

# Northern Powergrid (Northeast) Plc

# Use of System Charging Statement

Notice of Charges

Effective from

1 April 2020

Version 0.4

# **Version Control**

Version	Date	Description of version and any changes made
0.1	19 Dec 2018	This statement is based on version 0.1 of the common template developed during 2018.
0.1	29 Mar 2019	The form of this statement was approved by Ofgem on 28 March 2019. No changes to previous version.
0.2	19 Nov 2019	This statement has been revised to update Annex 5 based on the 2019 losses submission.
0.3	14 Feb 2020	This statement has been revised to update the LDNO HV demand tariffs in Annex 4 to comply with the Ofgem direction issued for tariffs that take effect from 1 April 2020. Details of the Ofgem direction can be found <u>https://www.ofgem.gov.uk/publications-and-</u> <u>updates/decision-grant-derogations-all-distribution-network-</u> <u>operators-distribution-use-system-charges-202021</u>
0.4	12 Jun 2020	This statement has been revised to update the registration details of Northern Powergrid (Northeast) Plc, and to include Supplier Liquidity guidance in section 7. The Ofgem open letter can be found <a href="https://www.ofgem.gov.uk/publications-and-updates/managing-impact-covid-19-energy-market-relaxing-network-charge-payment-terms">https://www.ofgem.gov.uk/publications-and-updates/managing-impact-covid-19-energy-market-relaxing-network-charge-payment-terms</a>

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

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# 1. Introduction

- 1.1. This statement tells you about our charges and the reasons behind them. It has been prepared consistent with Standard Licence Condition 14 of our Electricity Distribution Licence. The main purpose of this statement is to provide our schedule of charges<sup>1</sup> for the use of our Distribution System and to provide the schedule of Line Loss Factors<sup>2</sup> 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 following methodologies as per the Distribution Connection and Use of System Agreement (DCUSA)<sup>3</sup>:
  - (a) Common Distribution Charging Methodology (CDCM); for Low Voltage and High Voltage (LV and HV) Designated Properties as per DCUSA Schedule 16; and
  - (b) Extra-High Voltage Distribution Charging Methodology (EDCM); for Designated Extra-High Voltage (EHV) Properties as per DCUSA Schedule 18.
- Separate charges are calculated depending on the characteristics of the connection 1.4. 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 a premise 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

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

<sup>&</sup>lt;sup>2</sup> Known as adjustment factors in the Distribution Licence and commonly referred to as Loss Adjustment Factors. The schedule of Line Loss Factors will be provided in a revised statement shortly after the Line Loss Factors for the relevant year have been successfully audited by Elexon. <sup>3</sup> The Distribution and Connection Use of System Agreement (DCUSA) available from

http://www.dcusa.co.uk/SitePages/Documents/DCUSA-Document.aspx

a simple model to assist you to calculate charges. This spreadsheet can be downloaded from:

http://www.northernpowergrid.com/document-library/charges

## Validity period

- 1.8. This charging statement is valid for services provided from the effective from date stated on the front of this 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 relevant 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.northernpowergrid.com/document-library/charges

#### Contact details

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

Charges Policy Manager Northern Powergrid Manor House Station Road New Penshaw Houghton-le-Spring DH4 7LA e-mail:- <u>UoS.Charges@northernpowergrid.com</u>

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

Connection Record Maintenance Northern Powergrid Manor House Station Road New Penshaw Houghton-le-Spring DH4 7LA e-mail:- connection.records@northernpowergrid.com

# 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.

# The supercustomer and site-specific billing approaches

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

# Supercustomer billing and payment

- 2.5. The Supercustomer approach makes use of aggregated data obtained from Suppliers using the 'Aggregated DUoS Report' data flow.
- 2.6. Invoices are calculated on a periodic basis and sent to each User, for whom we transport electricity through our Distribution System. Invoices are reconciled, over a

period of approximately 14 months to reflect later and more accurate consumption figures.

2.7. The charges are applied on the basis of the LLFC assigned to the MPAN, and the units consumed within the time periods specified in this statement. 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' if you believe the allocated LLFC or tariff is incorrect.

## Supercustomer charges

- 2.8. Supercustomer charges include the following components:
  - (a) a fixed charge pence/MPAN/day, there will only be one fixed charge applied to each MPAN; and
  - (b) unit charges pence/kilowatt-hour (kWh); more than one kWh charge may apply depending on the type of tariff for which the MPAN is registered.
- 2.9. Users who wish to supply electricity to Customers for whom we receive aggregated data through Settlement (see paragraph 2.3) will be allocated the relevant charge structure set out in Annex 1.
- 2.10. Identification of the appropriate charge can be made by cross reference to the LLFC.
- 2.11. Valid settlement Profile Class (PC)/Standard Settlement Configuration (SSC)/Meter Timeswitch Code (MTC) combinations for these LLFCs where the Metering System is Measurement Class A or B are detailed in Market Domain Data (MDD).
- 2.12. Where an MPAN has an invalid Settlement combination, the 'Domestic Unrestricted' fixed and unit charge will be applied as default until the invalid combination is corrected. Where there are multiple SSC/Time Pattern Regime (TPR) combinations, the default 'Domestic Unrestricted' fixed and unit charge will be applied for each invalid SSC/TPR combination.
- 2.13. The time periods for unit charges where the Metering System is Measurement Class A or B are as specified by the SSC. To determine the appropriate charge rate for each SSC/TPR a look-up table is provided in the spreadsheet that accompanies this statement<sup>4</sup>.
- 2.14. The time periods for unit charges where the Metering System is Measurement Class F or G are set out in the table 'Time Bands for Half Hourly Metered Properties' in Annex 1.

<sup>&</sup>lt;sup>4</sup> Northern Powergrid (Northeast) - 2020-21 Schedule of Charges and other tables

2.15. The 'Domestic Off-Peak' and 'Small Non-Domestic Off-Peak' charges are supplementary to either an unrestricted or a two-rate charge.

## Site-specific billing and payment

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

## Site-specific billed charges

- 2.20. Site-specific billed charges may include the following components:
  - (a) a fixed charge, pence/MPAN/day or pence/MSID/day;
  - (b) a capacity charge, pence/kilovolt-ampere(kVA)/day, for Maximum Import Capacity (MIC) and/or Maximum Export Capacity (MEC);
  - (c) an excess capacity charge, pence/kVA/day, if a site exceeds its MIC/MEC;
  - (d) unit charges, pence/kWh, more than one unit charge may be applied; and
  - (e) an excess reactive power charge, pence/kilovolt-ampere reactive hour(kVArh), for each unit in excess of the reactive charge threshold.
- 2.21. Users who wish to supply electricity to Customers for whom we receive site-specific data through Settlement (see paragraph 2.4) will be allocated the relevant charge structure dependent upon the voltage and location of the Metering Point.
- 2.22. Fixed charges are generally levied on a pence per MPAN/MSID per day basis. Where two or more HH MPANs/MSIDs are located at the same point of connection (as identified in the Connection Agreement), with the same LLFC, and registered to the same Supplier, only one daily fixed charge will be applied.
- 2.23. LV and HV Designated Properties will be charged in accordance with the CDCM and allocated the relevant charge structure set out in Annex 1.

- 2.24. For LV and HV Designated Properties that utilise a combination of Intermittent and Non-Intermittent generation technologies metered through a single MPAN/MSID, we will allocate the tariff based on the dominant technology. The dominant technology will have a higher combined installed capacity as evidenced in ratings contained in the Connection Agreement.
- 2.25. Designated EHV Properties will be charged in accordance with the EDCM and allocated the relevant charge structure set out in Annex 2.
- 2.26. 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.
- 2.27. Due to the seasonal nature of charges for Unmetered Supplies, changes between Measurement Classes B and D (or vice versa) shall not be agreed except with effect from 1 April in any charging year.

Time periods

- 2.28. 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.
- 2.29. 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.
- 2.30. The time periods for the application of unit charges to Unmetered Supply Exit Points that are pseudo HH metered are detailed in Annex 1. We have not issued a notice to change the time bands.

## Application of capacity charges

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

## Chargeable capacity

- 2.32. The chargeable capacity is, for each billing period, the MIC/MEC, as detailed below.
- 2.33. 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.
- 2.34. Reductions to the MIC/MEC may only be permitted once in a 12 month period. Where the MIC/MEC is reduced, the new lower level will be agreed with reference to the level of the Customer's maximum import and/or export demand respectively. The new MIC/MEC will be applied from the start of the next billing period after the date that the request was received. It should be noted that, where a new lower level is

agreed, the original capacity may not be available in the future without the need for network reinforcement and associated charges.

2.35. In the absence of an agreement, the chargeable capacity, save for error or omission, will be based on the last MIC/MEC that we have previously agreed for the relevant premise's connection. A Customer can seek to agree or vary the MIC/MEC by contacting us using the contact details in section 1.

#### Exceeded capacity

2.36. Where a Customer takes additional, unauthorised capacity over and above the MIC/MEC, the excess will be classed as exceeded capacity. The exceeded portion of the capacity will be charged at the 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

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

Where:

AI = Active import (kWh)

RI = Reactive import (kVArh)

RE = Reactive export (kVArh)

MIC = Maximum import capacity (kVA)

- 2.37. Only reactive import and reactive export values occurring at times of active import are used in the calculation. Where data for two or more MPANs is aggregated for billing purposes the HH consumption values are summated prior to the calculation above.
- 2.38. This calculation is completed for every half hour and the maximum value from the billing period is applied.

## Generation exceeded capacity

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

Where:

- AE = Active export (kWh)
- RI = Reactive import (kVArh)
- RE = Reactive export (kVArh)

MEC = Maximum export capacity (kVA)

- 2.39. Only reactive import and reactive export values occurring at times of active export are used in the calculation. Where data for two or more MPANs is aggregated for billing purposes the HH consumption values occurring at times of kWh export are summated prior to the calculation above.
- 2.40. This calculation is completed for every half hour and the maximum value from the billing period is applied.

## Standby capacity for additional security on site

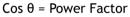
2.41. Where standby capacity charges are applied, the charge will be set at the same rate as that applied to normal MIC. Should a Customer's request for additional security of supply require the provision of capacity from two different sources, we reserve the right to charge for the capacity held at each source.

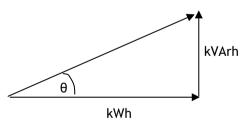
#### Minimum capacity levels

2.42. There is no minimum capacity threshold.

Application of charges for excess reactive power

- 2.43. When an individual HH metered MPAN's reactive power (measured in kVArh) at LV and HV Designated Properties exceeds 33% of its total active power (measured in kWh) in any given half hour, excess reactive power charges will apply. This threshold is equivalent to an average power factor of 0.95 during that half hour. Any reactive units in excess of the 33% threshold are charged at the rate appropriate to the particular charge.
- 2.44. Power Factor is calculated as follows:





2.45. The chargeable reactive power is calculated as follows:

Demand chargeable reactive power

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

Where:

AI = Active import (kWh)

RI = Reactive import (kVArh)

RE = Reactive export (kVArh)

- 2.46. Only reactive import and reactive export values occurring at times of active import are used in the calculation. Where data for two or more MPANs is aggregated for billing purposes the HH consumption values are summated prior to the calculation above.
- 2.47. The square root calculation will be to two decimal places.
- 2.48. This calculation is completed for every half hour and the values summated over the billing period.
  - Generation chargeable reactive power

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

Where:

AE = Active export (kWh)

RI = Reactive import (kVArh)

RE = Reactive export (kVArh)

- 2.49. Only reactive import and reactive export values occurring at times of active export are used in the calculation. Where data for two or more MPANs is aggregated for billing purposes the HH consumption values are summated prior to the calculation above.
- 2.50. The square root calculation will be to two decimal places.
- 2.51. This calculation is completed for every half hour and the values summated over the billing period.

## Incorrectly allocated charges

2.52. It is our responsibility to apply the correct charges to each MPAN/MSID. The allocation of charges is based on the voltage of connection, import/export details including multiple MPANs, metering information, and, for some tariffs, the metering location. Where an MPAN/MSID is used for export purposes in relation to an LV or HV Designated Property, the type of generation (Intermittent or Non-intermittent) also determines the allocation of charges.

- 2.53. We are responsible for deciding the voltage of connection. Generally, this is determined by where the metering is located and where responsibility for the electrical equipment transfers from us to the connected Customer.
- 2.54. The Supplier determines and provides us with the metering information and data. This enables us to allocate charges where there is more than one charge per voltage level. The metering information and data is likely to change over time if, for example, a Supplier changes from a two rate meter to a single rate meter. When we are notified this has happened, we will change the allocation of charges accordingly.
- 2.55. If it has been identified that a charge may have been incorrectly allocated due to the metering information and/or data then a request for investigation should be made to the Supplier.
- 2.56. Where it has been identified that a charge may have been incorrectly allocated due to the wrong 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.
- 2.57. An administration charge (covering our reasonable costs) may be made if a technical assessment or site visit is required, but we will not apply any charge where we agree to the change request.
- 2.58. Where we agree that the current charge should be changed, we will then allocate the appropriate set of charges for the connection. Any adjustment will be applied from the date of the request, back to either 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; whichever is the shorter.
- 2.59. Any credit or additional charge will be issued to the relevant Supplier(s) effective during the period of the change.
- 2.60. Should we reject the request (as per paragraph 2.55) a justification will be provided to the requesting party. We shall not unreasonably withhold or delay any decision on a request to change the charges applied and would expect to confirm our position on the request within three months of the date of request.

# Generation charges for pre-2005 Designated EHV Properties

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

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

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

## Provision of billing data

- 2.63. Where HH metering data is required for UoS charging and this is not provided in accordance with the BSC or the DCUSA through settlement processes, such metering data shall be provided by the User of the system in respect of each calendar month within five working days of the end of that calendar month.
- 2.64. The metering data shall identify the amount of energy conveyed across the Metering System in each half hour of each day and shall separately identify active and reactive import and export. Metering data provided to us shall be consistent with that received through the metering equipment installed.
- 2.65. Metering data shall be provided in an electronic format specified by us from time to time, and in the absence of such specification, metering data shall be provided in a comma-separated text file in the format of Master Registration Agreement (MRA) data flow D0036<sup>5</sup> (as agreed with us). The data shall be e-mailed to:

Duos.billing@northernpowergrid.com

<sup>&</sup>lt;sup>5</sup> MRA Data Transfer Catalogue available from <u>https://dtc.mrasco.com/</u>

2.66. We require details of reactive power imported or exported to be provided for all Measurement Class C and E sites. It is also required for CVA sites and 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

2.67. We do not operate networks outside our Distribution Services Area.

#### Licensed distribution network operator charges

- 2.68. Licenced Distribution Network Operator (LDNO) charges are applied to LDNOs who operate Embedded Networks within our Distribution Services Area.
- 2.69. 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 our Distribution System. The relevant charge structures are set out in Annex 4.
- 2.70. Where a NHH metered MPAN has an invalid settlement combination, the 'LDNO HV: Domestic Unrestricted' fixed and unit charge will be applied as default until the invalid combination is corrected. Where there are multiple SSC/TPR combinations, the default 'LDNO HV: Domestic Unrestricted' fixed and unit charge will be applied for each invalid SSC/TPR combination.
- 2.71. 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.
- 2.72. For Nested Networks the relevant charging principles set out in DCUSA Schedule 21 will apply.

## Licence exempt distribution networks

- 2.73. The Electricity and Gas (Internal Market) Regulations 2011<sup>6</sup> introduced new obligations on owners of licence exempt distribution networks (sometimes called private networks) including a duty to facilitate access to electricity and gas suppliers for Customers within those networks.
- 2.74. 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

<sup>&</sup>lt;sup>6</sup> The Electricity and Gas (Internal Market) Regulations 2011 available from <u>http://www.legislation.gov.uk/uksi/2011/2704/contents/made</u>

'third party access'. These embedded Customers will require an MPAN so that they can have their electricity supplied by a Supplier of their choice.

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

#### Full settlement metering

- 2.76. 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 licence exempt distribution network.
- 2.77. In this approach our UoS charges will be applied to each MPAN.

#### Difference metering

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

#### Gross settlement

- 2.79. Where one of our MPANs (prefix 15) is embedded within a licence exempt distribution network connected to our Distribution System, and a dispensation for 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.
- 2.80. 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:
  - (h) be provided in a text file in the format of the D0036 MRA data flow;
  - (i) the text file shall be emailed to <a href="mailto:Duos.billing@northernpowergrid.com">Duos.billing@northernpowergrid.com</a>;
  - (j) 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;
  - (k) 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".

2.81. 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 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.northernpowergrid.com/document-library/charges

- 3.3. Annex 1 contains the charges applied to LV and HV Designated Properties.
- 3.4. Annex 2 contains the charges applied to Designated EHV Properties and charges applied to LDNOs with Designated EHV Properties connected to their Distribution Systems.
- 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 to their Distribution Systems.

# 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 lost<sup>7</sup> as it is distributed through the network. This adjustment does not affect distribution charges but is used in energy Settlement to take metered consumption to a notional Grid Supply Point so that Suppliers' purchases take account of the energy lost on the Distribution System.
- 4.2. We are responsible for calculating the Line Loss Factors (LLFs) and providing these to Elexon. Elexon is the company that manages the BSC.
- 4.3. LLFs are used to adjust the Metering System volumes to take account of losses on the Distribution System.

# Calculation of line loss factors

- 4.4. LLFs are calculated in accordance with BSCP128 which sets out the procedures and principles with which our LLF methodology must comply. It also defines the procedure and timetable by which LLFs are reviewed and submitted.
- 4.5. LLFs are calculated for a set number of time periods during the year, using either a generic method or a site-specific method. The generic method is used for sites connected at LV or HV and the site-specific method is used for sites connected at EHV or where a request for site-specific LLFs has been agreed. Generic LLFs will be applied 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.
- 4.7. The Elexon website<sup>8</sup> contains more information on LLFs.

# Publication of line loss factors

4.8. The LLFs used in Settlement are published on the Elexon Portal website<sup>9</sup>. The website contains the LLFs in standard industry data formats and in a summary form. A user guide with details on registering and using the portal is also available.

<sup>&</sup>lt;sup>7</sup> Energy can be lost for technical and non-technical reasons and losses normally occur by heat dissipation through power flowing in conductors and transformers. Losses can also reduce if a customer's action reduces power flowing in the distribution network. This might happen when a customer generates electricity and the produced energy is consumed locally.

<sup>&</sup>lt;sup>8</sup> The following page has links to BSCP128 and to our LLF methodology: <u>http://www.elexon.co.uk/reference/technical-operations/losses/</u>

<sup>&</sup>lt;sup>9</sup> The Elexon Portal can be accessed from <u>www.elexonportal.co.uk</u>

- 4.9. 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. As this charging statement is published a complete year before the LLFs for the charging year have been produced, Annex 5 is intentionally left blank, This statement will be reissed with Annex 5 populated once the LLFs have been calculated and audited. This should typically be more than three months prior to the statement coming into force.
- 4.11. When using the tables in Annex 5, reference should be made to the LLFC allocated to the MPAN to find the appropriate values.

# 5. Notes for Designated EHV Properties

# EDCM nodal costs

5.1. A table is provided in the accompanying spreadsheet which shows the underlying Long Run Incremental Cost (LRIC) nodal costs used to calculate the current EDCM charges. This spreadsheet is available to download from our website:

http://www.northernpowergrid.com/document-library/charges

5.2. These are illustrative of the modelled costs at the time that this statement was published. A new connection will result in changes to current network utilisations which will then form the basis of future prices. 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 of this statement.
- 5.5. The new Designated EHV Properties charges will be added to Annex 2 in the next full statement released.

# Charges for amended Designated EHV Properties

5.6. Where an existing Designated EHV Property is modified and energised in the charging year, we may revise its 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

- 5.7. For those premises where UoS is charged under the EDCM, some customers may be able to benefit from entering into a Demand Side Management (DSM) agreement with us.
- 5.8. DSM arrangements are based on a formal commitment by the customer to materially reduce their MIC in certain time periods, as determined by us, for active network management purposes other than normal planned or unplanned outages.

- 5.9. For new connections, the customer must make an express statement in their application that they have an interest in some, or all, of the import capacity for their intended connection or modified connection being interruptible for active network management purposes.
- 5.10. Where the customer enters into a DSM agreement by agreeing to reduce their MIC to meet the defined parameters in the agreement, reduced UoS charges will apply. The chargeable capacity will be equal to the MIC minus the capacity that is subject to restrictions under the DSM agreement. The scale of the reduction will vary by site and is linked to the LRIC element of the charge in line with the approved charging methodology.
- 5.11. Any reduction in UoS charges applicable to the customer will be assessed on a sitespecific basis by us. Any customers who wish to enquire whether they can take advantage of DSM should in the first instance contact:

Charges Policy Manager Manor House Station Road New Penshaw Houghton-le-Spring DH4 7LA e-mail:- <u>UoS.charges@northernpowergrid.com</u>

# 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 paragraphs.
- 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. In light of the COVID-19 pandemic, and Ofgem's published statement of 2 June 2020 setting out arrangements to "relax network charge payment terms for suppliers", eligible suppliers can apply for payment deferral terms for invoices dated between 2 June 2020 and 2 September 2020<sup>10</sup>.
- 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:

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. Northern Powergrid has no charges applicable to this section.

<sup>&</sup>lt;sup>10</sup> For more details and instruction on how to apply please see <u>https://www.energynetworks.org/electricity/regulation/supplier-credit.html</u>

# Appendix 1 - Glossary of Terms

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: <u>www.elexon.co.uk/ELEXON</u> <u>Documents/trading_arrangements.pdf</u>
Balancing and Settlement Code Procedure (BSCP)	A document of that title, as established or adopted and from time to time modified by the Panel in accordance with The Code, setting out procedures to be complied with (by Parties, Party Agents, BSC Agents, BSCCo, the Panel and others) in, and other matters relating to, the implementation of The Code.
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	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; Or
	A person from whom a User purchases, or proposes to purchase, electricity, at an entry point (who may from time to time be supplied with electricity as a customer of that user (or another electricity supplier) through an exit point).
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		
Distribution Connection and Use of System Agreement (DCUSA)	The DCUSA is a multi-party contract between the licensed electricity distributors, suppliers, generators and Offshore Transmission Owners (OFTOs) of Great Britain. It is a requirement that all licensed electricity distributors and suppliers become parties to the DCUSA.		
	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.		
	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) South Scotland	Scottish Hydro Electric Power Distribution plc Scottish Power
Distributor IDs	18		
Distributor IDS	19 20	South East England Southern Electric (and embedded networks in other areas)	UK Power Networks 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
	32	All	Utility Distribution Networks
Distribution Network Operator (DNO)	An electricity distributor who 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.		

Term	Definition
Distribution Services Area	The area specified by the Gas and Electricity Markets Authority within which each DNO must provide specified distribution services.
Distribution System	<ul> <li>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: <ul> <li>Grid Supply Points or generation sets or other entry points</li> </ul> </li> <li>to the points of delivery to: <ul> <li>Customers or Users or any transmission licensee in its capacity as operator of that licensee's transmission system or the Great Britain (GB) transmission system and includes any remote transmission assets (owned by a transmission licensee within England and Wales)</li> </ul> </li> <li>that are operated by that authorised distributor and any electrical plant, electricity meters, and metering equipment owned or operated by it in connection with the distribution of electricity, but does not include any part of the GB transmission system.</li> </ul>
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 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).
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.

Term	Definition
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 (NGET) 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 cannot be made available on demand, in accordance with the definitions in Engineering Recommendation P2/6.
Invalid Settlement Combination	A settlement combination that is not recognised as a valid combination in market domain data - see <u>https://www.elexonportal.co.uk/MDDVIEWER.</u>
kVA	Kilovolt ampere.
kVArh	Kilovolt ampere reactive hour.
kW	Kilowatt.
kWh	Kilowatt hour (equivalent to one "unit" of electricity).
Licensed Distribution Network Operator (LDNO)	The holder of a Licence to distribute electricity 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	annual consumption (kWh) maximum demand (kW) × hours in year
Low Voltage (LV)	Nominal voltages below 1kV.
Market Domain Data (MDD)	MDD is a central repository of reference data used by all Users involved in Settlement. It is essential to the operation of SVA trading arrangements.

Term	Definition
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	<ul> <li>A classification of Metering Systems used in the BSC which indicates how consumption is measured, i.e.:</li> <li>Measurement Class A - non-half-hourly metering equipment;</li> <li>Measurement Class B - non-half-hourly unmetered supplies;</li> <li>Measurement Class C - half-hourly metering equipment at or above 100kW premises;</li> <li>Measurement Class D - half-hourly unmetered supplies;</li> <li>Measurement Class E - half-hourly metering equipment below 100kW premises with CT metering;</li> <li>Measurement Class F - half hourly metering equipment at below 100kW premises CT or whole current metering, and at domestic premises; and</li> <li>Measurement Class G - half hourly metering equipment at below 100kW premises with whole current metering and not at domestic premises.</li> </ul>
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.
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.

Term	Definition
Master Registration Agreement (MRA)	The Master Registration Agreement (MRA) provides a governance mechanism to manage the processes established between electricity suppliers and distribution companies to enable electricity suppliers to transfer customers. It includes terms for the provision of Metering Point Administration Services (MPAS) Registrations.
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 $\rightarrow$ primary nested DNO $\rightarrow$ secondary nested DNO $\rightarrow$ 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 with the definitions in Engineering Recommendation P2/6.
Ofgem	Office of Gas and Electricity Markets - Ofgem is governed by GEMA and is responsible for the regulation of the distribution companies.
Profile Class (PC)	A categorisation applied to NHH MPANs and used in Settlement to group customers with similar consumption patterns to enable the calculation of consumption profiles.
Settlement	The determination and settlement of amounts payable in respect of charges (including reconciling charges) in accordance with the BSC.
Settlement Class (SC)	The combination of Profile Class, Line Loss Factor Class, Time Pattern Regime and Standard Settlement Configuration, by Supplier within a GSP group and used for Settlement.
Standard Settlement Configuration (SSC)	A standard metering configuration relating to a specific combination of Time Pattern Regimes.
Supercustomer	The method of billing Users for use of system on an aggregated basis, grouping together consumption and standing charges for all similar NHH metered Customers or aggregated HH metered Customers.
Supercustomer DUoS Report	A report of profiled data by Settlement Class providing counts of MPANs and units consumed.
Supplier	An organisation with a supply licence for electricity supplied to and/or exported from a metering point.
Supplier Volume Allocation (SVA)	As defined in the BSC.
Time Pattern Regime (TPR)	The pattern of switching behaviour through time that one or more meter registers follow.

Term	Definition
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.
Use of System Charges	Charges which are applicable to those parties which use the Distribution Network.
User	Someone that has a use of system agreement with the DNO e.g. a supplier, generator or other LDNO.

# Appendix 2 - Guidance notes<sup>11</sup>

## Background

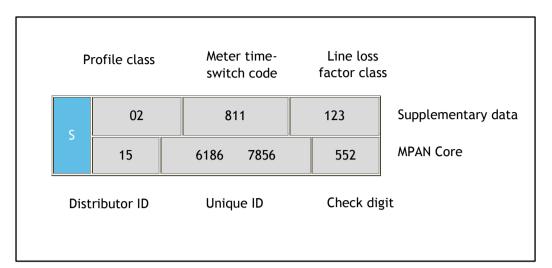
- 1.1. The electricity bill from your Supplier contains an element of charge to cover electricity distribution costs. This distribution charge covers the cost of operating and maintaining a safe and reliable Distribution System that forms the 'wires' that transport electricity between the national transmission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

## Meter point administration

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

<sup>&</sup>lt;sup>11</sup> These guidance notes are provided for additional information and do not form part of the application of charges.

#### Full MPAN diagram example



- 1.8. Generally, you will only need to know the Distributor ID and LLFC to identify the distribution charges for your premises. However, there are some premises where charges are specific to that site. In these instances the charges are identified by the MPAN core. The Distributor ID for Northern Powergrid Northeast is 15. 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:
  - (a) '01' Domestic customers with unrestricted supply
  - (b) '02' Domestic customers with restricted load, for example off-peak heating
  - (c) '03' Non-domestic customers with unrestricted supply
  - (d) '04' Non-domestic customers with restricted load, for example off-peak heating
  - (e) '05' Non-domestic maximum demand customers with a Load Factor of less than 20%
  - (f) '06' Non-domestic maximum demand customers with a Load Factor between 20% and 30%
  - (g) '07' Non-domestic maximum demand customers with a Load Factor between 30% and 40%
  - (h) '08' Non-domestic maximum demand customers with a Load Factor over 40% or non-half-hourly metered generation customers
  - (i) '00' Half-hourly metered demand and generation customers
- 1.10. Unmetered Supplies will be allocated to profile class 01, 08 or 00 depending on the type of load or the measurement method of the load.

1.11. The allocation of the profile class will affect your charges. If you feel that you have been allocated the wrong profile class, please contact your Supplier as they are responsible for this.

#### Your charges

- 1.12. All distribution charges that relate to our Distributor ID 15 are provided in this statement.
- 1.13. You can identify your charges by referencing your LLFC, 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 or Annex 6. When identifying charges in Annex 2, please note that some LLFCs have more than one charge. In this instance you will need to select the correct charge by cross referencing with the MPAN core provided in the table.
- 1.14. Once you have identified which charge structure applies to your MPAN then you will be able to calculate an estimate of your distribution charge using the calculator provided in the spreadsheet 'Schedule of charges and other tables' found in the sheet called 'Charge Calculator'. This spreadsheet can be downloaded from our website http://www.northernpowergrid.com/document-library/charges.

#### Reducing your charges

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

## Reactive power and reactive power charges

- 1.17. Reactive power is a separately charged component of connections that are half-hourly metered. Reactive power charges are generally avoidable if 'best practice' design of the properties' electrical installation has been provided in order to maintain a power factor between 0.95 and unity at the Metering Point.
- 1.18. Reactive Power (kVAr) is the difference between working power (active power measured in kW) and total power consumed (apparent power measured in kVA).

Essentially it is a measure of how efficiently electrical power is transported through an electrical installation or a Distribution System.

- 1.19. Power flowing with a power factor of unity results in the most efficient loading of the Distribution System. Power flowing with a power factor of less than 0.95 results in much higher losses in the Distribution System, a need to potentially provide higher capacity electrical equipment and consequently a higher bill for you the consumer. A comparatively small improvement in power factor can bring about a significant reduction in losses since losses are proportional to the square of the current.
- 1.20. Different types of electrical equipment require some 'reactive power' in addition to 'active power' in order to work effectively. Electric motors, transformers and fluorescent lighting, for example, may produce poor power factors due to the nature of their inductive load. However, if good design practice is applied then the poor power factor of appliances can be corrected as near as possible to source. Alternatively, poor power factor can be corrected centrally near to the meter.
- 1.21. There are many advantages that can be achieved by correcting poor power factor. These include: reduced energy bills through lower reactive charges, lower capacity charges and reduced power consumption and reduced voltage drop in long cable runs.

#### Site-specific EDCM charges

- 1.22. 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 one of two approved approaches: Long Run Incremental Cost (LRIC) or Forward Cost Pricing (FCP); we use the LRIC methodology. The EDCM will apply to Customers connected at Extra-High Voltage or connected at High Voltage and metered at a high voltage substation.
- 1.23. 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.
- 1.24. The charges under the EDCM comprise of the following individual components:

a) Fixed charge (pence/MPAN/day) - This charge recovers operational costs associated with those connection assets that are provided for the 'sole' use of the customer. The value of these assets is used as a basis to derive the charge.

b) Capacity charge (pence/kVA/day) - This charge comprises the relevant LRIC 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 section 1.

The LRIC 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 LRIC 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 LRIC 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.

- 1.25. 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.
- 1.26. 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

	Northern Po	owergrid (Northeast)	plc - Effective	from 1 April 2	020 - Final LV and HV charge	s
Time Bands for Hal	If Hourly Meter	ed Properties			Time Bands for H	lalf
Time periods	Red Time Band	Amber Time Band	Green Time Band			В
Monday to Friday (Including Bank Holidays) All Year	16:00 to 19:30	08:00 to 16:00 19:30 to 22:00	00:00 to 08:00 22:00 to 24:00		Monday to Friday (Including Bank Holidays) November to February Inclusive	
Saturday and Sunday All Year			00:00 to 24:00		Monday to Friday (Including Bank Holidays) April to October Inclusive and March	
Notes		Saturday and Sunday All year				

Time Bands for H	alf Hourly Unm	netered Propert	ties				
	Black Time Band	Yellow Time Band	Green Time Band				
Monday to Friday (Including Bank Holidays) November to February Inclusive	16:00 to 19:30	08:00 to 16:00 19:30 to 22:00	00:00 to 08:00 22:00 to 24:00				
Monday to Friday (Including Bank Holidays) April to October Inclusive and March		08:00 to 22:00	00:00 to 08:00 22:00 to 24:00				
Saturday and Sunday All year			00:00 to 24:00				
Notes	All the above times are in UK Clock time						

	l									
						Notes		All the above times a	re in UK Clock time	
Tariff name	Open LLFCs	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge(HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh	Closed LLFCs
Domestic Unrestricted	1	1	2.425			6.69				998, 999
Domestic Two Rate	2	2	2.757	1.132		6.69				
Domestic Off Peak (related MPAN)	12	2	1.258							
Small Non Domestic Unrestricted	203	3	2.550			7.05				
Small Non Domestic Two Rate	204	4	2.778	1.173		7.05				
Small Non Domestic Off Peak (related MPAN)	205	4	1.357							
LV Medium Non-Domestic	257	5-8	2.423	1.123		36.67				
LV Sub Medium Non-Domestic	265	5-8	2.645	1.169		34.56				
HV Medium Non-Domestic	304	5-8	1.658	1.101		324.00				
LV Network Domestic	249	0	8.018	1.933	1.116	6.69				
LV Network Non-Domestic Non-CT	278	0	8.897	2.044	1.123	7.05				
LV HH Metered	251	0	5.254	1.575	1.093	17.93	2.08	4.58	0.145	
LV Sub HH Metered	293	0	4.323	1.435	1.088	17.93	2.77	4.41	0.088	
HV HH Metered	301	0	3.539	1.325	1.083	170.39	2.74	4.76	0.062	
NHH UMS category A	506	8	2.013							
NHH UMS category B	507	1	2.327							
NHH UMS category C	508	1	3.403							
NHH UMS category D	509	1	1.803							
LV UMS (Pseudo HH Metered)	554 & 555	0	18.967	1.871	1.109					
LV Generation NHH or Aggregate HH	774	8&0	(0.732)							
LV Sub Generation NHH	776	8	(0.655)							
LV Generation Intermittent	792	0	(0.732)						0.117	
LV Generation Intermittent no RP charge	392	0	(0.732)							
LV Generation Non-Intermittent	794	0	(4.921)	(0.620)	(0.042)				0.117	
LV Generation Non-Intermittent no RP charge	394	0	(4.921)	(0.620)	(0.042)					
LV Sub Generation Intermittent	793	0	(0.655)						0.112	
LV Sub Generation Intermittent no RP charge	393	0	(0.655)							
LV Sub Generation Non-Intermittent	795	0	(4.411)	(0.551)	(0.038)				0.112	
LV Sub Generation Non-Intermittent no RP charge	395	0	(4.411)	(0.551)	(0.038)					
HV Generation Intermittent	796	0	(0.414)			100.24			0.090	
HV Generation Intermittent no RP charge	396	0	(0.414)			100.24				
HV Generation Non-Intermittent	798	0	(2.833)	(0.326)	(0.028)	100.24			0.090	
HV Generation Non-Intermittent no RP charge	398	0	(2.833)	(0.326)	(0.028)	100.24				

#### Northern Powergrid (Northeast) plc - Effective from 1 April 2020 - Final EDCM charges

Time Periods for Desi	gnated EHV Properties
Time periods	Super Red Time Band
Monday to Friday (Including Bank Holidays) November to February Inclusive	1600 - 1930
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)
	601	1592001005770 1592101005776		701	1574000216135 1594001005774	EHV Site Specific - Generation Exempt (LLFC 601 & 701)		750.52	0.86	0.86				
	603	1592001051182				EHV Site Specific (LLFC 603)		9,284.85	1.87	1.87				
	604	MSID_7299		727	MSID_7300	EHV Site Specific (LLFC 604 & 727)		67.63	1.04	1.04		1,352.54	0.05	0.05
	605	1592001092676				EHV Site Specific (LLFC 605)	0.298	2,262.80	1.91	1.91				
	606	1592001092719				EHV Site Specific (LLFC 606)	0.407	4,525.59	2.13	2.13				
	607	1592001092728				EHV Site Specific (LLFC 607)	0.891	4,525.59	3.34	3.34				
	608	1592001092737				EHV Site Specific (LLFC 608)		4,525.59	3.35	3.35				
	609	1592001046085				EHV Site Specific (LLFC 609)		851.42	3.32	3.32				
	611	1592001111628				EHV Site Specific (LLFC 611)		3,957.05	6.40	6.40				
	612	1592001073112		704	1594001073116	EHV Site Specific (LLFC 612 & 704)	0.768	69.53	2.22	2.22	( 0.971)	695.34	0.05	0.05
	614	1592001055257		709	1594001055250	EHV Site Specific (LLFC 614 & 709)		7,341.61	0.79	0.79		1,468.32	0.05	0.05
	615 & 616	1592001055239 1592001055248				EHV Site Specific (LLFC 615 & 616)	0.294	1,930.93	2.62	2.62				
	617	1592001110572				EHV Site Specific (LLFC 617)		10,797.33	1.62	1.62				
	618	1592001094308				EHV Site Specific (LLFC 618)	0.252	3,785.59	5.68	5.68				
	619	1570000150382		710	159400000038	EHV Site Specific - Generation Exempt (LLFC 619 & 710)	0.039	25.66	1.49	1.49				
	620	1592001007476				EHV Site Specific (LLFC 620)		1,702.83	5.02	5.02				
	621	1592001007494				EHV Site Specific (LLFC 621)	0.122	87.74	2.30	2.30				
	622	1592001036574		711	1594001036578	EHV Site Specific (LLFC 622 & 711)	0.143	931.19	1.61	1.61	( 0.395)	465.59	0.05	0.05
	624	1592001063540		804	1574000324772	EHV Site Specific (LLFC 624 & 804)	0.012	3,469.69	2.19	2.19		1,085.83	0.05	0.05
	625	1592001006890		748	1594001006893	EHV Site Specific - Generation Exempt (LLFC 625 & 748)	1.029	30.63	2.03	2.03				
	627	1570000199077		729	1574000199083	EHV Site Specific - Generation Exempt (LLFC 627 & 729)		1,139.90	0.86	0.86				
	626	1592001005637				EHV Site Specific (LLFC 626)	0.227	3,547.63	4.64	4.64				
	628	1592001111405				EHV Site Specific (LLFC 628)	0.912	681.38	4.60	4.60				
	631	1592001110216				EHV Site Specific (LLFC 631)		87.74	3.94	3.94				
	632	1592001007467				EHV Site Specific (LLFC 632)	0.265	290.44	4.34	4.34				
	633	1580001273940 1580001273950				EHV Site Specific (LLFC 633)	0.180	3,895.20	2.75	2.75				
	637	1592001141543		728	1594001141547	EHV Site Specific - Generation Exempt (LLFC 637 & 728)	0.044	1,337.41	1.41	1.41				
	680	1580000675845		759	1574000275033	EHV Site Specific (LLFC 680 & 759)	0.146	3.36	1.12	1.12		141.86	0.05	0.05
	681	1580000872387		760	1574000283735	EHV Site Specific (LLFC 681 & 760)	0.250	83.55	1.24	1.24		3,342.05	0.05	0.05
NO	RTHERN F	OWERGRID (N	ORTHEAST) PL	C		Page 38 of 50						JUNE 2020	FINAL VO.4	1

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

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)
	544	1570000124531		761	159400000047	EHV Site Specific - Generation Exempt (LLFC 544 & 761)		11.91	0.90	0.90				
	682	1580000909309		762	1574000285644	EHV Site Specific (LLFC 682 & 762)	0.769	223.41	1.28	1.28	( 0.972)	1,218.60	0.05	0.05
	691	1592101007746				EHV Site Specific (LLFC 691)	0.098	43.87	4.17	4.17				
	683	1570000166434		763	159400000029	EHV Site Specific - Generation Exempt (LLFC 683 & 763)		6.59	1.12	1.12				
	692	1580000867554 1580000911799				EHV Site Specific (LLFC 692)	1.280	87.74	3.01	3.01				
	693	1592001074941				EHV Site Specific (LLFC 693)	0.972	43.87	4.16	4.16				
	694	1570000190631				EHV Site Specific (LLFC 694)	0.475	87.74	5.79	5.79				
	695	1580000918163 1580000918172				EHV Site Specific (LLFC 695)	0.012	87.74	3.81	3.81				
	684	1580001085400		764	1574000298500	EHV Site Specific (LLFC 684 & 764)	0.005	678.42	1.18	1.18	( 0.117)	4,523.34	0.05	0.05
	685	1580001132432		765	1574000302403	EHV Site Specific (LLFC 685 & 765)		36.14	0.75	0.75		990.29	0.05	0.05
	686	1580001150566 1580001150575		766	1574000303940 1574000303959	EHV Site Specific (LLFC 686 & 766)		304.87	0.56	0.56		18,925.70	0.05	0.05
	687	TBC				EHV Site Specific (LLFC 687)		2,334.46	1.91	1.91				
	688	1580001208659		767	1574000309384	EHV Site Specific (LLFC 688 & 767)		6.27	1.63	1.63		714.73	0.05	0.05
	689	1580001208668		768	1574000309375	EHV Site Specific (LLFC 689 & 768)		67.94	1.53	1.53		2,932.44	0.05	0.05
	690	1580001174414		782	1574000306374	EHV Site Specific (LLFC 690 & 782)	0.283	41.68	2.75	2.75		1,500.33	0.05	0.05
	540	1580001190763		783	1574000307917	EHV Site Specific (LLFC 540 & 783)	0.001	2.41	1.18	1.18	( 0.041)	579.27	0.05	0.05
	541	1580001197945		784	1574000308405	EHV Site Specific (LLFC 541 & 784)	0.768	162.51	0.98	0.98	( 0.971)	2,401.26	0.05	0.05
	542	1580001278406		785	1574000315040	EHV Site Specific (LLFC 542 & 785)		219.88	0.78	0.78		406.77	0.05	0.05
	543	1580001278415				EHV Site Specific (LLFC 543)		1,442.00	1.06	1.06				
	545	1580001417656				EHV Site Specific (LLFC 545)	0.053	19,772.26	1.46	1.46				
	547	1580001440530		787	1574000324470	EHV Site Specific (LLFC 547 & 787)		14.56	1.55	1.55		1,005.58	0.05	0.05
	548	1580001440520		788	1574000324461	EHV Site Specific (LLFC 548 & 788)		55.22	1.56	1.56		4,778.94	0.05	0.05
	549	1580001487955		789	1574000327286	EHV Site Specific (LLFC 549 & 789)		293.09	1.08	1.08		20,711.45	0.05	0.05
	560	MSID_7331		806	MSID_7333	EHV Site Specific (LLFC 560 & 806)		18.38	0.86	0.86		1,525.26	0.05	0.05
	561	1580001519739		807	1574000328420	EHV Site Specific (LLFC 561 & 807)		735.37	1.87	1.87		9,482.39	0.05	0.05
	563	1580001448895		802	1574000324790	EHV Site Specific (LLFC 563 & 802)	0.618	1.52	1.87	1.87		143.70	0.05	0.05
	562	1580001448900		769	1574000324781	EHV Site Specific (LLFC 562 & 769)	0.618	1.52	1.76	1.76		143.70	0.05	0.05
	564	MSID_7353		803	MSID_7354	EHV Site Specific (LLFC 564 & 803)		281.20	2.07	2.07		281.21	0.05	0.05
	565	1580001498380		805	1574000327505	EHV Site Specific (LLFC 565 & 805)	0.104	147.81	1.44	1.44	( 0.172)	578.80	0.05	0.05
	567	1580001531639		809	1574000328810	EHV Site Specific (LLFC 567 & 809)	0.314	7.86	1.81	1.81		687.47	0.05	0.05
	566	1580001511800		808	1574000328094	EHV Site Specific (LLFC 566 & 808)	0.001	572.29	1.21	1.21	( 0.014)	2,298.31	0.05	0.05
	696	1592007351503				EHV Site Specific (LLFC 696)	0.997	43.87	6.09	6.09				
	568	1580001589053				EHV Site Specific (LLFC 568)	1.077	425.71	2.75	2.75				

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

Northern Powergrid (Northeast) plc - Effective from 1 April 2020 - Final EDCM import charges

Import Unique Identifier	LLFC	Import 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)
	601	1592001005770 1592101005776	EHV Site Specific - Generation Exempt (LLFC 601 & 701)		750.52	0.86	0.86
	603		EHV Site Specific (LLFC 603)		9,284.85	1.87	1.87
	604 605	MSID_7299 1592001092676	EHV Site Specific (LLFC 604 & 727) EHV Site Specific (LLFC 605)	0.298	67.63 2,262.80	1.04 1.91	1.04 1.91
	606		EHV Site Specific (LLFC 606)	0.298	4,525.59	2.13	2.13
	607	1592001092728	EHV Site Specific (LLFC 607)	0.891	4,525.59	3.34	3.34
	608	1592001092737	EHV Site Specific (LLFC 608)		4,525.59	3.35	3.35
	609	1592001046085	EHV Site Specific (LLFC 609)		851.42	3.32	3.32
	611	1592001111628	EHV Site Specific (LLFC 611)		3,957.05	6.40	6.40
	612	1592001073112	EHV Site Specific (LLFC 612 & 704)	0.768	69.53	2.22	2.22
	614 615 &	1592001055257 1592001055239	EHV Site Specific (LLFC 614 & 709)		7,341.61	0.79	0.79
	616	1592001055248	EHV Site Specific (LLFC 615 & 616)	0.294	1,930.93	2.62	2.62
	617		EHV Site Specific (LLFC 617)		10,797.33	1.62	1.62
	618		EHV Site Specific (LLFC 618)	0.252	3,785.59	5.68	5.68
	619	1570000150382	EHV Site Specific - Generation Exempt (LLFC 619 & 710)	0.039	25.66	1.49	1.49
	620	1592001007476	EHV Site Specific (LLFC 620)		1,702.83	5.02	5.02
	621	1592001007494		0.122	87.74	2.30	2.30
	622 624	1592001036574 1592001063540	EHV Site Specific (LLFC 622 & 711) EHV Site Specific (LLFC 624 & 804)	0.143 0.012	931.19 3,469.69	1.61 2.19	1.61 2.19
	624	1592001063540	EHV Site Specific - Generation Exempt (LLFC 625 & 748)	1.029	3,469.69	2.19	2.19
	627	1570000199077	EHV Site Specific - Generation Exempt (LLFC 625 & 746)	1.023	1,139.90	0.86	0.86
	626	1592001005637	EHV Site Specific (LLFC 626)	0.227	3,547.63	4.64	4.64
	628	1592001111405	EHV Site Specific (LLFC 628)	0.912	681.38	4.60	4.60
	631		EHV Site Specific (LLFC 631)		87.74	3.94	3.94
	632	1592001007467	EHV Site Specific (LLFC 632)	0.265	290.44	4.34	4.34
	633	1580001273940 1580001273950	EHV Site Specific (LLFC 633)	0.180	3,895.20	2.75	2.75
	637	1592001141543	EHV Site Specific - Generation Exempt (LLFC 637 & 728)	0.044	1,337.41	1.41	1.41
	680	1580000675845	EHV Site Specific (LLFC 680 & 759)	0.146	3.36	1.12	1.12
	681 544	1580000872387 1570000124531	EHV Site Specific (LLFC 681 & 760) EHV Site Specific - Generation Exempt (LLFC 544 & 761)	0.250	<u>83.55</u> 11.91	1.24 0.90	1.24 0.90
	682	1580000909309	EHV Site Specific (LLFC 682 & 762)	0.769	223.41	1.28	1.28
	691		EHV Site Specific (LLFC 691)	0.098	43.87	4.17	4.17
	683	1570000166434	EHV Site Specific - Generation Exempt (LLFC 683 & 763)		6.59	1.12	1.12
	692	1580000867554 1580000911799	EHV Site Specific (LLFC 692)	1.280	87.74	3.01	3.01
	693	1592001074941	EHV Site Specific (LLFC 693)	0.972	43.87	4.16	4.16
	694	1570000190631	EHV Site Specific (LLFC 694)	0.475	87.74	5.79	5.79
	695	1580000918163 1580000918172	EHV Site Specific (LLFC 695)	0.012	87.74	3.81	3.81
	684 685	1580001085400 1580001132432	EHV Site Specific (LLFC 684 & 764) EHV Site Specific (LLFC 685 & 765)	0.005	678.42 36.14	1.18 0.75	1.18 0.75
	686	1580001150566	EHV Site Specific (LLFC 686 & 766)		304.87	0.75	0.75
	687	1580001150575 TBC	EHV Site Specific (LLFC 687)		2,334.46	1.91	1.91
	688	1580001208659	EHV Site Specific (LLFC 688 & 767)		6.27	1.63	1.63
	689	1580001208668	EHV Site Specific (LLFC 689 & 768)		67.94	1.53	1.53
	690		EHV Site Specific (LLFC 690 & 782)	0.283	41.68	2.75	2.75
	540		EHV Site Specific (LLFC 540 & 783)	0.001	2.41	1.18	1.18
	541 542		EHV Site Specific (LLFC 541 & 784) EHV Site Specific (LLFC 542 & 785)	0.768	162.51 219.88	0.98 0.78	0.98 0.78
	542		EHV Site Specific (LLFC 542 & 765)		1,442.00	1.06	1.06
	545		EHV Site Specific (LLFC 545)	0.053	19,772.26	1.46	1.46
	547	1580001440530	EHV Site Specific (LLFC 547 & 787)		14.56	1.55	1.55
	548		EHV Site Specific (LLFC 548 & 788)		55.22	1.56	1.56
	549	1580001487955			293.09	1.08	1.08
	560	MSID_7331	EHV Site Specific (LLFC 560 & 806)		18.38	0.86	0.86
	561 563		EHV Site Specific (LLFC 561 & 807) EHV Site Specific (LLFC 563 & 802)	0.618	735.37 1.52	1.87 1.87	1.87 1.87
	562		EHV Site Specific (LLFC 562 & 769)	0.618	1.52	1.76	1.87
	564	MSID_7353	EHV Site Specific (LLFC 564 & 803)		281.20	2.07	2.07
	565		EHV Site Specific (LLFC 565 & 805)	0.104	147.81	1.44	1.44
	567		EHV Site Specific (LLFC 567 & 809)	0.314	7.86	1.81	1.81
	566		EHV Site Specific (LLFC 566 & 808)	0.001	572.29	1.21	1.21
	696		EHV Site Specific (LLFC 696)	0.997	43.87	6.09	6.09
	568	1580001589053	EHV Site Specific (LLFC 568)	1.077	425.71	2.75	2.75

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

Northern Powergrid (Northeast) plc - Effective from 1 April 2020 - Final EDCM export charges

Export Unique Identifier	LLFC	Export MPANs/MSIDs	Name	Su uni	Export Iper Red it charge p/kWh)	Export fixed charge (p/day)	Export capacity charge (p/kVA/day)	Export exceeded capacity charge (p/kVA/day)
	701	1574000216135 1594001005774	EHV Site Specific - Generation Exempt (LLFC 601 & 701)					
	727	MSID_7300	EHV Site Specific (LLFC 604 & 727)			1,352.54	0.05	0.05
	704	1594001073116	EHV Site Specific (LLFC 612 & 704)	(	0.971)	695.34	0.05	0.05
	709	1594001055250	EHV Site Specific (LLFC 614 & 709)			1,468.32	0.05	0.05
	710	159400000038	EHV Site Specific - Generation Exempt (LLFC 619 & 710)					
	711	1594001036578	EHV Site Specific (LLFC 622 & 711)	(	0.395)	465.59	0.05	0.05
	804	1574000324772	EHV Site Specific (LLFC 624 & 804)			1,085.83	0.05	0.05
	748	1594001006893	EHV Site Specific - Generation Exempt (LLFC 625 & 748)					
	729	1574000199083	EHV Site Specific - Generation Exempt (LLFC 627 & 729)					
	728	1594001141547	EHV Site Specific - Generation Exempt (LLFC 637 & 728)					
	759	1574000275033	EHV Site Specific (LLFC 680 & 759)			141.86	0.05	0.05
	760	1574000283735	EHV Site Specific (LLFC 681 & 760)			3,342.05	0.05	0.05
	761	1594000000047	EHV Site Specific - Generation Exempt (LLFC 544 & 761)					
	762	1574000285644	EHV Site Specific (LLFC 682 & 762)	(	0.972)	1,218.60	0.05	0.05
	763	159400000029	EHV Site Specific - Generation Exempt (LLFC 683 & 763)		,			
	764		EHV Site Specific (LLFC 684 & 764)	(	0.117)	4,523.34	0.05	0.05
	765	1574000302403	EHV Site Specific (LLFC 685 & 765)		,	990.29	0.05	0.05
	766	1574000303940 1574000303959	EHV Site Specific (LLFC 686 & 766)			18,925.70	0.05	0.05
	767	1574000309384	EHV Site Specific (LLFC 688 & 767)			714.73	0.05	0.05
	768	1574000309375	EHV Site Specific (LLFC 689 & 768)			2,932.44	0.05	0.05
	782	1574000306374	EHV Site Specific (LLFC 690 & 782)			1,500.33	0.05	0.05
	783	1574000307917	EHV Site Specific (LLFC 540 & 783)	(	0.041)	579.27	0.05	0.05
	784	1574000308405	EHV Site Specific (LLFC 541 & 784)	Ì	0.971)	2,401.26	0.05	0.05
	785	1574000315040	EHV Site Specific (LLFC 542 & 785)		,	406.77	0.05	0.05
	787	1574000324470	EHV Site Specific (LLFC 547 & 787)			1,005.58	0.05	0.05
	788	1574000324461	EHV Site Specific (LLFC 548 & 788)			4,778.94	0.05	0.05
	789	1574000327286	EHV Site Specific (LLFC 549 & 789)			20,711.45	0.05	0.05
	806	MSID 7333	EHV Site Specific (LLFC 560 & 806)			1,525.26	0.05	0.05
	807	1574000328420	EHV Site Specific (LLFC 561 & 807)			9,482.39	0.05	0.05
	802	1574000324790	EHV Site Specific (LLFC 563 & 802)			143.70	0.05	0.05
	769		EHV Site Specific (LLFC 562 & 769)			143.70	0.05	0.05
	803	MSID 7354	EHV Site Specific (LLFC 564 & 803)			281.21	0.05	0.05
	805		EHV Site Specific (LLFC 565 & 805)	(	0.172)	578.80	0.05	0.05
	809	1574000328810	EHV Site Specific (LLFC 567 & 809)		,	687.47	0.05	0.05
	808	1574000328094	EHV Site Specific (LLFC 566 & 808)	(	0.014)	2,298.31	0.05	0.05

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

	Norther	n Powei			-	ril 2020 - Final	LV and HV ta	riffs					
NHH preserved charges/additional LLFCs													
	Closed LLFCs												
Notes:	Unit time periods are as specified in the SSC.												

			HH preserved char	ges/additional LLF	Cs					
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		
Unit charges in t Unit charges in t	Time periods Julit charges in the red time band apply – between 16:00 and 19:30, Monday to Friday including bank holidays. Julit charges in the amber time band apply – between 08:00 and 16:00; and between 19:30 and 22:00, Monday to Friday including bank holidays. Julit charges in the green time band apply – between 00:00 and 08:00; and between 22:00 and 24:00, Monday to Friday including bank holidays, and between 00:00 and 24:00 Saturday and Sunday Ill times are UK clock-time.									

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Time Bands for Half Hour	rly Metered Pro	perties			Ti	me Bands for H	lalf Hourly Unm	etered Propert	es
Time periods	Red Time Band	Amber Time Band	Green Time Band				Black Time Band	Yellow Time Band	Green Time Band
Monday to Friday (Including Bank Holidays) All Year	16:00 to 19:30	08:00 to 16:00 19:30 to 22:00	00:00 to 08:00 22:00 to 24:00		Monday to Friday (Including Bank Hol November to Febru		16:00 to 19:30	08:00 to 16:00 19:30 to 22:00	00:00 to 08:00 22:00 to 24:00
Saturday and Sunday All Year			00:00 to 24:00		Monday to Friday (Including Bank Hol April to October Inc			08:00 to 22:00	00:00 to 08:00 22:00 to 24:00
Notes	All the at	oove times are in UK C	lock time		Saturday and Sunda All year	ау			00:00 to 24:00
				1	Notes		All the above times a	e in UK Clock time	
Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge(HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO LV: Domestic Unrestricted	150	1	1.444			3.98			
LDNO LV: Domestic Two Rate	151	2	1.642	0.674		3.98			
LDNO LV: Domestic Off Peak (related MPAN)	152	2	0.749						
LDNO LV: Small Non Domestic Unrestricted	153	3	1.519			4.20			
LDNO LV: Small Non Domestic Two Rate	154	4	1.654	0.699		4.20			
LDNO LV: Small Non Domestic Off Peak (related MPAN)	155	4	0.808						
LDNO LV: LV Medium Non-Domestic	156	5-8	1.443	0.669		21.84			
LDNO LV: LV Network Domestic	199	0	4.775	1.151	0.665	3.98			
LDNO LV: LV Network Non-Domestic Non-CT	206	0	5.298	1.217	0.669	4.20			
LDNO LV: LV HH Metered	157	0	3.129	0.938	0.651	10.68	1.24	2.73	0.086
LDNO LV: NHH UMS category A	37	8	1.199						
LDNO LV: NHH UMS category B	38	1	1.386						
LDNO LV: NHH UMS category C	39	1	2.027						
LDNO LV: NHH UMS category D	40	1	1.074						
LDNO LV: LV UMS (Pseudo HH Metered)	170	0	11.295	1.114	0.660				
LDNO LV: LV Generation NHH or Aggregate HH	172	8&0	(0.732)						
LDNO LV: LV Generation Intermittent	173	0	(0.732)						0.117
LDNO LV: LV Generation Non-Intermittent	174	0	(4.921)	(0.620)	(0.042)				0.117
LDNO HV: Domestic Unrestricted	158	1	0.938			2.59			
LDNO HV: Domestic Two Rate	159	2	1.066	0.438		2.59			
LDNO HV: Domestic Off Peak (related MPAN)	160	2	0.487						
LDNO HV: Small Non Domestic Unrestricted	161	3	0.986			2.73			
LDNO HV: Small Non Domestic Two Rate	162	4	1.074	0.454		2.73			
LDNO HV: Small Non Domestic Off Peak (related MPAN)	163	4	0.524						
LDNO HV: LV Medium Non-Domestic	164	5-8	0.937	0.434		14.18			
LDNO HV: LV Network Domestic	207	0	3.101	0.748	0.431	2.59			
LDNO HV: LV Network Non-Domestic Non-CT	208	0	3.440	0.790	0.434	2.73			
LDNO HV: LV HH Metered	165	0	2.032	0.609	0.423	6.93	0.80	1.77	0.056
LDNO HV: LV Sub HH Metered	166	0	2.826	0.938	0.711	11.72	1.81	2.88	0.058
LDNO HV: HV HH Metered	167	0	2.842	1.063	0.869	136.81	2.20	3.82	0.050
LDNO HV: NHH UMS category A	41	8	0.779						
LDNO HV: NHH UMS category B	42	1	0.900						
LDNO HV: NHH UMS category C	43	1	1.316						
LDNO HV: NHH UMS category D	44	1	0.697						
LDNO HV: LV UMS (Pseudo HH Metered)	171	0	7.334	0.723	0.429				
LDNO HV: LV Generation NHH or Aggregate HH	175	8&0	(0.732)						
LDNO HV: LV Sub Generation NHH	176	8	(0.655)						
LDNO HV: LV Generation Intermittent	177	0	(0.732)						0.117
LDNO HV: LV Generation Non-Intermittent	178	0	(4.921)	(0.620)	(0.042)				0.117
LDNO HV: LV Sub Generation Intermittent	179	0	(0.655)						0.112
LDNO HV: LV Sub Generation Non-Intermittent	180	0	(4.411)	(0.551)	(0.038)				0.112
LDNO HV: HV Generation Intermittent	181	0	(0.414)			0.00			0.090
LDNO HV: HV Generation Non-Intermittent	182	0	(2.833)	(0.326)	(0.028)	0.00			0.090
LDNO HVplus: Domestic Unrestricted	50	1	0.670			1.85			
LDNO HVplus: Domestic Two Rate	51	2	0.761	0.313		1.85			
LDNO HVplus: Domestic Off Peak (related MPAN)	52	2	0.347						
LDNO HVplus: Small Non Domestic Unrestricted	53	3	0.704			1.95			
LDNO HVplus: Small Non Domestic Two Rate	54	4	0.767	0.324		1.95			

Annex 4 Charges applied to El			Unit charge 1	Unit charge 2					
Tariff name	Unique billing	PCs	(NHH) or red/black	(NHH) or amber/yellow	Green charge(HH)	Fixed charge	Capacity charge	Exceeded capacity charge	Reactive power charge
rann name	identifier	PCS	charge (HH)	charge (HH)	p/kWh	p/MPAN/day	p/kVA/day	p/kVA/day	p/kVArh
LDNO HVplus: Small Non Domestic Off Peak (related MPAN)	55	4	p/kWh 0.375	p/kWh					
				0.210		10.12			
LDNO HVplus: LV Medium Non-Domestic	56	5-8	0.669	0.310		10.12			
LDNO HVplus: LV Sub Medium Non-Domestic	0	5-8	1.219	0.539		15.93			
LDNO HVplus: HV Medium Non-Domestic	0	5-8	0.930	0.617		181.68			
LDNO HVplus: LV Network Domestic	209	0	2.214	0.534	0.308	1.85			
LDNO HVplus: LV Network Non-Domestic Non-CT	210	0	2.456	0.564	0.310	1.95			
LDNO HVplus: LV HH Metered	57	0	1.451	0.435	0.302	4.95	0.57	1.26	0.040
LDNO HVplus: LV Sub HH Metered	58	0	1.992	0.661	0.501	8.26	1.28	2.03	0.041
LDNO HVplus: HV HH Metered	59	0	1.984	0.743	0.607	95.54	1.54	2.67	0.035
LDNO HVplus: NHH UMS category A	45	8	0.556						
LDNO HVplus: NHH UMS category B	46	1	0.642						
LDNO HVplus: NHH UMS category C	47	1	0.940						
			0.498						
LDNO HVplus: NHH UMS category D	48	1							
LDNO HVplus: LV UMS (Pseudo HH Metered)	61	0	5.237	0.517	0.306				
LDNO HVplus: LV Generation NHH or Aggregate HH	62	8	(0.337)						
LDNO HVplus: LV Sub Generation NHH	63	8	(0.367)						
LDNO HVplus: LV Generation Intermittent	64	0	(0.337)						0.054
LDNO HVplus: LV Generation Non-Intermittent	65	0	(2.268)	(0.286)	(0.019)				0.054
LDNO HVplus: LV Sub Generation Intermittent	66	0	(0.367)						0.063
LDNO HVplus: LV Sub Generation Non-Intermittent	67	0	(2.473)	(0.309)	(0.021)				0.063
LDNO HVplus: HV Generation Intermittent	68	0	(0.414)			100.24			0.090
LDNO HVplus: HV Generation Non-Intermittent	69	0	(2.833)	(0.326)	(0.028)	100.24			0.090
LDNO EHV: Domestic Unrestricted	70	1	0.465			1.28			
LDNO EHV: Domestic Two Rate	71	2	0.529	0.217		1.28			
LDNO EHV: Domestic Off Peak (related MPAN)	72	2	0.241						
LDNO EHV: Small Non Domestic Unrestricted	73	3	0.489			1.35			
LDNO EHV: Small Non Domestic Two Rate	74	4	0.533	0.225		1.35			
				0.225		1.55			
LDNO EHV: Small Non Domestic Off Peak (related MPAN)	75	4	0.260						
LDNO EHV: LV Medium Non-Domestic	76	5-8	0.465	0.216		7.04			
LDNO EHV: LV Sub Medium Non-Domestic	0	5-8	0.847	0.375		11.07			
LDNO EHV: HV Medium Non-Domestic	0	5-8	0.646	0.429		126.30			
LDNO EHV: LV Network Domestic	211	0	1.539	0.371	0.214	1.28			
LDNO EHV: LV Network Non-Domestic Non-CT	212	0	1.708	0.392	0.216	1.35			
LDNO EHV: LV HH Metered	77	0	1.008	0.302	0.210	3.44	0.40	0.88	0.028
LDNO EHV: LV Sub HH Metered	78	0	1.385	0.460	0.349	5.74	0.89	1.41	0.028
LDNO EHV: HV HH Metered	79	0	1.380	0.517	0.422	66.42	1.07	1.86	0.024
LDNO EHV: NHH UMS category A	183	8	0.386						
LDNO EHV: NHH UMS category B	184	1	0.447						
LDNO EHV: NHH UMS category C	185	1	0.653						
LDNO EHV: NHH UMS category D	186	1	0.346						
LDNO EHV: LV UMS (Pseudo HH Metered)	81	0	3.641	0.359	0.213				
LDNO EHV: LV Generation NHH or Aggregate HH	82	8	(0.235)						
LDNO EHV: LV Sub Generation NHH	83	8	(0.255)						
LDNO EHV: LV Generation Intermittent	84	0	(0.235)						0.037
LDNO EHV: LV Generation Non-Intermittent	85	0	(1.577)	(0.199)	(0.013)				0.037
LDNO EHV: LV Sub Generation Intermittent	86	0	(0.255)	(0.100)					0.044
LDNO EHV: LV Sub Generation Intermittent				(0.215)	(0.015)				
	87	0	(1.720)	(0.215)	(0.015)				0.044
LDNO EHV: HV Generation Intermittent	88	0	(0.288)			69.69			0.063
LDNO EHV: HV Generation Non-Intermittent	89	0	(1.969)	(0.227)	(0.019)	69.69			0.063
LDNO 132kV/EHV: Domestic Unrestricted	90	1	0.308			0.85			
LDNO 132kV/EHV: Domestic Two Rate	91	2	0.351	0.144		0.85			
LDNO 132kV/EHV: Domestic Off Peak (related MPAN)	92	2	0.160						
LDNO 132kV/EHV: Small Non Domestic Unrestricted	93	3	0.324			0.90			
LDNO 132kV/EHV: Small Non Domestic Two Rate	94	4	0.353	0.149		0.90			
LDNO 132kV/EHV: Small Non Domestic Off Peak (related MPAN)	95	4	0.173						
LDNO 132kV/EHV: LV Medium Non-Domestic	96	5-8	0.308	0.143		4.66			
						7.33			
LDNO 132kV/EHV: LV Sub Medium Non-Domestic	0	5-8	0.561	0.248		7.55			
LDNO 132kV/EHV: LV Sub Medium Non-Domestic LDNO 132kV/EHV: HV Medium Non-Domestic	0	5-8 5-8	0.561 0.428	0.248		83.67			
					0.142				

Tariif name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge(HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO 132kV/EHV: LV HH Metered	97	0	0.668	0.200	0.139	2.28	0.26	0.58	0.018
LDNO 132kV/EHV: LV Sub HH Metered	98	0	0.917	0.305	0.231	3.81	0.59	0.94	0.019
LDNO 132kV/EHV: HV HH Metered	99	0	0.914	0.342	0.280	44.00	0.71	1.23	0.016
LDNO 132kV/EHV: NHH UMS category A	187	8	0.256						
LDNO 132kV/EHV: NHH UMS category B	188	1	0.296						
LDNO 132kV/EHV: NHH UMS category C	189	1	0.433						
LDNO 132kV/EHV: NHH UMS category D	190	1	0.229						
LDNO 132kV/EHV: LV UMS (Pseudo HH Metered)	101	0	2.412	0.238	0.141				
, , , , , , , , , , , , , , , , , , ,				0.200	0.141				
LDNO 132kV/EHV: LV Generation NHH or Aggregate HH	102	8	(0.155)						
LDNO 132kV/EHV: LV Sub Generation NHH	103	8	(0.169)						
LDNO 132kV/EHV: LV Generation Intermittent	104	0	(0.155)						0.025
LDNO 132kV/EHV: LV Generation Non-Intermittent	105	0	(1.044)	(0.132)	(0.009)				0.025
LDNO 132kV/EHV: LV Sub Generation Intermittent	106	0	(0.169)						0.029
LDNO 132kV/EHV: LV Sub Generation Non-Intermittent	107	0	(1.139)	(0.142)	(0.010)				0.029
LDNO 132kV/EHV: HV Generation Intermittent	108	0	(0.191)			46.16			0.041
LDNO 132kV/EHV: HV Generation Non-Intermittent	109	0	(1.305)	(0.150)	(0.013)	46.16			0.041
LDNO 132kV: Domestic Unrestricted	110	1	0.157			0.43			
LDNO 132kV: Domestic Two Rate	111	2	0.178	0.073		0.43			
LDNO 132kV: Domestic Off Peak (related MPAN)	112	2	0.081						
LDNO 132kV: Small Non Domestic Unrestricted	113	3	0.165			0.46			
LDNO 132kV: Small Non Domestic Two Rate	114	4	0.179	0.076		0.46			
LDNO 132kV: Small Non Domestic Off Peak (related MPAN)	115	4	0.088						
LDNO 132kV: LV Medium Non-Domestic	116	5-8	0.157	0.073		2.37			
LDNO 132kV: LV medium Non-Domestic	0	5-8	0.285	0.126		3.73			
	0		0.218	0.144		42.51			
LDNO 132kV: HV Medium Non-Domestic		5-8			0.070				
LDNO 132kV: LV Network Domestic	215	0	0.518	0.125	0.072	0.43			
LDNO 132kV: LV Network Non-Domestic Non-CT	216	0	0.575	0.132	0.073	0.46			
LDNO 132kV: LV HH Metered	117	0	0.339	0.102	0.071	1.16	0.13	0.30	0.009
LDNO 132kV: LV Sub HH Metered	118	0	0.466	0.155	0.117	1.93	0.30	0.48	0.009
LDNO 132kV: HV HH Metered	119	0	0.464	0.174	0.142	22.36	0.36	0.62	0.008
LDNO 132kV: NHH UMS category A	191	8	0.130						
LDNO 132kV: NHH UMS category B	192	1	0.150						
LDNO 132kV: NHH UMS category C	193	1	0.220						
LDNO 132kV: NHH UMS category D	194	1	0.116						
LDNO 132kV: LV UMS (Pseudo HH Metered)	121	0	1.225	0.121	0.072				
LDNO 132kV: LV Generation NHH or Aggregate HH	122	8	(0.079)						
LDNO 132kV: LV Sub Generation NHH	123	8	(0.086)						
LDNO 132kV: LV Generation Intermittent	124	0	(0.079)						0.013
LDNO 132kV: LV Generation Non-Intermittent	125	0	(0.531)	(0.067)	(0.005)				0.013
LDNO 132kV: LV Sub Generation Intermittent	126	0	(0.086)						0.015
LDNO 132kV: LV Sub Generation Non-Intermittent	127	0	(0.579)	(0.072)	(0.005)				0.015
LDN0 132kV: EV Gab Scheration Non-Intermittent	128	0	(0.097)	(		23.46			0.021
LDNO 132kV: HV Generation Intermittent	128		(0.663)	(0.076)	(0.007)	23.46			0.021
		0		(0.076)	(0.007)				0.021
LDNO 0000: Domestic Unrestricted	130	1	0.049	0.000		0.14			
LDNO 0000: Domestic Two Rate	131	2	0.056	0.023		0.14			
LDNO 0000: Domestic Off Peak (related MPAN)	132	2	0.026						
LDNO 0000: Small Non Domestic Unrestricted	133	3	0.052			0.14			
LDNO 0000: Small Non Domestic Two Rate	134	4	0.056	0.024		0.14			
LDNO 0000: Small Non Domestic Off Peak (related MPAN)	135	4	0.028						
LDNO 0000: LV Medium Non-Domestic	136	5-8	0.049	0.023		0.74			
LDNO 0000: LV Sub Medium Non-Domestic	0	5-8	0.090	0.040		1.17			
LDNO 0000: HV Medium Non-Domestic	0	5-8	0.068	0.045		13.34			
LDNO 0000: LV Network Domestic	217	0	0.163	0.039	0.023	0.14			
LDNO 0000: LV Network Non-Domestic Non-CT	218	0	0.180	0.041	0.023	0.14			
LDNO 0000: LV HH Metered	137	0	0.107	0.032	0.022	0.36	0.04	0.09	0.003
LDNO 0000: LV Sub HH Metered	138	0	0.146	0.049	0.037	0.61	0.09	0.15	0.003
LDNO 0000: HV HH Metered	139	0	0.146	0.055	0.045	7.02	0.11	0.20	0.003
		8	0.041	0.000				0.20	0.000
LDNO 0000: NHH UMS category A	195								
LDNO 0000: NHH UMS category B	196	1	0.047						
LDNO 0000: NHH UMS category C	197	1	0.069						

Tariff name	Unique billing identifier	PCs	Unit charge 1 (NHH) or red/black charge (HH) p/kWh	Unit charge 2 (NHH) or amber/yellow charge (HH) p/kWh	Green charge(HH) p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Exceeded capacity charge p/kVA/day	Reactive power charge p/kVArh
LDNO 0000: NHH UMS category D	198	1	0.037						
LDNO 0000: LV UMS (Pseudo HH Metered)	141	0	0.385	0.038	0.022				
LDNO 0000: LV Generation NHH or Aggregate HH	142	8	(0.025)						
LDNO 0000: LV Sub Generation NHH	143	8	(0.027)						
LDNO 0000: LV Generation Intermittent	144	0	(0.025)						0.004
LDNO 0000: LV Generation Non-Intermittent	145	0	(0.167)	(0.021)	(0.001)				0.004
LDNO 0000: LV Sub Generation Intermittent	146	0	(0.027)						0.005
LDNO 0000: LV Sub Generation Non-Intermittent	147	0	(0.182)	(0.023)	(0.002)				0.005
LDNO 0000: HV Generation Intermittent	148	0	(0.030)			7.36			0.007
LDNO 0000: HV Generation Non-Intermittent	149	0	(0.208)	(0.024)	(0.002)	7.36			0.007

#### Annex 5 - Schedule of Line Loss Factors

Northern Powergrid (Northeast) Ltd - Illustrative LLFs for year beginning 1 April 2020							
Time periods	Period 1	Period 2	Period 3	Period 4			
Monday – Friday (Apr- Oct)			00:30 – 07:30	00:00 - 00:30 07:30 - 24:00			
Monday – Friday (Nov)		07:30 – 20:00	00:30 – 07:30	00:00 - 00:30 20:00 - 24:00			
Monday – Friday (Dec – Feb)	16:30 – 18:30	07:30 – 16:30 18:30 – 20:00	00:30 – 07:30	00:00 - 00:30 20:00 - 24:00			
Monday – Friday (Mar)			00:30 – 07:30	00:00 - 00:30 07:30 - 24:00			
Saturday and Sunday All Year			00:30 – 07:30	00:00 - 00:30 07:30 - 24:00			
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	1.081	1.074	1.064	1.067	1, 12, 2, 203, 204, 205, 249, 251, 257, 278, 392, 394, 506, 507, 508, 509, 554, 555, 774, 792, 794, 998, 999				
Low Voltage Substation	1.040	1.039	1.042	1.039	265, 293, 393, 395, 776, 793, 795				
High Voltage Network	1.025	1.023	1.019	1.021	301, 304, 396, 398, 796, 798				
High Voltage Substation	1.016	1.015	1.014	1.014	691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 777, 778, 779, 780, 781				
Greater than 22kV connected - generation	1.010	1.010	1.008	1.008	810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824,825				
Greater than 22kV connected - demand	1.010	1.010	1.008	1.008	568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579				

	EHV site specific LLFs							
		Der	nand					
Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC			
Site 1	1.014	1.009	1.007	1.007	601			
Site 2	1.002	1.002	1.002	1.002	603			
Site 3	1.004	1.005	1.004	1.004	604			
Site 4	1.013	1.013	1.018	1.013	605			
Site 5	1.023	1.023	1.051	1.022	606			
Site 6	1.023	1.022	1.045	1.022	607			
Site 7	1.034	1.044	1.152	1.049	608			
Site 8	1.005	1.005	1.006	1.006	609			
Site 9	1.012	1.011	1.011	1.012	611			
Site 10	1.000	1.006	1.004	1.005	612			
Site 11	1.006	1.005	1.006	1.006	614			
Site 12	1.005	1.005	1.004	1.005	615			
Site 13	1.005	1.005	1.005	1.005	616			
Site 14	1.007	1.007	1.007	1.007	617			
Site 15	1.013	1.013	1.012	1.012	618			
Site 16	1.014	1.013	1.011	1.012	619			
Site 17	1.000	1.000	1.000	1.000	620			
Site 18	1.018	1.018	1.036	1.025	621			
Site 19	1.019	1.017	1.019	1.017	622			
Site 20	1.007	1.006	1.006	1.006	624			
Site 21	1.017	1.016	1.015	1.015	625			
Site 22	1.015	1.009	1.007	1.007	627			
Site 23	1.038	1.026	1.024	1.026	626			

#### Annex 5 - Schedule of Line Loss Factors

Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC
Site 24	1.017	1.016	1.012	1.014	628
Site 25	1.008	1.008	1.008	1.008	631
Site 26	1.005	1.005	1.005	1.005	632
Site 27	1.015	1.015	1.016	1.015	633
Site 28	1.012	1.012	1.011	1.010	637
Site 29	1.113	1.096	1.095	1.097	680
Site 30	1.056	1.047	1.039	1.046	681
Site 31	1.015	1.009	1.006	1.006	544
Site 32	1.004	1.004	1.004	1.004	682
Site 33	1.000	1.015	1.014	1.014	683
Site 34	1.006	1.006	1.005	1.005	684
Site 35	1.008	1.008	1.011	1.011	685
Site 36	1.001	1.003	1.007	1.010	686
Site 37	1.016	1.015	1.014	1.014	687
Site 38	1.083	1.079	1.063	1.068	688
Site 39	1.160	1.159	1.159	1.155	689
Site 40	1.076	1.086	1.100	1.095	690
Site 41	1.019	1.023	1.029	1.021	540
Site 42	1.000	1.000	1.004	1.004	541
Site 43	1.002	1.003	1.003	1.003	542
Site 44	1.030	1.026	1.023	1.023	543
Site 45	1.024	1.023	1.130	1.054	545
Site 46	1.025	1.023	1.016	1.019	547
Site 47	1.045	1.040	1.032	1.039	548
Site 48	1.042	1.033	1.074	1.071	549
Site 49	1.000	1.000	1.000	1.000	560
Site 50	1.010	1.010	1.008	1.008	561
Site 51	1.053	1.048	1.043	1.043	563
Site 52	1.145	1.129	1.110	1.109	562
Site 53	1.001	1.001	1.001	1.001	564
Site 54	1.000	1.020	1.014	1.016	565
Site 55	1.036	1.033	1.031	1.033	567
Site 56	1.003	1.002	1.002	1.002	566

EHV site specific LLFs								
Generation								
Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC			
Site 1	1.014	1.007	1.003	1.003	701			
Site 2	0.997	0.996	0.996	0.997	727			
Site 3	1.005	1.005	1.003	1.004	704			
Site 4	0.996	0.997	0.996	0.996	709			
Site 5	1.020	1.019	1.014	1.014	710			
Site 6	0.989	0.990	0.981	0.987	711			
Site 7	1.010	1.010	1.008	1.008	804			
Site 8	1.011	1.010	1.003	1.006	748			
Site 9	1.013	1.006	1.001	1.001	729			
Site 10	1.010	1.010	1.008	1.008	728			
Site 11	1.002	1.001	0.999	1.001	759			
Site 12	0.999	0.998	0.994	0.995	760			
Site 13	1.015	1.008	1.004	1.004	761			
Site 14	1.005	1.005	1.003	1.005	762			
Site 15	0.982	0.981	0.982	0.984	763			
Site 16	1.002	1.000	0.998	0.999	764			
Site 17	0.998	0.997	0.998	0.998	765			
Site 18	0.998	0.998	0.998	0.998	766			

#### Annex 5 - Schedule of Line Loss Factors

Site	Period 1	Period 2	Period 3	Period 4	Associated LLFC
Site 19	1.041	1.040	1.036	1.038	767
Site 20	1.038	1.037	1.033	1.035	768
Site 21	0.997	0.997	0.993	0.995	782
Site 22	0.999	0.999	1.000	0.998	783
Site 23	1.005	1.005	1.003	1.005	784
Site 24	1.000	1.000	1.000	1.000	785
Site 25	1.002	0.999	0.994	0.996	787
Site 26	1.002	0.998	0.994	0.996	788
Site 27	0.992	0.993	0.991	0.991	789
Site 28	1.000	1.000	1.000	1.000	806
Site 29	1.010	1.010	1.008	1.008	807
Site 30	1.017	1.012	1.008	1.005	802
Site 31	1.019	1.012	1.009	1.005	769
Site 32	0.999	0.999	0.999	0.999	803
Site 33	1.006	1.003	0.991	0.995	805
Site 34	1.008	1.006	1.000	1.003	809
Site 35	0.999	0.999	0.999	0.999	808

## Annex 6 - Charges for New or Amended Designated EHV Properties

Nodal costs can be found in the spreadsheet that accompanies this statement.