

SP MANWEB PLC

Use of System Charging Statement

NOTICE OF CHARGES

Effective from 1st April 2018

Version 1.1

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
V1.1	8/2/18	Annex 5 updated with 2018/19 LAFs
V1.1	8/2/18	Supplier of Last Resort increases to the Fixed Charges for the Domestic Unrestricted, Domestic Two Rate and LV Domestic Network tariffs (Annex 1). The increase for each of these tariffs is 0.08p/MPAN/day. No other tariffs 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 charges¹ for the use of our Distribution System and to provide the schedule of adjustment factors² that should be applied in Settlement to account for losses from the Distribution System. We have also included guidance notes in Appendix 2 to help improve your understanding of the charges we apply.
- 1.2. 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.
- 1.3. The charges in this statement are calculated using the Common Distribution Charging Methodology (CDCM) for Low Voltage and High Voltage (LV and HV) Designated Properties and the Extra High Voltage (EHV) Distribution Charging Methodology (EDCM) for Designated EHV Properties.
- 1.4. Separate charges are calculated depending on the characteristics of the connection and whether the use of the Distribution System 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.
- 1.5. 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.
- 1.6. All charges in this statement are shown **exclusive** of VAT. Invoices will include VAT at the applicable rate.
- 1.7. The annexes that form part of this statement are also available in spreadsheet format. This spreadsheet contains supplementary information used for charging purposes and a simple model to assist you to calculate charges. This spreadsheet can be downloaded from:

¹ Charges can be positive or negative.

² Also known as Loss Adjustment Factors or Line Loss Factors.

http://www.scottishpower.com/pages/connections_use_of_system_and_metering_services.asp.

Validity period

- 1.8. 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.
- 1.9. When using this charging statement, care should be taken to ensure that the statement or statements covering the period that is of interest are used.
- 1.10. Notice of any revision to the statement will be provided to Users of our Distribution System. The latest statements can be downloaded from:
http://www.scottishpower.com/pages/connections_use_of_system_and_metering_services.asp.

Contact details

- 1.11. If you have any questions about this statement please contact us at this address:

SP Energy Networks, Network Planning & Regulation
Prenton Way
Birkenhead
Merseyside
CH43 3ET

commercial@spenergynetworks.co.uk

Telephone: 0141 614 5779

- 1.12. All enquiries regarding connection agreements and changes to maximum capacities should be addressed to:

SP Energy Networks
Ochil House
10 Technology Avenue
Hamilton International Technology Park
Blantyre
G72 0HT

Email: capacityq@spenergynetworks.co.uk

Telephone: 0141 614 1605

- 1.13. For all other queries please contact our general enquiries telephone number:
0330 10 10 4444

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 Distribution System.
- 2.2. We utilise two billing approaches depending on the type of metering data received. The 'Supercustomer' approach is used for Non-Half Hourly (NHH) metered, NHH unmetered, Half Hourly (HH) metered premises with whole current metering systems and all domestic premises. The 'Site-specific' approach is used for non-domestic Current Transformer (CT) metered premises or pseudo HH unmetered premises.
- 2.3. Typically, NHH metered or HH metered premises with whole current Metering Systems are domestic and small businesses; Premises with non-domestic CT Metering Systems are generally larger businesses or industrial sites; and unmetered premises are normally streetlights.

Supercustomer billing and payment

- 2.4. Supercustomer billing and payment applies to Meter Point Administration Number (MPAN)s registered as NHH metered, NHH unmetered or aggregated HH metered. The Supercustomer approach makes use of aggregated data obtained from Suppliers using the 'Non Half Hourly Distribution Use of System (DUoS) Report' data flow.
- 2.5. Invoices are calculated on a periodic basis and sent to each User for whom we transport electricity through our Distribution System. Invoices are reconciled over a period of approximately 14 months to reflect later and more accurate consumption figures.
- 2.6. 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 'Incorrectly allocated charges' on page 14 if you believe the allocated LLFC or tariff is incorrect.

Supercustomer charges

- 2.7. Supercustomer charges include the following components:

- a fixed charge, pence/MPAN/day; there will only be one fixed charge applied to each MPAN; and
 - unit charges, pence/kWh; more than one unit charge may apply depending on the type of tariff for which the MPAN is registered.
- 2.8. Users who supply electricity to a Customer whose MPAN is registered as Measurement Class A, B, F or G will be allocated the relevant charge structure set out in Annex 1.
- 2.9. Measurement Class A charges apply to Exit/Entry Points where NHH metering is used for Settlement.
- 2.10. Measurement Class B charges apply to Exit Points deemed to be suitable as Unmetered Supplies as permitted in the Electricity (Unmetered Supply) Regulations 2001³ and where operated in accordance with Balancing and Settlement Code (BSC) procedure 520⁴.
- 2.11. Measurement Class F charges apply to Exit/Entry points at domestic premises where HH metering is used for Settlement.
- 2.12. Measurement Class G charges apply to Exit/Entry points at non-domestic premises with whole current metering systems where HH metering is used for Settlement.
- 2.13. Identification of the appropriate charge can be made by cross-reference to the LLFC.
- 2.14. Valid Settlement PC/SSC/Meter Timeswitch Code (MTC) combinations for LLFCs where the Metering System is Measurement Class A and B are detailed in Market Domain Data (MDD).
- 2.15. 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.

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

⁴ Balancing and Settlement Code Procedures on unmetered supplies are available from <https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/>

- 2.16. The time periods for unit charges where the Metering System is Measurement Class A and 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 statement⁵.
- 2.17. The time periods for unit charges where the Metering System is Measurement Class F and G are set out in the table 'Time Bands for Half Hourly Metered Properties' in Annex 1.
- 2.18. The 'Domestic Off-Peak' and 'Small Non-Domestic Off-Peak' charges are additional to either an unrestricted or a two-rate charge.

Site-specific billing and payment

- 2.19. Site-specific billing and payment applies to Measurement Class C, D and E Metering Systems. The site-specific billing and payment approach to Use of System (UoS) billing makes use of HH metering data at premises level received through Settlement.
- 2.20. Invoices are calculated on a periodic basis and sent to each User for whom we transport electricity through our Distribution System. 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.
- 2.21. The charges are applied on the basis of the LLFCs assigned to the MPAN (or the Metering System Identifier (MSID) for Central Volume Allocation (CVA) sites), and the units consumed within the time periods specified in this statement.
- 2.22. 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 'Incorrectly allocated charges' on page 14 if you believe the allocated LLFC or tariff is incorrect. Where an incorrectly applied LLFC is identified, we may at our sole discretion apply the correct LLFC and/or charges.

Site-specific billed charges

- 2.23. Site-specific billed charges may include the following components:
- a fixed charge, pence/MPAN/day or pence/MSID/day;

⁵ SPM - Schedule of charges and other tables.xlsx

- a capacity charge, pence/kVA/day, for Maximum Import Capacity (MIC) and/or Maximum Export Capacity (MEC);
 - an excess capacity charge, pence/kVA/day, if a site exceeds its MIC and/or MEC;
 - unit charges, pence/kWh, more than one unit charge may be applied;
- and
- an excess reactive power charge, pence/kVArh, for each unit in excess of the reactive charge threshold.
- 2.24. Users who wish to supply electricity to Customers whose Metering System is Measurement Class C, D or E or is settled via CVA will be allocated the relevant charge structure dependent upon the voltage and location of the Metering Point.
- 2.25. Measurement Class C, E or CVA charges apply to Exit/Entry Points where HH metering data is used for Settlement purposes for non-domestic sites that have CT metering..
- 2.26. Measurement Class D charges apply to Exit Points deemed to be suitable as Unmetered Supplies as permitted in the Electricity (Unmetered Supply) Regulations 2001⁶ and where operated in accordance with BSC procedure 520⁷.
- 2.27. Fixed charges are generally levied on a pence per MPAN/MSID per day basis.
- 2.28. LV and HV Designated Properties will be charged in accordance with the CDCM and allocated the relevant charge structure set out in Annex 1.
- 2.29. LV and HV Designated Properties which utilise a combination of Intermittent or Non-Intermittent generation technologies metered through a single MPAN/MSID will be allocated the Non-Intermittent generation tariff unless the combined installed capacity, as evidenced in ratings contained in the Connection Agreement, for Intermittent generation technologies is higher than the combined installed capacity for Non-Intermittent generation technologies, in which case the Intermittent generation tariff will be allocated.

⁶ The Electricity (Unmetered Supply) Regulations 2001 available from <http://www.legislation.gov.uk/ukxi/2001/3263/made>

⁷ Balancing and Settlement Code Procedures on unmetered supplies and available from <https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/>

- 2.30. Designated EHV Properties will be charged in accordance with the EDCM and allocated the relevant charge structure set out in Annex 2.
- 2.31. Where LV and HV Designated Properties or Designated 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.
- 2.32. 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 April in any charging year.

Time periods for half hourly metered properties

- 2.33. The time periods for the application of unit charges to LV and HV Designated Properties that are HH metered are detailed in Annex 1. We have not issued a notice to change the time bands.
- 2.34. The time periods for the application of unit charges to Designated EHV Properties are detailed in Annex 2. We have not issued a notice to change the time bands.

Time periods for pseudo half hourly unmetered properties

- 2.35. The time periods for the application of unit charges to Unmetered Supply Exit Points that are pseudo HH metered are detailed in Annex 1. We have not issued a notice to change the time bands.

Application of capacity charges

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

Chargeable capacity

- 2.37. The chargeable capacity is, for each billing period, the MIC/MEC, as detailed below.
- 2.38. The MIC/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/MEC will be allowed for a 12 month period.
- 2.39. Reductions to the MIC and/or MEC may only be permitted once in a 12 month period. Where the MIC and/or MEC is reduced the new lower level will be agreed with reference to the level of the Customer's maximum demand. The new MIC and/or 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.

- 2.40. 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 us using the contact details in section 1.

Exceeded capacity

- 2.41. 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 used. This will be charged for the full duration of the billing period in which the breach occurs.

Demand exceeded capacity

$$\text{Demandexceeded capacity} = \max(2 \times \sqrt{AI^2 + \max(RI, RE)^2} - MIC, 0)$$

Where:

AI = Active import (kWh)

RI = Reactive import (kVArh)

RE = Reactive export (kVArh)

MIC = Maximum import capacity (kVA)

- 2.42. Only reactive import and reactive export values occurring at times of active import are used in the calculation. For sites which are importing and exporting in the same HH, i.e. where active import is not equal to zero and active export is not equal to zero, use zero for reactive import and reactive export when calculating capacity taken.
- 2.43. This calculation is completed for every half hour and the maximum value from the billing period is applied.

Generation exceeded capacity

$$\text{Generationexceeded capacity} = \max(2 \times \sqrt{AE^2 + \max(RI, RE)^2} - MEC, 0)$$

Where:

AE = Active export (kWh)

RI = Reactive import (kVArh)

RE = Reactive export (kVArh)

MEC = Maximum export capacity (kVA)

- 2.44. Only reactive import and reactive export values occurring at times of active export are used in the calculation. For sites which are importing and exporting in the same HH, i.e. where active import is not equal to zero and active export is not equal to zero, use zero for reactive import and reactive export when calculating capacity taken.
- 2.45. 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

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

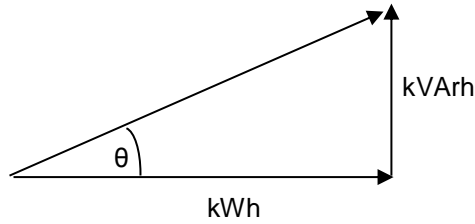
Minimum capacity levels

- 2.47. There is no minimum capacity threshold.

Application of charges for excess reactive power

- 2.48. When an individual HH metered MPAN's reactive power (measured in kVArh) at LV and HV Designated 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.
- 2.49. Power Factor is calculated as follows:

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



2.50. The chargeable reactive power is calculated as follows:

Demand chargeable reactive power

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

Where:

AI = Active import (kWh)

RI = Reactive import (kVArh)

RE = Reactive export (kVArh)

2.51. Only reactive import and reactive export values occurring at times of active import are used in the calculation. For sites which are importing and exporting in the same HH i.e. where active import is not equal to zero and active export is not equal to zero, no calculation for that HH is made and the result for that HH would be zero.

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

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

Generation chargeable reactive power

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

Where:

AE = Active export (kWh)

RI = Reactive import (kVArh)

RE = Reactive export (kVArh)

- 2.54. Only reactive import and reactive export values occurring at times of active export are used in the calculation. For sites which are importing and exporting in the same HH i.e. where active import is not equal to zero and active export is not equal to zero, no calculation for that HH is made and the result for that HH would be zero.
- 2.55. The square root calculation will be to two decimal places.
- 2.56. This calculation is completed for every half hour and the values summated over the billing period.

Incorrectly allocated charges

- 2.57. 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, metering information and, for some tariffs, the metering location. Where an MPAN/MSID is used for export purposes, the type of generation (intermittent or non-intermittent) also determines the allocation of charges.
- 2.58. 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.
- 2.59. 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.
- 2.60. If it has been identified that a charge may have been incorrectly allocated due to the metering information and/or data then a request for investigation should be made to the Supplier.
- 2.61. Where it has been identified that a charge may have been incorrectly allocated due to the voltage of connection, import/export details or metering location then 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; 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.

- 2.62. 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.
- 2.63. Where we agree that the current LLFC/charge should be changed, then we will allocate the appropriate set of charges for the connection. Any adjustment will be applied from the date of the request, back to the date of the incorrect allocation or; up to the maximum period specified by the Limitation Act (1980) in England and Wales, which covers a six year period from the date of request, and the Prescription and Limitation (Scotland) Act 1973, which covers a five year period from the date of request; whichever is the shorter.
- 2.64. Any credit or additional charge will be issued to the relevant Supplier(s) who were effective during the period of the change.
- 2.65. 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 from the date of request.

Generation charges for pre-2005 designated EHV properties

- 2.66. Designated EHV Properties that were connected to the Distribution System under a pre-2005 connection charging policy are eligible for exemption from UoS charges for generation unless one of the following criteria has been met:
- 25 years have passed since their first energisation/connection date (i.e. Designated 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 use of system 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 Designated EHV Property has provided notice to us that they wish to opt in to UoS charges for generation.

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

- 2.67. Furthermore, if an exempt Customer makes an alteration to its export requirement then the Customer may be eligible 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 UoS charges as with other non-exempt generators.

Provision of billing data

- 2.68. Where HH metering data is required for UoS charging and this is not provided in accordance with the BSC or the Distribution Connection and Use of System Agreement (DCUSA), such metering data shall be provided to us by the User of the system in respect of each calendar month within five working days of the end of that calendar month.
- 2.69. 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.
- 2.70. 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 D0036⁸ (as agreed with us). The data shall be emailed to [UOS ADMINISTRATORS@spenergynetworks.co.uk](mailto:UOS_ADMINISTRATORS@spenergynetworks.co.uk).
- 2.71. 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 Exempt Distribution 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.

Out of area use of system charges

- 2.72. We do not operate networks outside our Distribution Services Area

⁸ MRA Data Transfer Catalogue available from <https://dtc.mrasco.com/>

Licensed distribution network operator charges

- 2.73. Licensed Distribution Network Operator (LDNO) charges are applied to LDNOs who operate Embedded Networks within our Distribution Services Area.
- 2.74. The charge structure for LV and HV Designated Properties 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. The relevant charge structures are set out in Annex 4.
- 2.75. Where a NHH metered MPAN has an invalid Settlement combination, the 'LDNO LV: 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 LV: Domestic Unrestricted' fixed and unit charges will be applied for each invalid SSC/TPR combination.
- 2.76. The charge structure for Designated EHV Properties embedded in networks operated by LDNOs will be calculated individually using the EDCM. The relevant charge structures are set out in Annex 2.
- 2.77. For Nested Networks the relevant charging principles set out in DCUSA Schedule 21⁹ will apply. <http://www.dcusa.co.uk/SitePages/Documents/DCUSA-Document.aspx>

Licence exempt distribution networks

- 2.78. The Electricity and Gas (Internal Market) Regulations 2011¹⁰ 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.
- 2.79. 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.

⁹ The Distribution and Connection Use of System Agreement (DCUSA) available from <http://www.dcusa.co.uk/SitePages/Documents/DCUSA-Document.aspx>

¹⁰ The Electricity and Gas (Internal Market) Regulations 2011 available from <http://www.legislation.gov.uk/ukxi/2011/2704/contents/made>

2.80. Licence exempt distribution networks owners can provide third party access using either full settlement metering or the difference metering approach.

Full settlement metering

2.81. 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 the licensed Distribution System and the exempt distribution network.

2.82. In this approach our UoS charges will be applied to each MPAN.

Difference metering

2.83. 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 exempt distribution network will have their own MPAN and must have a HH Metering System.

Gross settlement

2.84. Where one of our MPANs (prefix 13) is embedded within a licence exempt distribution network connected to our Distribution System, 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 Distribution System. No charges will be levied by us directly to the Customer or Supplier of the embedded MPAN(s) connected within the licence exempt distribution network.

2.85. 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 uosadministrators@scottishpower.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”.
- 2.86. 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 the distribution system

- 3.1. Tables listing the charges for use of our Distribution System 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 http://www.scottishpower.com/pages/connections_use_of_system_and_metering_services.asp
- 3.3. Annex 1 contains charges applied to LV and HV Designated Properties.
- 3.4. Annex 2 contains the charges applied to our Designated EHV Properties and charges applied to LDNOs for Designated EHV Properties connected within their embedded Distribution System.
- 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 Designated Properties connected in their embedded Distribution System.

4. Schedule of line loss factors

Role of line loss factors in the supply of electricity

- 4.1. Electricity entering or exiting our Distribution System is adjusted to take account of energy that is lost¹¹ 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 Factors¹² (LLFs) and providing these to Elexon. Elexon is the company that manages the BSC. This code covers the governance and rules for the balancing and settlement arrangements.
- 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 BSC procedure 128. BSCP128 sets out the procedure 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 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 Designated EHV Properties in the EDCM. The definition used for LLF purposes can be found in our LLF methodology.

¹¹ 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.

¹² Also referred to as Loss Adjustment Factors.

- 4.7. The Elexon website <http://www.elexon.co.uk/reference/technical-operations/losses/> contains more information on LLFs. This page also has links to BSCP128 and to our LLF methodology.

Publication of line loss factors

- 4.8. The LLFs used in Settlement are published on the Elexon portal website, www.elexonportal.co.uk. 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. The BSCP128 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. Illustrative LLFs based on the latest submitted LLFs are provided in Annex 5 of this statement. These illustrative LLFs are provided with reference to the metered voltage or associated LLFC for generic LLFs and by reference to the LLFCs for site-specific LLFs. Each LLF is applicable to a defined time period.
- 4.11. As this charging statement is published a complete year before the LLFs have been published it is important to note that the LLFs provided in this statement are for illustration only and may be revised during the BSCP128 process.
- 4.12. 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 Designated EHV Properties

EDCM network group costs

- 5.1. A table is provided in the accompanying spreadsheet which shows the underlying FCP network group costs used to calculate the current EDCM charges. This spreadsheet “SPM – Schedule of Charges and Other Tables.xlsx” is available to download from our website.
- 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. 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 our Distribution System which may affect charges.

Charges for new Designated EHV Properties

- 5.3. Charges for any new Designated 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.
- 5.4. The form of the addendum is detailed in Annex 6 to this statement.
- 5.5. The addendum will also be sent to all relevant DCUSA parties (i.e. the registered Supplier) and where requested the Customer.
- 5.6. The new Designated EHV Properties’ charges will be added to Annex 2 in the next full statement released.

Charges for amended Designated EHV Properties

- 5.7. Where an existing Designated EHV Property is modified and energised in the charging year, we may revise the EDCM charges for the modified Designated 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. The modified Designated EHV Property charges will be added to Annex 2 in the next full statement released.

Demand-side management

- 5.8. 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 Manweb, whereby part or all of your MIC will become interruptible by us for active network management purposes other than normal planned outages.

- 5.9. The DSM Agreement will be based upon a contractual commitment by the customer to materially reduce their MIC in certain time periods (determined by SP Manweb) 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.
- 5.10. 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 Commercial team:

SP Manweb Plc
Network Planning & Regulation
Prenton Way
Birkenhead
Merseyside
CH43 3ET
Email: commercial@spenergynetworks.co.uk

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. We reserve the right to impose payment default remedies. The remedies are as set out in DCUSA where applicable or else as detailed in the following paragraph.
- 7.2. 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.
- 7.3. Our administration charges are detailed in the following table. These charges are set at a level which is in line with the Late Payment of Commercial Debts Act;

<http://www.legislation.gov.uk/uksi/2002/1674/regulation/2/made>

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. None

Appendix 1 - Glossary

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

Term	Definition
All-the-way Charge	A charge that is applicable to an end user rather than an LDNO. An end user in this context is a Supplier/User who has a registered MPAN or MSID and is using the Distribution System to transport energy on behalf of a Customer.
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 www.elexon.co.uk/ELEXON Documents/trading_arrangements.pdf .
Common Distribution Charging Methodology (CDCM)	The CDCM used for calculating charges to Designated Properties as required by standard licence condition 13A of the electricity distribution licence.
Connection Agreement	An agreement between an LDNO and a Customer which provides that that 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 who, 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>
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.

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><tr><th>ID</th><th>Distribution Service Area</th><th>Company</th></tr><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>Energetics 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></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	Energetics 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
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	31	All	UK Power Distribution Ltd																																																																
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
Distribution Network Operator (DNO)	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.
Distribution Services Area	The area specified by the Gas and Electricity Markets Authority within which each DNO must provide specified distribution services.
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"> • Grid Supply Points or generation sets or other entry points <p>to the points of delivery to:</p> <ul style="list-style-type: none"> • 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 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.
EHV Distribution Charging Methodology (EDCM)	The EDCM used for calculating charges to Designated EHV Properties as required by standard licence condition 13B of the Electricity Distribution Licence.
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 LDNO	This refers to an LDNO operating a Distribution System which is embedded within another Distribution System.
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 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).

Term	Definition
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 National Grid Electricity Transmission system and the licensee's distribution system at which electricity flows to or from the Distribution System.
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.
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. These include wind, tidal, wave, photovoltaic and small hydro.
Invalid Settlement Combination	A Settlement combination that is not recognised as a valid combination in market domain data - see https://www.elexonportal.co.uk/MDDVIEWER .
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 in respect of electricity distribution activities in Great Britain.
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.

Term	Definition
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.
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"> • Measurement class A – non-half hourly metering equipment; • Measurement class B – non-half hourly unmetered supplies; • Measurement class C – half hourly metering equipment at or above 100kW premises; • Measurement class D – half hourly unmetered supplies; • Measurement class E – half hourly metering equipment below 100kW premises with CT; • Measurement class F – half hourly metering equipment at below 100kW premises with CT or whole current, and at domestic premises; and • Measurement class G – half hourly metering equipment at below 100kW premises with whole current and not at domestic premises.
Meter Timeswitch Code (MTC)	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.
Metering Point	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'.
Metering Point Administration Number (MPAN)	A number relating to a Metering Point under the MRA.
Metering System	Particular commissioned metering equipment installed for the purposes of measuring the quantities of exports and/or imports at the exit point or entry point.

Term	Definition
Metering System Identifier (MSID)	MSID is a term used throughout the BSC and its subsidiary documents and has the same meaning as MPAN as used under the MRA.
Master Registration Agreement (MRA)	The MRA is an Agreement that sets out terms for the provision of Metering Point Administration Services (MPAS) Registrations, and procedures in relation to the Change of Supplier to any premises/metering point.
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→primary nested DNO→ secondary nested DNO→customer).
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. The generator can choose when to operate, and bring more benefits to the network if it runs at times of high load. These include combined cycle gas turbine (CCGT), gas generators, landfill, sewage, biomass, biogas, energy crop, waste incineration and combined heat and power (CHP).
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.

Term	Definition
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 520 ¹³ .
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 DNO e.g. a supplier, generator or other LDNO.

¹³ Balancing and Settlement Code Procedures are available from <http://www.elexon.co.uk/pages/bscps.aspx>

Appendix 2 - Guidance notes¹⁴

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 property 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.

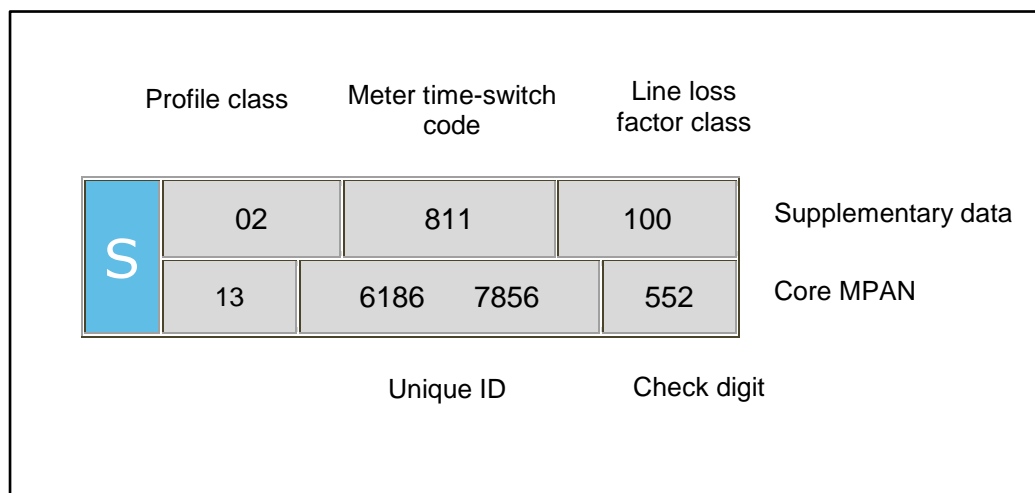
Meter point administration

- 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'. 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.

¹⁴ These guidance notes are provided for additional information and do not form part of the application of charges.

- 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.

Full MPAN diagram



- 1.8. Generally, you will only need to know the Distributor ID and line loss factor class 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 SP Manweb is 13. 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 and 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 13 are provided in this statement.
- 1.13. You can identify your charges by referencing your line loss factor class, from Annex 1. If the MPAN is for a Designated EHV Property, then the charges will be found in Annex 2. In a few instances, the charges may be contained in Annex 3. When identifying charges in Annex 2, please note that some line loss factor classes have more than one charge. In this instance you will need to select the correct charge by cross referencing with the core MPAN 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:

http://www.scottishpower.com/pages/connections_use_of_system_and_metering_services.asp

Reducing your charges

- 1.1. 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 peak periods

and generation credits more beneficial, although the ability to directly benefit will be linked to the structure of your supply charges.

- 1.2. 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

- 1.3. 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.
- 1.4. Reactive Power (kVAh) 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.
- 1.5. 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.
- 1.6. 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.
- 1.7. 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 EDCM charges

- 1.8. A site classified as a Designated EHV Property is subject to a locational based charging methodology (referred to as EDCM) for higher voltage network users. Distributors use two approved approaches: Long Run Incremental Cost (LRIC) and Forward Cost Pricing (FCP) and we use the FCP. The EDCM will apply to Customers connected at Extra High Voltage or connected at High Voltage and metered at a high voltage substation.
- 1.9. EDCM charges and credits are site-specific, reflecting the degree to which the local and higher voltage networks have the capacity to serve more demand or generation without the need to upgrade the electricity infrastructure. The charges also reflect the networks specifically used to deliver the electricity to the site as well as the usage at the site. Generators with non-intermittent output and deemed to be providing beneficial support to our networks may qualify to receive credit.
- 1.10. The charges under the EDCM comprise of the following individual components:
- a) **Fixed charge** - 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 the relevant FCP component, the National Grid Electricity Transmission cost and other regulated 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 1.12

The FCP cost is locational and reflects our assessment of future network reinforcement necessary at the voltage of connection (local) and beyond at all higher voltages (remote) relevant to the customer's connection. This results in the allocation of higher costs in more capacity congested parts of the network reflecting the greater likelihood of future reinforcement in these areas, and the allocation of lower costs in less congested parts of the network. The local FCP cost is included in the capacity charge.

Our regulated costs include direct and indirect operational costs and a residual amount to ensure recovery of our regulated allowed revenue. The capacity charge recovers these costs using the customer usage profile and the relevant assets being used to transport electricity between the source substation and customer's Metering Point.

c) **Super-red unit charge (pence/kWh)** - This charge recovers the remote FCP component. The charge is positive for import and 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.

- 1.11. Future charge rates may be affected by consumption during the Super-red period, therefore reducing consumption in the Super-red time period may be beneficial.
- 1.12. **Reactive Power** -The EDCM does not include a separate charge component for any reactive power flows (kVAr) for either demand or generation. However, the EDCM 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.

Annex 1 - Schedule of charges for use of the distribution system by LV and HV Designated Properties

SP Manweb - Effective from 1 April 2018 - Final LV and HV charges

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/kVAh	Closed LLFCs
Domestic Unrestricted*	101, 102	1	2.844			3.69				
Domestic Two Rate*	103, 105, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 131, 132, 133, 134, 147, 148, 149, 150	2	3.305	1.158		3.69				145, 146
Domestic Off Peak (related MPAN)	104, 106, 130, 153, 155	2	1.158							135, 136, 137, 138, 140, 141, 142, 143
Small Non Domestic Unrestricted	201, 202, 203, 209	3	2.957			4.64				207
Small Non Domestic Two Rate	205, 211, 231, 232	4	3.073	1.081		4.64				208, 210
Small Non Domestic Off Peak (related MPAN)	212	4	1.099							233, 234, 235, 236, 237
LV Medium Non-Domestic	401, 402	5-8	2.978	1.050		19.85				
LV Sub Medium Non-Domestic	403, 404	5-8	2.990	1.054		24.31				
HV Medium Non-Domestic		5-8	2.100	0.998		188.23				
LV Network Domestic*	180	0	11.815	1.989	1.063	3.69				
LV Network Non-Domestic Non-CT	280	0	12.769	2.089	1.082	4.64				
LV HH Metered	511, 591	0	9.850	1.667	1.028	18.74	2.41	4.28	0.371	501
LV Sub HH Metered	513, 592	0	8.449	1.317	1.007	6.61	5.03	6.96	0.264	503
HV HH Metered	515, 593	0	6.642	1.094	0.967	100.14	3.95	6.48	0.172	505
NHH UMS category A	900	8	2.337							904, 912, 913
NHH UMS category B	901	1	2.661							905
NHH UMS category C	902	1	3.855							906
NHH UMS category D	903	1	2.105							907
LV UMS (Pseudo HH Metered)	910	0	22.001	2.189	1.352					
LV Generation NHH or Aggregate HH	781, 782, 783, 784, 785	8&0	-1.192			0.00				
LV Sub Generation NHH	780	8	-1.075			0.00				
LV Generation Intermittent	786, 787	0	-1.192			0.00			0.314	
LV Generation Intermittent no RP charge	TBA	0	-1.192			0.00				
LV Generation Non-Intermittent	791, 795	0	-8.508	-0.888	-6.170	0.00			0.314	
LV Generation Non-Intermittent no RP charge	TBA	0	-8.508	-0.888	-6.170	0.00				
LV Sub Generation Intermittent	788, 789	0	-1.075			0.00			0.295	
LV Sub Generation Intermittent no RP charge	TBA	0	-1.075			0.00				
LV Sub Generation Non-Intermittent	792, 796	0	-7.823	-0.760	-6.198	0.00			0.295	
LV Sub Generation Non-Intermittent no RP charge	TBA	0	-7.823	-0.760	-6.198	0.00				
HV Generation Intermittent	770, 771	0	-0.708			73.12			0.225	
HV Generation Intermittent no RP charge	TBA	0	-0.708			73.12				
HV Generation Non-Intermittent	793, 797	0	-5.809	-0.325	-6.129	73.12			0.225	
HV Generation Non-Intermittent no RP charge	TBA	0	-5.809	-0.325	-6.129	73.12				

*Supplier of Last Resort increases to the Fixed Charges for the Domestic Unrestricted, Domestic Two Rate and LV Domestic Network tariffs. The increase for each of these tariffs is 0.08p/MPAN/day. No other tariffs affected by this change.

Annex 2 - Schedule of charges for use of the distribution system by Designated EHV Properties (including LDNOs with Designated EHV Properties/end-users)

SP Manweb - Effective from 1 April 2018 - Final EDCM charges														
Time Periods for Designated 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 Unique Identifier	LLFC	Import MPANs/MSIDs	Export Unique Identifier	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)
803	803	1300035361194	603	603	1300050649372	Shell Stanlow		18967.83	4.71	4.71		1895.33	0.05	0.05
804	804	1300035352942				Jaguar & Land Rover	0.557	6930.88	7.28	7.28				
805	805	1300035359423				Innospec		671.80	3.95	3.95				
806	806	1300051060972	606	606	1300051060981	Bridgewater Paper		63.98	2.79	2.79				
807	807	1300035359752				General Motors		11575.78	4.31	4.31				
808	808	1300035360066				TATA Steel		30610.36	5.82	5.82				
809	809	1300035362480				Urenco			4.63	4.63				
810	810	1300051694818	618	618	1300060704603	Ineos Chlor Ltd (Lostock)		10486.59	1.81	1.81		1603.55	0.05	0.05
811	811	1300060704073	655	655	1300060704082	SafeGuard Bradwell	1.780	93.80	4.00	4.00		2749.26	0.05	0.05
812	812	1300035356130				Knauf Insulation	0.560	1350.84	7.69	7.69				
813	813	1300035359585				Air Products		305.66	6.78	6.78				
814	814	1300035359619				Shell Chemicals		4779.29	7.82	7.82				
815	815	1300035359780				GrowHow		6931.67	7.64	7.64				
816	816	1300053536398				Castle Cement		759.23	3.99	3.99				
817	817	1300035361992	648	648	1300060640474	Kronospan		3764.61	10.71	10.74		309.46	0.05	0.05
819	819	1300035365082	619	619	1300051136210	Albion Inorganic	2.032	132.80	1.95	1.95				
820	820	13000606563740	658	658	13000606563759	Tyn dryfol PV		6.40	4.21	4.21		1920.66	0.05	0.05
821	821	1300035367967	621	621	1300050649336	BHP		8165.38	2.65	2.65				
822	822	13000606251601				Hole House Farm		7586.72	5.25	5.25				
823	823	1300060652610	659	659	1300060652629	Williams Farm Solar Park		5.38	3.69	3.69		591.45	0.05	0.05
824	824	1300054940674	604	604	1300054940683	Port of Liverpool		22.01	2.21	2.21		1320.35	0.05	0.05
826	826	1300060579173	661	661	1300060579182	Combermere Abbey PV		11.37	4.79	4.79		1985.92	0.05	0.05
827	827	1300052785147				Kimberley Clark		441.81	11.34	11.34				
828	828	1300060075390	628	628	1300060075405	Amegni		6.33	2.00	2.00		493.82	0.05	0.05
829	829	1300035400611	629	629	1300038004507	Salt Union		738.63	2.32	2.32				
830	830	1300060584270	681	681	1300060584280	Parciau Solar Park		5.06	3.54	3.54		601.83	0.05	0.05
831	831	1300035437700				Ineos Chlor Ltd (Percival Lane)		331.17	5.83	5.83				
833	833	1300035361803				Toyota		2252.03	4.30	4.30				
834	834	1300051028551				Warringham Gas Storage		3618.64	5.47	5.47				
835	835	1300050648875	635	635	1300050931602	Arpley Landfill	1.780	7.61	2.91	2.91				
836	836	1300035360800				Amcor		1599.80	8.53	8.53				
838	838	1300052122840	638	638	1300052122859	Cemimaes C		5.83	3.13	3.13				
839	839	1300051822667	639	639	1300051821478	PG Strand Gate		1205.26	4.71	4.71				
840	840	1300052545267	640	640	1300052545276	Moel Maelogan (A)		13.52	2.77	2.77				
841	841	1300052545285	641	641	1300052545294	Moel Maelogan (B)		6.80	2.85	2.85				
842	842	1300053022082	642	642	1300053022091	North Hoyle		332.59	1.81	1.81				
843	843	1300053466350	643	643	1300053466369	Cefn Croyes (3)		2589.24	1.92	1.92				
844	844	1300053466378	644	644	1300053466387	Cefn Croyes (4)		2594.18	1.91	1.91				
845	845	1300053834682	645	645	1300053834691	Tir Mostyn		247.47	2.66	2.66				
846	846	1300053862801	646	646	1300053862796	Mynydd Clogau		6.43	2.48	2.48				

847	847	1300053962107	647	647	1300053962116	Granox	0.677	140.73	3.33	3.33				
848	848	1300060499085	651	651	1300060499094	Tai Moelion		3.19	5.07	5.07		955.97	0.05	0.05
849	849	1300054624390	649	649	1300054624405	Braich Ddu		15.16	3.12	3.12				
850	850	13000606668363	652	652	1300060668372	Wldhes Biomass	0.516	567.99	3.54	3.54	-0.527	3550.27	0.05	0.05
851	851	1300054933348	611	611	1300054914140	Moel Maeioglan 2		5.20	2.57	2.57		304.04	0.05	0.05
852	852	1300053310848				Trafalgar Dock		1577.38	4.70	4.70				
853	853	1300060075371	653	653	1300060075380	CEW	0.516	221.63	4.54	4.54	-1.935	4634.82	0.05	0.05
854	854	1300060138720	654	654	1300060138739	Wern Ddu		40.61	2.97	2.97		1969.71	0.05	0.05
856	856	1300060102617	656	656	1300060102608	Rhyl Flats		132.40	2.00	2.00		12180.68	0.05	0.05
857	857	1300060508758				Seaforth Liverpool Dock 2		53701.76	7.55	7.55				
865	865	1300035438944	665	665	1300038004491	Cemmaes B		5.06	3.35	3.35				
866	866	1300037983737	666	666	1300037983746	Penrhyddlan		12.01	2.88	2.88		1401.60	0.05	0.05
867	867	1300037983755	667	667	1300037983764	Llidyrtwaun		11.22	2.84	2.84		1402.39	0.05	0.05
868	868	1300035368906	668	668	1300050649381	Rhyd y Groes		69.29	2.86	2.86		565.86	0.05	0.05
869	869	1300035370393	669	669	1300050649070	Llangwyrflon		21.56	2.83	2.83		2652.45	0.05	0.05
870	870	1300060308295				Storenergy (Lostock)		1175.32	10.02	10.02				
871	871	1300037983996	671	671	1300037984002	Rheidol		64.35	1.89	1.89		788.27	0.05	0.05
872	872	1300037983913	672	672	1300037983922	Carno B		68.74	1.95	1.95				
873	873	1300037983899	673	673	1300037983904	Carno A		24.40	2.06	2.06				
874	874	1300035438572	674	674	1300050649390	Trysglwyn		10.11	3.03	3.03				
875	875	1300050649406	675	675	1300050649415	Llanabo		5.02	3.02	3.02				
876	876	1300060701106	676	676	1300060701115	Ebnal Lodge PV		6.05	3.68	3.68		1008.17	0.05	0.05
877	877	1300053593216				Quinn Glass		2483.72	8.09	8.09				
878	878	1300054122122				Liverpool Int Bus Park		3366.79	3.85	3.85				
880	880	1300060621588	670	670	1300060621597	Twemlows Hall PV		45.68	3.68	3.68		6212.52	0.05	0.05
881	881	1300060626275	679	679	1300060626284	Teyrdan		0.68	3.83	3.83		97.19	0.05	0.05
882	882	1300060631656	684	684	1300060631665	Parc Adfer		189.70	3.54	3.54		1601.93	0.05	0.05
883	883	1300060621950	683	683	1300060621959	Hadley Solar Park		0.81	3.68	3.68		97.06	0.05	0.05
886	886	1300060657830	686	686	1300060657840	Charity Farm Solar Park		0.44	3.68	3.68		97.43	0.05	0.05
887	887	1300035619768	687	687	1300050652905	Mynydd Gordau		64.74	2.72	2.72				
888	888	TBA				Winsford Salt	1.780	7137.24	6.94	6.94				
889	889	1300060626293	678	678	1300060626309	Nefyn		0.61	4.32	4.32		97.26	0.05	0.05
890	890	1300060621987	697	697	1300060621996	Frodsham WF 1		2.25	4.02	4.02		3375.97	0.05	0.05
891	891	1300060622002	699	699	1300060622011	Frodsham WF 2		2.25	4.02	4.02		1556.10	0.05	0.05
892	892	1300060609697	692	692	1300060609702	Ince Biomass		34.73	4.02	4.02	-0.666	1771.68	0.05	0.05
893	893	1300060659740	693	693	1300060659759	Kinnel Estate Solar Park		3.23	4.00	4.00		290.38	0.05	0.05
894	894	1300060647600	694	694	1300060647610	Tirgwyn Wind Farm		302.13	2.95	2.95		15650.56	0.05	0.05
895	895	1300060701124	696	696	1300060701133	Kingsmoor Park		148.59	3.69	3.69	-0.210	742.94	0.05	0.05
896	896	1300060673442	616	616	1300060673451	Percival Lane STOR		25.24	3.54	3.54		2019.06	0.05	0.05
897	897	1300060673460	617	617	1300060673489	Stanlow STOR		25.34	2.73	2.73	-0.485	2018.96	0.05	0.05
898	898	1300051694552	698	698	1300051694827	PG Wmington		387.99	1.90	3.18				
899	899	1300060484140				Airbus UK Ltd (33KV)		5650.63	7.23	7.23				
921	921	1300050654248	691	691	1300060208518	Network Rail (Crewe)		7276.56	3.63	3.63		1819.14	0.05	0.05
922	922	1300050654257	682	682	1300060269895	Network Rail (Speke)		2655.38	6.95	6.95	-0.527	885.13	0.05	0.05
923	923	1300050649994				Network Rail (Bankhall)		1153.63	7.86	7.86				
924	924	1300050653040				Network Rail (Bromborough)		738.28	9.62	9.62				
925	925	1300050654220				Network Rail (Shore Road)		4308.61	7.21	7.21				
MSID 7120	MSID 7120	MSID 7120	MSID 7120	MSID 7120	MSID 7120	Shotton Paper		24790.04	2.52	2.52				
MSID 7203	MSID 7203	MSID 7203	MSID 7203	MSID 7203	MSID 7203	Burbo Bank		3956.99						
MSID 0030	MSID 0030	MSID 0030				Risley			11.95	11.95				
MSID 0031/32	MSID 0031/32	MSID 0031/32				Bold			4.16	4.16				
MSID 4532/33	MSID 4532/33	MSID 4532/33	MSID 4532/33	MSID 4532/33	MSID 4532/33	Dolgarrog PS			5.59	5.59	-0.405		0.05	0.05
			MSID 6015	MSID 6015	MSID 6015	Maentwrog PS					-1.099		0.05	0.05
			MSID 4054	MSID 4054	MSID 4054	Cwm Dyli PS					-1.099		0.05	0.05
300	300	1300035348714				Royal London Insurance		167.47	1.82	1.82				
301	301	1300035349160				Amerdale Ltd		167.47	3.18	3.18				
302	302	1300035349461				United Biscuits (UK) Ltd		167.47	6.27	6.27				
303	303	1300035350156				Brocklebank Dock	1.258	167.47	11.00	11.00				
304	304	1300035351949				Bruntwood Limited		167.47	4.97	4.97				
305	305	1300035351958				L'pool Daily Post & Echo		167.47	4.78	4.78				
306	306	1300035352214				University Of Liverpool	0.431	167.47	2.40	2.40				
307	307	1300035352232				Nonvepp Ltd	0.504	167.47	2.20	2.20				
308	308	1300035353050				New Capital Dev Ltd		167.47	9.95	9.95				

309	309	1300035354346				Chiron Vaccines Ltd	0.561	167.47	2.09	2.09			
310	310	1300035356465				Assidoman Print & Pack	3.119	167.47	9.04	9.04			
311	311	1300035356526				Bruntwood Ltd (Warrington)	2.843	167.47	4.08	4.08			
314	314	1300035359567				SCA Limited	0.482	167.47	7.64	7.64			
315	315	1300035359725				IU Water Plc - Sutton Hall	0.501	167.47	7.40	7.40			
316	316	1300035360386				Dairy Crest Ltd	0.147	167.47	2.57	2.57			
317	317	1300035360632				Tetra Pak Manufacturing Uk Ltd	0.215	167.47	7.50	7.50			
318	318	1300035360952				Hydro Aluminium Deeside Ltd	0.224	167.47	6.18	6.18			
319	319	1300035362719				British Polythene Industries Plc	0.925	167.47	7.67	7.67			
320	320	1300035363002				Stanton Land And Marine Ltd	1.655	905.87	3.30	3.30			
321	321	1300035364619				Bombardier UK Ltd	0.874	1476.79	4.68	4.68			
322	322	1300035364707	700	700	1300060416993	Bentley Motor Cars Ltd	0.876	167.47	6.11	6.11		83.74	0.05
323	323	1300035366379				Tarmac Limited	1.538	83.74	3.39	3.39			
324	324	1300035369760				Texplan	0.194	167.47	6.19	6.19			
325	325	1300051555440				SCA	1.693	167.47	10.87	10.87			
326	326	1300052619849				Somerfield Plc	1.910	167.47	6.14	6.14			
328	328	1300035348662				Alliance & Leicester Plc		167.47	6.72	6.72			
329	329	1300035349035				Dairy Crest		167.47	6.57	6.57			
330	330	1300035349044				Yorkshire Copper Tube Ltd		1644.26	2.81	2.81			
331	331	1300035349114				Kodak Ltd		167.47	2.57	2.57			
333	333	1300035349346				Thyssen Krupp (Group)		167.47	4.93	4.93			
334	334	1300035349355				New Horizon Global Ltd		167.47	3.44	3.44			
335	335	1300035349639				Seaforth Commil		167.47	5.75	5.75			
337	337	1300035350680				News International Plc		167.47	3.62	3.62			
338	338	1300035351248				Essex International Limited	0.762	167.47	3.42	3.42			
339	339	1300035351735				Elizabeth II Law Courts		167.47	3.36	3.36			
340	340	1300035351967				Downing Property Services Ltd		167.47	5.19	5.19			
341	341	1300035352739				Canada Dock		167.47	4.50	4.50			
343	343	1300035352970				Liverpool Airport		167.47	9.99	9.99			
344	344	1300035354179				HP Chemie Pelzer Uk Ltd		167.47	7.40	7.40			
345	345	1300035354986				Novelis Uk Ltd	3.030	167.47	9.55	9.55			
346	346	1300035355118				PQ Silicas UK Ltd	3.027	251.21	6.06	6.06			
347	347	1300035355136				Baronet Works	2.998	2466.39	7.67	7.67			
348	348	1300035355749				Unifrax Ltd	1.859	167.47	7.89	7.89			
349	349	1300035355837				Delta Metals	2.019	167.47	2.49	2.49			
350	350	1300035355970				M Baker Recycling Limited	2.109	167.47	12.28	12.28			
351	351	1300035356194				BOC Limited	2.152	167.47	9.34	9.34			
352	352	1300035356380				Daresbury Laboratory		167.47	4.92	4.92			
353	353	1300035356724				Gypsum		3121.05	9.61	9.61			
354	354	1300035356770				Dyson Group Plc	0.540	167.47	9.20	9.20			
356	356	1300035357009				Rockwood Additives Ltd	0.508	167.47	4.75	4.75			
358	358	1300035359600				Greif Uk Ltd	0.642	167.47	5.82	5.82			
359	359	1300035359673				BP International Limited	0.680	167.47	3.55	3.55			
360	360	1300035359799				Shell UK Limited	0.709	167.47	5.81	5.81			
361	361	1300035359901				Owens Corning UK		167.47	10.05	10.05			
362	362	1300035360181				Cadbury Schweppes Plc	0.201	167.47	12.75	12.75			
363	363	1300035360580				Kelloggs Company Of GB Ltd	0.226	167.47	7.78	7.78			
364	364	1300035360679				Bryn Lane Properties Lip	0.208	905.87	1.68	1.68			
365	365	1300035360688				BICC Wrexham	0.246	167.47	8.74	8.74			
366	366	1300035361130				M&S Financial Services	2.316	167.47	6.36	6.36			
367	367	1300035361812				Element Six Production Ltd		167.47	2.24	2.24			
368	368	1300035361983				Barry Callebaut (Uk) Ltd	2.571	167.47	2.66	2.66			
369	369	1300035362295				Caparo Steel Products Ltd	0.225	167.47	3.00	3.00			
370	370	1300035362700				Thermal Ceramics Ltd	0.507	167.47	2.67	2.67			
371	371	1300035362904				Egerton Dock	1.767	15182.47					
372	372	1300035362978				Shell UK	1.893	167.47	6.08	6.08			
373	373	1300035363067				Mobil Sasol		167.47	4.67	4.67			
374	374	1300035363191				Burtons Foods Ltd		167.47	8.32	8.32			
375	375	1300035363225				Unilever UK	0.927	167.47	4.20	4.20			
376	376	1300035363252				Champion Properties LLP		167.47	6.41	6.41			
377	377	1300035363883	719	719	1300060263839	Nestle UK Ltd	0.975	98.07	1.74	1.74		69.40	0.05
378	378	1300035364060				A&P Falmouth Ltd	1.778	1644.26	5.83	5.83			
379	379	1300035364177				Barclays Bank Plc	2.447	167.47	9.37	9.37			
380	380	1300035364256				Harman Technology Limited	2.519	167.47	6.80	6.80			
381	381	1300035364432				Twyford's Bathrooms	1.817	167.47	3.46	3.46			

382	382	1300035364646				Morning Foods Limited	1.831	167.47	8.08	8.08				
383	383	1300035364822				Fisons	2.459	167.47	7.14	7.14				
384	384	1300035365161				N W F Ltd	1.832	167.47	12.11	12.11				
385	385	1300035365240				Limpac Wcb	2.554	167.47	8.13	8.13				
386	386	1300035365287				Britton Group Plc	2.567	167.47	10.24	10.24				
387	387	1300035366494				Synthite	1.629	167.47	11.32	11.32				
388	388	1300035366801				Novar Plc	0.614	167.47	8.88	8.88				
389	389	1300035368232	721	721	1300060267898	Bangor Hospital (Health Sup)		106.90	7.62	7.62	60.58	0.05	0.05	
391	391	1300035368400				Bourne Leisure Limited	1.152	167.47	4.58	4.58				
392	392	1300035368428				Rehau Ltd	1.068	167.47	8.62	8.62				
393	393	1300035370116				University Of Wales	0.763	167.47	15.07	15.07				
394	394	1300035618356				Smiths Group Plc		167.47	8.48	8.48				
395	395	1300038178922				Yardley Plastic		167.47	6.39	6.39				
397	397	1300050455959				Tulip International Ltd	1.052	167.47	4.44	4.44				
398	398	1300050482127				Unilever Research	0.963	167.47	4.70	4.70				
399	399	1300050628390	717	717	1300050867852	Seaforth		24.69	1.47	1.47				
450	450	1300050632704				Decoma-Merplas	0.541	167.47	7.48	7.48				
452	452	1300050955454				Gilbrook Dock		10264.97						
453	453	1300050977573	720	720	1300060574459	IU Water Plc - Woodside	1.743	1546.04	5.72	5.72	98.22	0.05	0.05	
454	454	1300050977670	724	724	1300060638642	IU Water Plc - Bromborough	0.990	1273.25	3.82	3.82	371.01	0.05	0.05	
455	455	1300051438963				S Norton & Co. Ltd	1.275	1644.26	2.10	2.10				
456	456	1300051517481				MOD - RAF Sealand		167.47	4.45	4.45				
457	457	1300051708346				Healthcare Distribution		167.47	5.02	5.02				
458	458	1300052182955				Aluminium Powder Company	0.987	167.47	13.22	13.22				
459	459	1300053398578				Chiron Vaccines	0.548	1644.26	3.46	3.46				
460	460	1300054917684				ESP		167.47	3.57	3.57				
461	461	1300060172544				Neptune (Mann Island)		1644.26	10.83	10.83				
462	462	1300035352260	710	710	1300051349870	L.A.H. Teaching Hospital		358.53	2.29	2.29				
463	463	1300035354123	711	711	1300052227204	IU Water Plc - Sandon Dock	1.231	570.05	4.18	4.18	-0.697	481.63	0.05	0.05
464	464	1300035355242	712	712	1300053163518	IU Water Plc Gateworth Sewage	3.197	133.50	5.98	5.98	-2.860	33.97	0.05	0.05
465	465	1300035359770	713	713	1300050970114	IU Water Plc - Huntington	2.372	31.65	5.42	5.42				
466	466	1300035401331	714	714	1300052226920	IU Water Plc - Shell Green	0.556	350.69	5.94	5.94				
467	467	1300035353148	715	715	1300052368838	Eli Lilly & Co	0.556	782.25	4.61	4.61				
468	468	1300035355794	703	703	1300050867791	Pilkington Glass - Greengate	1.958	451.49	3.03	3.03				
469	469	1300035355882	704	704	1300050867807	Pilkington Glass - Cowley Hill	1.823	295.26	2.22	2.22				
470	470	1300035355190	718	718	1300054580101	Iceland	2.939	159.10	10.83	10.83	-2.860	8.37	0.05	0.05
471	471	1300035359813				Meadow Foods Ltd	2.336	167.47	7.21	7.21				
472	472	1300035362746				Wirral Hospital		167.47	3.32	3.32				
473	473	1300035366174				Conway & Denbighshire NHS Trust	0.649	167.47	12.00	12.00				
474	474	1300035438261				Morrisons (Dist Centre)	2.570	167.47	7.38	7.38				
475	475	1300060172562				Mersey Travel (Mann Island)		83.74	3.22	3.22				
476	476	1300050712379				Pilkington Glass HO	2.071	167.47	5.93	5.93				
477	477	1300051517515				Mod - Raf Valley	0.945	167.47	10.60	10.60				
478	478	1300051517747				Mod - Shawbury	0.179	83.74	15.31	15.31				
479	479	1300035365640				Crewe Station	1.830	167.47	6.94	6.94				
480	480	1300051747708				Merseyside PTA	1.195	167.47	3.34	3.34				
481	481	1300035356255				Mackamax Primary		83.74	3.78	3.78				
482	482	1300035352906				Whiston Hospital	0.515	167.47	8.51	8.51				
483	483	1300052598765	716	716	1300060245403	Maw Green 2	0.866	2.21	2.29	2.29				
484	484	1300035355999	702	702	1300050867755	Pilkington Glass - Watson Street	2.112	268.90	2.16	2.16				
486	486	1300060340420				BAE Radway	1.759	2292.38	6.07	6.07				
487	487	1300035349480				Aintree Fazakerly Hospital		3120.74	4.55	4.55				
488	488	1300060436633				Unilever (Chester Gates)	0.488	2140.76	5.09	5.09				
489	489	1300060222169				Unilever (Georgia)	0.959	471.63	4.27	4.27				
491	491	1300060610284				Royal Liverpool Hospital		118.97	2.29	2.29				
TBA1	TBA1	TBA1	TBA1	TBA1	TBA1	Queensferry Diesel		15.68	3.54	3.54		348.47	0.05	0.05
TBA2	TBA2	TBA2	TBA2	TBA2	TBA2	Cefn Mawr		1.20	3.68	3.68	-0.188	214.93	0.05	0.05
TBA3	TBA3	TBA3	TBA3	TBA3	TBA3	Four Crosses Diesel		2.52	4.32	4.32	-1.099	504.98	0.05	0.05
TBA4	TBA4	TBA4	TBA4	TBA4	TBA4	Rhosylli Fawr Chwilog		3.42	4.32	4.32		342.48	0.05	0.05
TBA5	TBA5	TBA5	TBA5	TBA5	TBA5	Moss Farm Warringham		5.33	4.79	4.79		2368.70	0.05	0.05
884	884	1300060707491	664	664	1300060707507	Beaufort Road		9.41	3.54	3.54		787.01	0.05	0.05

Annex 3 - Schedule of charges for use of the distribution system by preserved/additional LLF classes

SP Manweb - Effective from 1 April 2018 - Final LV and HV tariffs									
NHH preserved charges/additional LLFCs									
	Closed LLFCs	PCs	Unit charge 1 (NHH) p/kWh	Unit charge 2 (NHH) p/kWh	Unit charge 3 (NHH) p/kWh	Fixed charge p/MPAN/day			
Domestic Two Rate	145, 146	2	3.305	1.158		3.61			
Domestic Off Peak (related MPAN)	135, 136, 137, 138, 140, 141, 142, 143	2	1.158						
Small Non Domestic Unrestricted	207	3	2.957			4.64			
Small Non Domestic Two Rate	208, 210	4	3.073	1.081		4.64			
Small Non Domestic Off Peak (related MPAN)	233, 234, 235, 236, 237	4	1.099						
HV Medium Non-Domestic	405	5-8	2.100	0.998		188.23			
Notes:	<p>Unit time periods are as specified in the SSC.</p> <p>SP Manweb 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 LLFCs									
	Closed LLFCs	PCs	Red/black charge (HH) p/kWh	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
LV HH Metered	501		9.850	1.667	1.028	18.74	2.41	4.28	0.371
LV Sub HH Metered	503		8.449	1.317	1.007	6.61	5.03	6.96	0.264
HV HH Metered	505		6.642	1.094	0.967	100.14	3.95	6.48	0.172
Notes:	<p>Time periods: The time periods for each unit rate where applicable are as indicated on Annex 1</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>								

SP Manweb - Effective from 1 April 2018 - Final LDNO tariffs			
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		16.00 - 20.00	00.00-16.00 20.00-00.00
Notes	All the above times are in UK Clock time		

SP MANWEB PLC

LDNO HV: HV Generation Intermittent		0	-0.708			0.00			0.225
LDNO HV: HV Generation Non-Intermittent		0	-5.809	-0.325	-0.193	0.00			0.225
LDNO HVplus: Domestic Unrestricted		1	0.886			1.12			
LDNO HVplus: Domestic Two Rate		2	1.029	0.361		1.12			
LDNO HVplus: Domestic Off Peak (related MPAN)		2	0.361						
LDNO HVplus: Small Non Domestic Unrestricted		3	0.921			1.45			
LDNO HVplus: Small Non Domestic Two Rate		4	0.957	0.337		1.45			
LDNO HVplus: Small Non Domestic Off Peak (related MPAN)		4	0.342						
LDNO HVplus: LV Medium Non-Domestic		5-8	0.927	0.327		6.18			
LDNO HVplus: LV Sub Medium Non-Domestic		5-8	1.451	0.511		11.80			
LDNO HVplus: HV Medium Non-Domestic		5-8	1.140	0.542		102.22			
LDNO HVplus: LV Network Domestic		-	3.680	0.619	0.331	1.12			
LDNO HVplus: LV Network Non-Domestic Non-CT		-	3.977	0.651	0.337	1.45			
LDNO HVplus: LV HH Metered		0	3.068	0.519	0.320	5.84	0.75	1.33	0.116
LDNO HVplus: LV Sub HH Metered		0	4.100	0.639	0.489	3.21	2.44	3.38	0.128
LDNO HVplus: HV HH Metered		0	3.607	0.594	0.625	54.38	2.15	3.52	0.093
LDNO HVplus: NHH UMS category A		8	0.728						
LDNO HVplus: NHH UMS category B		1	0.829						
LDNO HVplus: NHH UMS category C		1	1.201						
LDNO HVplus: NHH UMS category D		1	0.656						
LDNO HVplus: LV UMS (Pseudo HH Metered)		0	6.852	0.682	0.421				
LDNO HVplus: LV Generation NHH or Aggregate HH		8	-0.578			0.00			
LDNO HVplus: LV Sub Generation NHH		8	-0.584			0.00			
LDNO HVplus: LV Generation Intermittent		0	-0.578			0.00			0.152
LDNO HVplus: LV Generation Non-Intermittent		0	-4.129	-0.431	-0.082	0.00			0.152
LDNO HVplus: LV Sub Generation Intermittent		0	-0.584			0.00			0.160
LDNO HVplus: LV Sub Generation Non-Intermittent		0	-4.249	-0.413	-0.095	0.00			0.160
LDNO HVplus: HV Generation Intermittent		0	-0.708			73.12			0.225
LDNO HVplus: HV Generation Non-Intermittent		0	-5.809	-0.325	-0.193	73.12			0.225
LDNO EHV: Domestic Unrestricted		1	0.632			0.80			
LDNO EHV: Domestic Two Rate		2	0.735	0.257		0.80			
LDNO EHV: Domestic Off Peak (related MPAN)		2	0.257						
LDNO EHV: Small Non Domestic Unrestricted		3	0.657			1.03			
LDNO EHV: Small Non Domestic Two Rate		4	0.683	0.240		1.03			
LDNO EHV: Small Non Domestic Off Peak (related MPAN)		4	0.244						
LDNO EHV: LV Medium Non-Domestic		5-8	0.662	0.233		4.41			
LDNO EHV: LV Sub Medium Non-Domestic		5-8	1.036	0.365		8.42			
LDNO EHV: HV Medium Non-Domestic		5-8	0.814	0.387		72.96			
LDNO EHV: LV Network Domestic		-	2.626	0.442	0.236	0.80			
LDNO EHV: LV Network Non-Domestic Non-CT		-	2.838	0.464	0.241	1.03			
LDNO EHV: LV HH Metered		0	2.189	0.371	0.228	4.17	0.54	0.95	0.082
LDNO EHV: LV Sub HH Metered		0	2.926	0.456	0.349	2.29	1.74	2.41	0.091
LDNO EHV: HV HH Metered		0	2.574	0.424	0.375	38.81	1.53	2.51	0.067
LDNO EHV: NHH UMS category A		8	0.519						
LDNO EHV: NHH UMS category B		1	0.591						
LDNO EHV: NHH UMS category C		1	0.857						
LDNO EHV: NHH UMS category D		1	0.468						
LDNO EHV: LV UMS (Pseudo HH Metered)		0	4.890	0.487	0.301				
LDNO EHV: LV Generation NHH or Aggregate HH		8	-0.413			0.00			
LDNO EHV: LV Sub Generation NHH		8	-0.417			0.00			
LDNO EHV: LV Generation Intermittent		0	-0.413			0.00			0.109
LDNO EHV: LV Generation Non-Intermittent		0	-2.947	-0.308	-0.099	0.00			0.109
LDNO EHV: LV Sub Generation Intermittent		0	-0.417			0.00			0.114
LDNO EHV: LV Sub Generation Non-Intermittent		0	-3.032	-0.295	-0.081	0.00			0.114
LDNO EHV: HV Generation Intermittent		0	-0.505			52.19			0.161
LDNO EHV: HV Generation Non-Intermittent		0	-4.146	-0.232	-0.056	52.19			0.161
LDNO 132kV/EHV: Domestic Unrestricted		1	0.471			0.60			
LDNO 132kV/EHV: Domestic Two Rate		2	0.548	0.192		0.60			
LDNO 132kV/EHV: Domestic Off Peak (related MPAN)		2	0.192						
LDNO 132kV/EHV: Small Non Domestic Unrestricted		3	0.490			0.77			
LDNO 132kV/EHV: Small Non Domestic Two Rate		4	0.509	0.179		0.77			
LDNO 132kV/EHV: Small Non Domestic Off Peak (related MPAN)		4	0.182						
LDNO 132kV/EHV: LV Medium Non-Domestic		5-8	0.493	0.174		3.29			
LDNO 132kV/EHV: LV Sub Medium Non-Domestic		5-8	0.772	0.272		6.28			

LDNO 132kV/EHV: HV Medium Non-Domestic		5-8	0.607	0.288		54.38			
LDNO 132kV/EHV: LV Network Domestic		-	1.957	0.330	0.176	0.60			
LDNO 132kV/EHV: LV Network Non-Domestic Non-CT		-	2.116	0.346	0.179	0.77			
LDNO 132kV/EHV: LV HH Metered		0	1.632	0.276	0.170	3.10	0.40	0.71	0.061
LDNO 132kV/EHV: LV Sub HH Metered		0	2.181	0.340	0.260	1.71	1.30	1.80	0.068
LDNO 132kV/EHV: HV HH Metered		0	1.919	0.316	0.279	28.93	1.14	1.87	0.050
LDNO 132kV/EHV: NHH UMS category A		8	0.387						
LDNO 132kV/EHV: NHH UMS category B		1	0.441						
LDNO 132kV/EHV: NHH UMS category C		1	0.639						
LDNO 132kV/EHV: NHH UMS category D		1	0.349						
LDNO 132kV/EHV: LV UMS (Pseudo HH Metered)		0	3.645	0.363	0.224				
LDNO 132kV/EHV: LV Generation NHH or Aggregate HH		8	-0.308			0.00			
LDNO 132kV/EHV: LV Sub Generation NHH		8	-0.311			0.00			
LDNO 132kV/EHV: LV Generation Intermittent		0	-0.308			0.00			0.081
LDNO 132kV/EHV: LV Generation Non-Intermittent		0	-2.196	-0.229	-0.044	0.00			0.081
LDNO 132kV/EHV: LV Sub Generation Intermittent		0	-0.311			0.00			0.085
LDNO 132kV/EHV: LV Sub Generation Non-Intermittent		0	-2.260	-0.220	-0.040	0.00			0.085
LDNO 132kV/EHV: HV Generation Intermittent		0	-0.377			38.90			0.120
LDNO 132kV/EHV: HV Generation Non-Intermittent		0	-3.090	-0.173	-0.098	38.90			0.120
LDNO 132kV: Domestic Unrestricted		1	0.205			0.26			
LDNO 132kV: Domestic Two Rate		2	0.238	0.083		0.26			
LDNO 132kV: Domestic Off Peak (related MPAN)		2	0.083						
LDNO 132kV: Small Non Domestic Unrestricted		3	0.213			0.33			
LDNO 132kV: Small Non Domestic Two Rate		4	0.222	0.078		0.33			
LDNO 132kV: Small Non Domestic Off Peak (related MPAN)		4	0.079						
LDNO 132kV: LV Medium Non-Domestic		5-8	0.215	0.076		1.43			
LDNO 132kV: LV Sub Medium Non-Domestic		5-8	0.336	0.118		2.73			
LDNO 132kV: HV Medium Non-Domestic		5-8	0.264	0.125		23.67			
LDNO 132kV: LV Network Domestic		-	0.852	0.143	0.077	0.26			
LDNO 132kV: LV Network Non-Domestic Non-CT		-	0.921	0.151	0.078	0.33			
LDNO 132kV: LV HH Metered		0	0.710	0.120	0.074	1.35	0.17	0.31	0.027
LDNO 132kV: LV Sub HH Metered		0	0.949	0.148	0.113	0.74	0.57	0.78	0.030
LDNO 132kV: HV HH Metered		0	0.835	0.138	0.122	12.59	0.50	0.81	0.022
LDNO 132kV: NHH UMS category A		8	0.169						
LDNO 132kV: NHH UMS category B		1	0.192						
LDNO 132kV: NHH UMS category C		1	0.278						
LDNO 132kV: NHH UMS category D		1	0.152						
LDNO 132kV: LV UMS (Pseudo HH Metered)		0	1.586	0.158	0.097				
LDNO 132kV: LV Generation NHH or Aggregate HH		8	-0.134			0.00			
LDNO 132kV: LV Sub Generation NHH		8	-0.135			0.00			
LDNO 132kV: LV Generation Intermittent		0	-0.134			0.00			0.035
LDNO 132kV: LV Generation Non-Intermittent		0	-0.956	-0.100	-0.019	0.00			0.035
LDNO 132kV: LV Sub Generation Intermittent		0	-0.135			0.00			0.037
LDNO 132kV: LV Sub Generation Non-Intermittent		0	-0.984	-0.095	-0.020	0.00			0.037
LDNO 132kV: HV Generation Intermittent		0	-0.164			16.93			0.052
LDNO 132kV: HV Generation Non-Intermittent		0	-1.345	-0.075	-0.028	16.93			0.052
LDNO 0000: Domestic Unrestricted		1	0.000			0.00			
LDNO 0000: Domestic Two Rate		2	0.000	0.000		0.00			
LDNO 0000: Domestic Off Peak (related MPAN)		2	0.000						
LDNO 0000: Small Non Domestic Unrestricted		3	0.000			0.00			
LDNO 0000: Small Non Domestic Two Rate		4	0.000	0.000		0.00			
LDNO 0000: Small Non Domestic Off Peak (related MPAN)		4	0.000						
LDNO 0000: LV Medium Non-Domestic		5-8	0.000	0.000		0.00			
LDNO 0000: LV Sub Medium Non-Domestic		5-8	0.000	0.000		0.00			
LDNO 0000: HV Medium Non-Domestic		5-8	0.000	0.000		0.00			
LDNO 0000: LV Network Domestic		-	0.000	0.000	0.000	0.00			
LDNO 0000: LV Network Non-Domestic Non-CT		-	0.000	0.000	0.000	0.00			
LDNO 0000: LV HH Metered		0	0.000	0.000	0.000	0.00	0.00	0.00	0.000
LDNO 0000: LV Sub HH Metered		0	0.000	0.000	0.000	0.00	0.00	0.00	0.000
LDNO 0000: HV HH Metered		0	0.000	0.000	0.000	0.00	0.00	0.00	0.000
LDNO 0000: NHH UMS category A		8	0.000						
LDNO 0000: NHH UMS category B		1	0.000						
LDNO 0000: NHH UMS category C		1	0.000						
LDNO 0000: NHH UMS category D		1	0.000						

LDNO 0000: LV UMS (Pseudo HH Metered)		0	0.000	0.000	0.000				
LDNO 0000: LV Generation NHH or Aggregate HH		8	0.000			0.00			
LDNO 0000: LV Sub Generation NHH		8	0.000			0.00			
LDNO 0000: LV Generation Intermittent		0	0.000			0.00			0.000
LDNO 0000: LV Generation Non-Intermittent		0	0.000	0.000	0.000	0.00			0.000
LDNO 0000: LV Sub Generation Intermittent		0	0.000			0.00			0.000
LDNO 0000: LV Sub Generation Non-Intermittent		0	0.000	0.000	0.000	0.00			0.000
LDNO 0000: HV Generation Intermittent		0	0.000			0.00			0.000
LDNO 0000: HV Generation Non-Intermittent		0	0.000	0.000	0.000	0.00			0.000

Annex 5 - Schedule of line loss factors

SP Manweb - Illustrative LLFs for year beginning 1 April 2018					
Time periods	Period 1	Period 2	Period 3	Period 4	
Monday to Friday March to October	23:30 – 07:30	07:30 – 23:30			
Monday to Friday November to February	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				
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	1.086	1.103	1.115	1.134	101,102,103,104,105,106,111,112,113,114,115,116,117,118,119,120,130,131,132,133,134,135,136,137,138,140,141,142,143,145,146,147,148,149,150,153,155,180,201,202,203,205,211,212,231,232,233,234,235,236,237,280,401,402,501,511,591,781,782,783,784,785,786,787,791,795,900,901,902,903,910
Low-voltage substation	1.057	1.060	1.064	1.069	207,208,209,210,403,404,503,513,592,780,788,789,792,796
High-voltage network	1.032	1.038	1.043	1.047	405,505,515,593,770,771,774,775,776,777,778,779,793,797
High-voltage substation	1.024	1.027	1.029	1.031	300 to 399 Inclusive 445 to 499 Inclusive 700 to 725 Inclusive
33kV generic (demand)	1.016	1.018	1.020	1.021	
33kV generic (generation)	1.012	1.012	1.013	1.014	
132kV generic (demand)	1.003	1.005	1.006	1.006	
132kV generic (generation)	1.000	1.000	1.000	1.000	

EHV site specific LLFs					
Demand					
Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC
Shell Stanlow	1.043	1.047	1.044	1.048	803
Jaguar & Land Rover	1.073	1.080	1.078	1.087	804
Innospec	1.035	1.046	1.043	1.052	805
Bridgewater Paper	1.030	1.034	1.034	1.038	806
General Motors	1.028	1.032	1.031	1.034	807
TATA Steel	1.019	1.022	1.020	1.026	808
Urenco	1.029	1.030	1.030	1.032	809
Ineos Chlor Ltd (Lostock)	1.040	1.058	1.046	1.066	810
SafeGuard Bradwell	1.016	1.018	1.020	1.021	811
Knauf Insulation	1.078	1.088	1.084	1.096	812
Air Products	1.052	1.057	1.055	1.060	813
Shell Chemicals	1.043	1.047	1.045	1.050	814
Growhow	1.044	1.047	1.046	1.049	815
Castle Cement	1.022	1.029	1.024	1.033	816
Kronospan	1.038	1.052	1.043	1.062	817
Albion Inorganic	1.027	1.038	1.032	1.045	819
Tyn dryfol PV	1.019	1.045	1.023	1.066	820
BHP Petroleum	1.037	1.061	1.051	1.074	821
Hole House Farm	1.031	1.042	1.038	1.051	822
Williams Farm Solar Park	1.016	1.018	1.021	1.022	823
Port of Liverpool	1.010	1.016	1.014	1.021	824
Moss Farm Warmingham	1.016	1.018	1.020	1.021	825
Combermere Abbey PV	1.016	1.018	1.021	1.022	826
Kimberly Clark	1.045	1.069	1.052	1.079	827
Amegni	1.012	1.028	1.022	1.039	828
Salt Union	1.059	1.069	1.065	1.068	829
Parciau Solar Park	1.000	1.023	1.009	1.038	830
ICI Percival Lane	1.067	1.075	1.071	1.080	831
Toyota	1.022	1.028	1.023	1.031	833
Warmingham Gas Storage	1.068	1.084	1.075	1.098	834
Arpley Landfill	1.017	1.034	1.031	1.000	835
Amcor	1.026	1.032	1.027	1.037	836
Cemmaes Windfarm C	1.036	1.046	1.069	1.096	838
PG Strand Gate	1.036	1.045	1.042	1.052	839
Moel Maelogan A	1.007	1.023	1.016	1.029	840
Moel Maelogan B	1.007	1.023	1.016	1.029	841
North Hoyle	1.020	1.038	1.029	1.046	842
Cefn Croyes (3)	1.054	1.068	1.064	1.076	843
Cefn Croyes (4)	1.054	1.068	1.064	1.076	844
Tir Mostyn	1.026	1.055	1.042	1.072	845
Myndd Clogau	1.008	1.034	1.031	1.045	846
Granox	1.013	1.021	1.018	1.027	847
Tai Maelion	1.011	1.021	1.014	1.028	848
Braich Ddu	1.016	1.012	1.019	1.023	849
Widnes Biomass	1.016	1.018	1.020	1.021	850
Moel Maelogan 2	1.007	1.023	1.016	1.029	851
Trafalgar Dock	1.068	1.076	1.073	1.080	852

CEW	1.016	1.018	1.020	1.021	853
Wern Ddu	1.029	1.055	1.040	1.073	854
Rhyl Flats	1.017	1.033	1.027	1.042	856
Seaforth Liverpool Dock 2	1.003	1.008	1.004	1.013	857
Cemmaes B	1.036	1.046	1.069	1.096	865
Penrhyddlan	1.026	1.059	1.047	1.083	866
Llidiartywaun	1.008	1.041	1.041	1.065	867
Rhyd-y-Groes	0.996	0.993	0.994	0.995	868
Llangwryfon	1.023	1.043	1.038	1.057	869
Storenergy (Lostock)	1.019	1.025	1.022	1.030	870
Rheidol	1.005	1.017	1.014	1.024	871
Carno B	1.012	1.028	1.022	1.039	872
Carno A	1.012	1.028	1.022	1.039	873
Trysglwyn	1.008	1.008	1.008	1.010	874
Llanabo	1.009	1.008	1.008	1.010	875
Ebnal Lodge PV	1.016	1.018	1.020	1.021	876
Quinn Glass	1.043	1.047	1.046	1.050	877
Liverpool Int Bus Park	1.063	1.071	1.068	1.078	878
Twemelows Hall PV	1.016	1.018	1.020	1.021	880
Teyrdan	1.016	1.018	1.021	1.022	881
Parc Adfer	1.016	1.018	1.020	1.021	882
Hadley Solar Park, Import	1.016	1.018	1.021	1.022	883
Charity Farm Solar Park	1.016	1.018	1.020	1.021	886
Mynydd Gorddu	1.022	1.049	1.041	1.065	887
Winsford Salt	1.016	1.018	1.020	1.021	888
Nefyn	1.016	1.018	1.020	1.021	889
Frodsham WF Cluster 1, Import	1.016	1.018	1.020	1.021	890
Frodsham WF Cluster 2, Import	1.016	1.018	1.020	1.021	891
Ince Biomass	1.016	1.018	1.020	1.021	892
Kinmel Estate Solar Park	1.016	1.018	1.020	1.021	893
Tirgwynt Solar Park	1.016	1.018	1.020	1.021	894
Kingsmoor Park	1.016	1.018	1.020	1.021	895
Percival Lane STOR	1.016	1.018	1.020	1.021	896
Stanlow STOR	1.016	1.018	1.020	1.021	897
PG Warrington	1.038	1.047	1.043	1.052	898
Airbus UK Ltd (33kV)	1.014	1.017	1.017	1.021	899
Network Rail (Crewe)	1.045	1.053	1.050	1.060	921
Network Rail (Speke)	1.073	1.079	1.077	1.086	922
Network Rail (Bank Hall)	1.074	1.085	1.080	1.092	923
Network Rail (Bromborough)	1.045	1.055	1.051	1.063	924
Network Rail (Shore Road)	1.041	1.046	1.044	1.050	925
Shotton Combined Heat and Power Station	1.000	1.000	1.000	1.000	MSID 7120
Burbo Bank Windfarm	0.997	0.999	0.997	0.999	MSID 7203
Risley DSCP	1.019	1.023	1.023	1.027	MSID 0030
Bold DSCP	1.039	1.050	1.060	1.069	MSID 0031/32
Dolgarrog PS	0.986	0.991	0.985	0.991	MSID 4532/33
Queensferry Diesel	1.016	1.018	1.020	1.021	837
Cefn Mawr	1.016	1.018	1.020	1.021	TBC
Four Crosses Diesel	1.016	1.018	1.020	1.021	TBC
Rhosgyll Fawr Chwilog	1.016	1.018	1.020	1.021	TBC

EHV site specific LLFs					
Generation					
Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC
Shell Stanlow	1.031	1.031	1.033	1.033	603
Port of Liverpool Windfarm	1.008	1.014	1.012	1.018	604
Bridgewater Paper Export	1.001	1.003	1.002	1.003	606
Moel Maelogan 2 Export	0.972	0.984	0.977	0.986	611
Percival Lane STOR Export	1.012	1.012	1.013	1.014	616
Stanlow STOR Export	1.012	1.012	1.013	1.014	617
Ineos Chlor Ltd (Lostock) Export	1.012	1.012	1.013	1.014	618
Albion Inorganic	1.024	1.029	1.023	1.025	619
BHP	1.023	1.044	1.039	1.058	621
Amegni Export	0.987	0.999	1.000	1.010	628
Salt Union Export	1.032	1.032	1.033	1.033	629
Arpley Landfill Export	1.003	1.012	1.010	1.019	635
Cemmaes C Export	0.960	0.993	0.962	0.983	638
PG Strand Gate Export	0.990	0.996	0.994	0.999	639
Moel Maelogan A Export	0.972	0.984	0.977	0.986	640
Moel Maelogan B Export	0.972	0.984	0.977	0.986	641
North Hoyle Windfarm Export	0.987	0.997	0.991	1.001	642
Cefn Croyes 3 Export	1.044	1.059	1.051	1.066	643
Cefn Croyes 4 Export	1.037	1.050	1.042	1.055	644
Tir Mostyn Export	0.981	1.000	0.985	1.005	645
Mynydd Clogau - Export	1.001	1.020	1.015	1.030	646
Granox Export	1.011	1.017	1.016	1.023	647
Kronospan Export	1.009	1.016	1.012	1.029	648
Braich Ddu Windfarm Export	0.979	1.000	0.982	0.921	649
Tai Maelion Export	1.003	1.004	1.003	1.017	651
Widnes Biomass Export	1.012	1.012	1.013	1.014	652
CEW Export	1.012	1.012	1.013	1.014	653
Wern Ddu Export	0.995	1.012	0.998	1.022	654
SafeGuard Bradwell (Export)	1.012	1.012	1.013	1.014	655
Rhyl Flats Windfarm Export	1.000	1.015	1.008	1.022	656
Tyn dryfol PV	1.011	1.014	1.012	1.030	658
Williams Farm Solar Park Export	1.012	1.012	1.013	1.014	659
Moss Farm Warmingham	1.012	1.012	1.013	1.014	660
Combermere Abbey PV	1.021	1.031	1.026	1.050	661
Beaufort Road Export	1.012	1.012	1.013	1.014	664
Cemmaes B Windfarm Export	0.960	0.993	0.962	0.983	665
Penthyddlan Windfarm Export	0.985	0.979	0.934	0.956	666
Llidiartywaun Export	0.956	0.986	0.968	0.993	667
Rhyd y Groes Export	0.967	0.966	0.963	0.968	668
Llangwryfon Export	0.996	1.011	1.002	1.018	669
Twemelows Hall PV	1.012	1.012	1.013	1.014	670
Rheidol Windfarm Export	1.012	1.028	1.023	1.037	671
Carno B Export	0.987	0.999	1.000	1.010	672
Carno A Export	0.987	0.999	1.000	1.010	673
Tysglwyn Export	0.985	0.985	0.983	0.986	674
Llanabo Export	0.973	0.972	0.968	0.972	675
Ebnal Lodge PV	1.012	1.012	1.013	1.014	676

Nefyn Export	1.012	1.012	1.013	1.014	678
Teyrdan Export	1.012	1.017	1.014	1.014	679
Parciau Solar Park Export	1.003	1.014	1.007	1.022	681
Network Rail Speke Export	1.006	1.008	1.008	1.011	682
Hadley Solar Park, Export	1.012	1.021	1.019	1.014	683
Parc Adfer Energy Export	1.012	1.012	1.013	1.014	684
Charity Farm Solar Park	1.012	1.012	1.013	1.014	686
Mynydd Gorddu Export	1.013	1.040	1.028	1.052	687
Network Rail Crewe Export	1.020	1.026	1.024	1.031	691
Ince Biomass Export	1.012	1.012	1.013	1.014	692
Kinmel Estate Solar Park Export	1.012	1.012	1.013	1.014	693
Tirgwynt Solar Park	1.012	1.012	1.013	1.014	694
Kingsmoor Park Export	1.012	1.012	1.013	1.014	696
Frodsham WF Cluster 1, Export	1.012	1.012	1.013	1.014	697
PG Winnington Export	1.015	1.021	1.017	1.022	698
Frodsham WF Cluster 2, Export	1.012	1.012	1.013	1.014	699
Shotton Combined Heat and Power Station	1.000	1.000	1.000	1.000	MSID 7120
Burbo Bank Windfarm	0.997	0.999	0.997	0.999	MSID 7203
Dolgarrog PS	0.986	0.991	0.985	0.991	MSID 4532/33
Maentwrog PS	0.921	0.938	0.978	0.947	MSID 6015
Cwm Dylli PS	0.965	0.993	0.982	0.972	MSID 4054
Queensferry Diesel	1.012	1.012	1.013	1.014	662
Cefn Mawr	1.012	1.012	1.013	1.014	TBC
Four Crosses Diesel	1.012	1.012	1.013	1.014	TBC
Rhosgyl Fawr Chwilog	1.012	1.012	1.013	1.014	TBC

Annex 6 - Addendum to charging statement detailing charges for new Designated EHV Properties

Annex 6 - Addendum to Annex 2 EHV charges

SP Manweb - Effective from 1 April 2018 - Final new designated EHV charges														
Import Unique Identifier	LLFC	Import MPANs/MSIDs	Export Unique Identifier	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)
EDOM import 1			EDOM export 1											
EDOM import 2			EDOM export 2											
EDOM import 3			EDOM export 3											
EDOM import 4			EDOM export 4											
EDOM import 5			EDOM export 5											
EDOM import 6			EDOM export 6											
EDOM import 7			EDOM export 7											
EDOM import 8			EDOM export 8											
EDOM import 9			EDOM export 9											
EDOM import 10			EDOM export 10											

SP Manweb - Effective from 1 April 2018 - Final new designated EHV line loss factors																
Import Unique Identifier	LLFC	Import MPANs/MSIDs	Export Unique Identifier	LLFC	Export MPANs/MSIDs	Name	Import LLF period 1	Import LLF period 2	Import LLF period 3	Import LLF period 4	Import LLF period 5	Export LLF period 1	Export LLF period 2	Export LLF period 3	Export LLF period 4	Export LLF period 5
EDOM Import 1			EDOM Export 1													
EDOM Import 2			EDOM Export 2													
EDOM Import 3			EDOM Export 3													
EDOM Import 4			EDOM Export 4													
EDOM Import 5			EDOM Export 5													
EDOM Import 6			EDOM Export 6													
EDOM Import 7			EDOM Export 7													
EDOM Import 8			EDOM Export 8													
EDOM Import 9			EDOM Export 9													