		1	1.056			1.66			
LDNO HV: Domestic Two Rate		2	1.244	0.531		1.66			
LDNO HV: Domestic Off Peak (related MPAN)		2	0.526						
LDNO HV: Small Non Domestic Unrestricted		3	1.006			2.12			
LDNO HV: Small Non Domestic Two Rate		4	1.215	0.551		2.12			



Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO HV: Small Non Domestic Off Peak (related MPAN)		4	0.673						
LDNO HV: LV Medium Non-Domestic		5-8	0.961	0.527		10.34			
LDNO HV: LV Network Domestic		0	3.723	0.829	0.504	1.66			
LDNO HV: LV Network Non-Domestic Non-CT		0	3.545	0.811	0.503	2.12			
LDNO HV: LV HH Metered		0	2.868	0.731	0.500	8.34	0.90	1.35	0.071
LDNO HV: LV Sub HH Metered		0	3.191	1.021	0.814	4.83	2.70	3.10	0.065
LDNO HV: HV HH Metered		0	2.864	1.089	0.931	83.96	3.41	4.23	0.049
LDNO HV: NHH UMS category A		8	0.909						
LDNO HV: NHH UMS category B		1	1.006						
LDNO HV: NHH UMS category C		1	1.326						
LDNO HV: NHH UMS category D		1	0.839						
LDNO HV: LV UMS (Pseudo HH Metered)		0	6.294	0.852	0.654				
LDNO HV: LV Generation NHH or Aggregate HH		8&0	-0.752			-			
LDNO HV: LV Sub Generation NHH		8	-0.659			-			
LDNO HV: LV Generation Intermittent		0	-0.752			-			0.166
LDNO HV: LV Generation Non-Intermittent		0	-5.705	-0.595	-0.020	-			0.166
LDNO HV: LV Sub Generation Intermittent		0	-0.659			-			0.147
LDNO HV: LV Sub Generation Non-Intermittent		0	-5.029	-0.515	-0.016	-			0.147
LDNO HV: HV Generation Intermittent		0	-0.403			-			0.122
LDNO HV: HV Generation Non-Intermittent		0	-3.227	-0.286	-0.006	-			0.122
LDNO HVplus: Domestic Unrestricted		1	0.651			1.02			

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO HVplus: Domestic Two Rate		2	0.767	0.327		1.02			
LDNO HVplus: Domestic Off Peak (related MPAN)		2	0.324						
LDNO HVplus: Small Non Domestic Unrestricted		3	0.620			1.31			
LDNO HVplus: Small Non Domestic Two Rate		4	0.748	0.339		1.31			
LDNO HVplus: Small Non Domestic Off Peak (related MPAN)		4	0.415						
LDNO HVplus: LV Medium Non-Domestic		5-8	0.592	0.325		6.37			
LDNO HVplus: LV Sub Medium Non-Domestic		5-8	0.794	0.508		-			
LDNO HVplus: HV Medium Non-Domestic		5-8	0.757	0.563		125.09			
LDNO HVplus: LV Network Domestic		-	2.294	0.511	0.311	1.02			
LDNO HVplus: LV Network Non-Domestic Non-CT		-	2.185	0.500	0.310	1.31			
LDNO HVplus: LV HH Metered		0	1.767	0.451	0.308	5.14	0.55	0.83	0.044
LDNO HVplus: LV Sub HH Metered		0	1.915	0.613	0.488	2.90	1.62	1.86	0.039
LDNO HVplus: HV HH Metered		0	1.702	0.647	0.553	49.90	2.02	2.51	0.029
LDNO HVplus: NHH UMS category A		8	0.560						
LDNO HVplus: NHH UMS category B		1	0.620						
LDNO HVplus: NHH UMS category C		1	0.817						
LDNO HVplus: NHH UMS category D		1	0.517						
LDNO HVplus: LV UMS (Pseudo HH Metered)		0	3.879	0.525	0.403				
LDNO HVplus: LV Generation NHH or Aggregate HH		8	-0.285			-			
LDNO HVplus: LV Sub Generation NHH		8	-0.284			-			

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO HVplus: LV Generation Intermittent		0	-0.285			-			0.063
LDNO HVplus: LV Generation Non-Intermittent		0	-2.162	-0.225	-0.008	-			0.063
LDNO HVplus: LV Sub Generation Intermittent		0	-0.284			-			0.063
LDNO HVplus: LV Sub Generation Non-Intermittent		0	-2.166	-0.222	-0.007	-			0.063
LDNO HVplus: HV Generation Intermittent		0	-0.403			84.61			0.122
LDNO HVplus: HV Generation Non-Intermittent		0	-3.227	-0.286	-0.006	84.61			0.122
LDNO EHV: Domestic Unrestricted		1	0.317			0.50			
LDNO EHV: Domestic Two Rate		2	0.373	0.159		0.50			
LDNO EHV: Domestic Off Peak (related MPAN)		2	0.158						
LDNO EHV: Small Non Domestic Unrestricted		3	0.302			0.64			
LDNO EHV: Small Non Domestic Two Rate		4	0.365	0.165		0.64			
LDNO EHV: Small Non Domestic Off Peak (related MPAN)		4	0.202						
LDNO EHV: LV Medium Non-Domestic		5-8	0.289	0.158		3.11			
LDNO EHV: LV Sub Medium Non-Domestic		5-8	0.387	0.247		-			
LDNO EHV: HV Medium Non-Domestic		5-8	0.369	0.274		60.94			
LDNO EHV: LV Network Domestic		-	1.118	0.249	0.151	0.50			
LDNO EHV: LV Network Non-Domestic Non-CT		-	1.064	0.243	0.151	0.64			
LDNO EHV: LV HH Metered		0	0.861	0.220	0.150	2.50	0.27	0.41	0.021
LDNO EHV: LV Sub HH Metered		0	0.933	0.299	0.238	1.41	0.79	0.90	0.019
LDNO EHV: HV HH Metered		0	0.829	0.315	0.270	24.31	0.99	1.23	0.014

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO EHV: NHH UMS category A		8	0.273						
LDNO EHV: NHH UMS category B		1	0.302						
LDNO EHV: NHH UMS category C		1	0.398						
LDNO EHV: NHH UMS category D		1	0.252						
LDNO EHV: LV UMS (Pseudo HH Metered)		0	1.890	0.256	0.196				
LDNO EHV: LV Generation NHH or Aggregate HH		8	-0.139			-			
LDNO EHV: LV Sub Generation NHH		8	-0.138			-			
LDNO EHV: LV Generation Intermittent		0	-0.139			-			0.031
LDNO EHV: LV Generation Non-Intermittent		0	-1.053	-0.110	-0.004	-			0.031
LDNO EHV: LV Sub Generation Intermittent		0	-0.138			-			0.031
LDNO EHV: LV Sub Generation Non-Intermittent		0	-1.055	-0.108	-0.003	-			0.031
LDNO EHV: HV Generation Intermittent		0	-0.196			41.22			0.059
LDNO EHV: HV Generation Non-Intermittent		0	-1.572	-0.139	-0.003	41.22			0.059
LDNO 132kV/EHV: Domestic Unrestricted		1	0.058			0.09			
LDNO 132kV/EHV: Domestic Two Rate		2	0.068	0.029		0.09			
LDNO 132kV/EHV: Domestic Off Peak (related MPAN)		2	0.029						
LDNO 132kV/EHV: Small Non Domestic Unrestricted		3	0.055			0.12			
LDNO 132kV/EHV: Small Non Domestic Two Rate		4	0.067	0.030		0.12			
LDNO 132kV/EHV: Small Non Domestic Off Peak (related MPAN)		4	0.037						
LDNO 132kV/EHV: LV Medium Non-Domestic		5-8	0.053	0.029		0.57			

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO 132kV/EHV: LV Sub Medium Non-Domestic		5-8	0.071	0.045		-			
LDNO 132kV/EHV: HV Medium Non-Domestic		5-8	0.067	0.050		11.16			
LDNO 132kV/EHV: LV Network Domestic		-	0.205	0.046	0.028	0.09			
LDNO 132kV/EHV: LV Network Non-Domestic Non-CT		-	0.195	0.045	0.028	0.12			
LDNO 132kV/EHV: LV HH Metered		0	0.158	0.040	0.027	0.46	0.05	0.07	0.004
LDNO 132kV/EHV: LV Sub HH Metered		0	0.171	0.055	0.044	0.26	0.14	0.17	0.003
LDNO 132kV/EHV: HV HH Metered		0	0.152	0.058	0.049	4.45	0.18	0.22	0.003
LDNO 132kV/EHV: NHH UMS category A		8	0.050						
LDNO 132kV/EHV: NHH UMS category B		1	0.055						
LDNO 132kV/EHV: NHH UMS category C		1	0.073						
LDNO 132kV/EHV: NHH UMS category D		1	0.046						
LDNO 132kV/EHV: LV UMS (Pseudo HH Metered)		0	0.346	0.047	0.036				
LDNO 132kV/EHV: LV Generation NHH or Aggregate HH		8	-0.025			-			
LDNO 132kV/EHV: LV Sub Generation NHH		8	-0.025			-			
LDNO 132kV/EHV: LV Generation Intermittent		0	-0.025			-			0.006
LDNO 132kV/EHV: LV Generation Non-Intermittent		0	-0.193	-0.020	-0.001	-			0.006
LDNO 132kV/EHV: LV Sub Generation Intermittent		0	-0.025			-			0.006
LDNO 132kV/EHV: LV Sub Generation Non-Intermittent		0	-0.193	-0.020	-0.001	-			0.006
LDNO 132kV/EHV: HV Generation Intermittent		0	-0.036			7.55			0.011
LDNO 132kV/EHV: HV Generation Non-Intermittent		0	-0.288	-0.026	-0.001	7.55			0.011

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
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		5-8	-	-		-			
LDNO 132kV: HV Medium Non-Domestic		5-8	-	-		-			
LDNO 132kV: LV Network Domestic		-	-	-	-	-			
LDNO 132kV: LV Network Non-Domestic Non-CT		-	-	-	-	-			
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 or Aggregate HH		8	-			-			

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVAh
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		5-8	-	-		-			
LDNO 0000: HV Medium Non-Domestic		5-8	-	-		-			
LDNO 0000: LV Network Domestic		-	-	-	-	-			
LDNO 0000: LV Network Non-Domestic Non-CT		-	-	-	-	-			
LDNO 0000: LV HH Metered		0	-	-	-	-	-	-	-
LDNO 0000: LV Sub HH Metered		0	-	-	-	-	-	-	-
LDNO 0000: HV HH Metered		0	-	-	-	-	-	-	-

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge (HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
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 or Aggregate HH		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 in "SP Distribution Area (GSP Group \_N)"

LLF time periods:

Scottish Hydro Electric Power Distribution plc - Illustrative LLFs in SP Distribution Area (GSP Group _N) for year beginning 1st April 2020				
Time periods	Period 1	Period 2	Period 3	Period 4
	Winter Weekday Peak	Winter Weekday	Other	Night
Monday to Friday March to October			07:30 – 23:30	23:30 – 07:30
Monday to Friday November to February	16:00 – 19:00	07:30 – 16:00 19:00 – 20:00	20:00 – 23:30	23:30 – 07:30
Saturday and Sunday All Year			07:30 – 23:30	23:30 – 07:30
Notes	All the above times are in UK Clock time			

Generic demand and generation LLFs					
Metered voltage, respective periods and associated LLFCs					
Metered voltage	Period 1	Period 2	Period 3	Period 4	Associated LLFC
Low-voltage network	1.126	1.112	1.098	1.083	380-385, 389, 400-404, 407-415, 417-425, 427-441, 443-445 / 387, 390, 391, 392, 396, 303, 323
Low-voltage substation	1.048	1.046	1.044	1.045	377, 378 / 393, 394, 397, 398
High-voltage network	1.030	1.029	1.025	1.023	379, 386, 416, 426 / 388, 395, 405, 406
High-voltage substation	1.013	1.013	1.013	1.013	
33kV generic Import	1.005	1.005	1.004	1.003	
33kV generic Export	1.000	1.000	1.000	1.000	

EHV site specific LLFs					
Demand					
Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC

EHV sites specific LLFs					
Generation					
Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC

Annex 6 – Charges for New or Amended EHV Properties in “SP Distribution Area (GSP Group \_N)”

Scottish Hydro Electric Power Distribution plc - Effective from 1st April 2020 - Final new or amended EHV charges in SP Distribution Area (GSP Group _N)													
Effective from date	Import LLFC	Import MPANs/MSIDs	Export LLFC	Export MPANs/MSIDs	Name	Import Super Red unit charge (p/kWh)	Import fixed charge (p/day)	Import capacity charge (p/kVA/day)	Import exceeded capacity charge (p/kVA/day)	Export Super Red unit charge (p/kWh)	Export fixed charge (p/day)	Export capacity charge (p/kVA/day)	Export exceeded capacity charge (p/kVA/day)

Scottish Hydro Electric Power Distribution plc - Effective from 1st April 2020 - Final new or amended EHV line loss factors in SP Distribution Area (GSP Group _N)													
Effective from date	Import LLFC	Import MPANs/MSIDs	Export LLFC	Export MPANs/MSIDs	Name	Import LLF period 1	Import LLF period 2	Import LLF period 3	Import LLF period 4	Export LLF period 1	Export LLF period 2	Export LLF period 3	Export LLF period 4