



Statement of Use of System Charging Methodology for Energy Assets Networks Limited

Effective from: 14 September 2021

Version Control

Version	Date	Notes
1.0	09 May 2019	Initial document
1.2	15 March 2021	Amended document

About this Statement

Energy Assets Networks Limited (EAN) is authorised by an electricity distribution licence (“the Licence”) granted pursuant to Section 6(1)(c) of the Electricity Act 1989 “the Act” to distribute electricity across Great Britain.

This statement is produced in accordance with Standard Condition 13 of EAN’s Licence and describes the methodology that EAN uses to set charges for customers connected to its electricity distribution system. Unless stated otherwise, words and expressions in this statement shall have the meaning given to them in the Act and the Licence.

This statement has been approved by the Gas and Electricity Markets Authority (“the Authority”).

If you have any questions about the application of this statement please contact:

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Licence Condition Objectives

Standard Condition 13 of the Licence requires that EAN:

“...prepare a statement of a use of system charging methodology, approved by the Authority, that achieves the relevant objectives”;

“comply with the use of system charging methodology”;

“review the use of system charging methodology at least once in every year”; and,

“make such modifications (if any) of the use of system charging methodology as are necessary for the purpose of better achieving the relevant objectives”.

Standard Condition 13 sets out the relevant objectives as being:

(a) that compliance with the use of system charging methodology facilitates the discharge by the licensee of the obligations imposed on it under the Act and by this licence;

(b) that compliance with the use of system charging methodology facilitates competition in the generation and supply of electricity, and does not restrict, distort, or prevent competition in the transmission or distribution of electricity;

(c) that compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable (taking account of implementation costs), the costs incurred by the licensee in its distribution business; and

(d) that, so far as is consistent with sub-paragraphs (a), (b) and (c), the use of system charging methodology, as far as is reasonably practicable, properly takes account of developments in the licensee’s distribution business.

Changes to this statement

Before making any modifications to this statement EAN must submit a proposal to the Authority setting out the details of the proposed modification and how implementing the modification enables the methodology to better achieve the relevant objectives.

Price Control

EAN is subject to a relative price control mechanism as described in amended standard condition BA2 of the Licence. This requires that EAN produces charges for use of system “so that, except with the prior written consent of the Authority, the standing charge, unit rate and any other component of charges shall not exceed the distribution use of system charges to equivalent domestic customers.”

Basis of Charging Methodology for Use of System Charges

- 1.1 This section contains the methodology used by EAN to determine the Distribution Use of System (DUoS) tariffs for sites connected to EAN's network.
- 1.2 The methodology differentiates between sites connected at Low Voltage (LV) or High Voltage and those connected at Extra High Voltage (EHV).

Definition of LV, HV and EHV Properties

- 1.3 LV and HV sites are defined as follows:
 - premises connected to the licensee's Distribution System at less than 22 excluding those premises connected directly to substation assets that form part of the licensee's Distribution System at 1 kilovolt or more and less than 22 kilovolts where the primary voltage of the substation is 22 kilovolts or more and where the Metering Point is located at the same substation.
- 1.4 EHV sites are defined as any sites that do not meet the criteria set out above for LV and HV sites.

Methodology to determine DUoS tariffs for Import to LV and HV sites

- 1.5 For an import Customer supplied through our network at LV or HV then our applicable use of system tariff is identical to the published use of system tariff that would apply to an equivalent Customer supplied by the Electricity Distributor in the host DNO area.

Methodology to determine DUoS tariffs for Export to LV and HV sites

- 1.6 For an export Customer connected to our network at LV or HV the following DUoS credits and/or charges will apply to the export MPAN:
 - Unit based credit (p/kWh): EAN will pay a unit-based credit for export from LV or HV properties at the same level as that paid by the Host DNO to EAN which will depend on the voltage of the boundary of connection between EAN and the Host DNO.
 - Fixed Charge (p/day): The fixed charge is identical to the fixed charge element of the published export use of system tariff that would apply to an equivalent Customer supplied by the Electricity Distributor in the host DNO area.
 - Capacity charge (p/kVA/day): A capacity charge will apply to the Maximum Export Capacity (MEC) in respect of the export MPAN. Where an export site does not have a MEC, the export capacity charge will not apply. Our methodology to calculate the export capacity charge is based on the costs of operating an illustrative generation-led network based on the kind of networks we are developing to connect generators. We estimate the annual cost associated with the illustrative generation-led network by aggregating:
 - The cost of routine inspections, maintenance and transformer oil testing;
 - The expectation value of the cost of component repair and replacement, based on our experience of failure rates and typical repair/replacement costs.

The expected costs of scheduled or end-of-life equipment replacement are not included in this analysis. We then estimate the export capacity likely to be serviced by the illustrative generation-led network. In doing so, we take account of the possibility of spare capacity arising from the commissioning of network capacity ahead of the completion of the construction of some generators served by the

network, and/or the risk of early closure of some generators. Dividing the annual cost associated with the illustrative generation-led network by the export capacity likely to be serviced by the illustrative generation-led network gives us a p/kVA/year charging rate. Our export capacity charge is calculated by converting the £/kVA/year determined above to p/kVA/day, by dividing it by 3.6525 and rounding to two decimal places.

- Excess Capacity Charge (p/kVA/day): The excess capacity charge is set at the same rate as the export capacity charge.
- Reactive Charge (p/kVArh): The reactive charge is identical to the reactive charge element of the published export use of system tariff that would apply to an equivalent Customer supplied by the Electricity Distributor in the host DNO area.

Methodology to determine DUoS tariffs for Import to EHV sites

- 1.7 For an import Customer supplied at EHV our applicable use of system tariff will be determined on a site-specific basis.
- 1.8 To determine this site-specific use of system import tariff, we will examine practical ways of extending the methodologies and models used by the Electricity Distributor in the host DNO area to suit the particular circumstances. Wherever appropriate, we will do so by using an extension of the published CDCM model of the Electricity Distributor in the host DNO area to apply to the circumstances of our Customer.
- 1.9 The site-specific import tariff will be based on the most similar tariff that exists in the published CDCM model, which we call the base CDCM tariff. We will adjust the calculation rules and the input data so as to reflect differences in relevant costs between our Customer and the customers covered by the base CDCM tariff, so as to ensure that we follow the principle that charges should reflect costs, whilst maintaining consistency with the methods used to derive other CDCM tariffs. Our extension to the CDCM will include the following adjustments where applicable:
 - we will adjust the network use factors in the tariff calculation rules to ensure that the tariff only includes costs associated with the network levels that are used (on our network or on the host DNO's network) by the supply to our Customer;
 - we will adjust the standing charge factors to ensure that the allocation of costs associated with each network level between unit rates and standing charges is consistent with the network level of supply for our Customer;
 - we will adjust the loss adjustment factors to ensure consistency with the network level of supply for our Customer;
 - we will review and if necessary adjust the customer contribution factors to ensure that the discount given in use of system charges in respect of costs covered by connection charges is consistent with the level of capital contributions made by the Customer towards the Distribution System.
- 1.10 As part of the tariff development process, we will validate the appropriateness of the resulting tariff by reference to all applicable Relevant Objectives set out in Standard Condition 13 of the Electricity Distribution Licence. We will specifically verify:
 - that the tariff is consistent with our wider licence obligations, in particular the prohibition on undue discrimination. We will do so by checking that the site-specific tariff fits appropriately in the hierarchy of tariffs: for example, if the supply to our Customer uses fewer network levels than the supply covered by an existing CDCM

tariff then, absent any other significant differences, the site-specific tariff should be lower than that CDCM tariff;

- that the tariff provides an adequate gross margin over the use of system charges levied on our business by the host DNO, so as to prevent a risk of a margin squeeze that could otherwise restrict, distort, or prevent competition in the distribution of electricity.

Methodology to determine DUoS tariffs for Export to EHV sites

1.11 For an export Customer connected to our network at EHV the following credits/ charges will apply to the export MPAN:

- EAN/ host DNO boundary charge: Any charges or credits levied at the boundary by the host DNO in respect of the export MPAN of the site will be passed through to the export customer.
- Fixed Charge (p/day): EAN will apply an Operation and Maintenance (OM) charge based on the modern equivalent asset value of the relevant sole use assets associated with the export MPAN. The charging rate used to calculate the OM charge would be the charging rate for direct costs, network rates and 60% of indirect costs used by the host DNO under its CDCM charging methodology multiplied by 0.68 (the operating intensity). The modern equivalent asset value of the relevant sole use assets is the sum of the modern equivalent asset value of any of our assets which are for the sole use of the relevant connection pro-rated between the import and export MPAN based on the relative import and export capacity for the site.

Loss Adjustment Factors

1.12 Where EAN's network connects to the transmission system via the networks of other licensed distributors operating within the same GSP group, the loss adjustment factors for connections other than EHV will be replicated to those of the host DNO. EHV loss adjustment factors are calculated on a site-specific basis, except for the first full year of operation (based on the charging year of April to March) when the generic loss adjustment factors published by the host DNO will be applied. In calculating the EAN component of the EHV site specific loss adjustment factors EAN will adopt the methodology principles used by the host DNO for each distribution services area in which EAN operates.

Appendix 1 – Glossary

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

Term	Definition
BSC	The Balancing and Settlement Code, which contains the governance arrangements for electricity balancing and settlement in Great Britain.
CDCM	Common Distribution Charging Methodology
Customer	<p>A person to whom a User proposes to supply, or for the time being supplies, electricity through an exit point, or from whom, a User or any relevant exempt supplier, is entitled to recover charges, compensation or an account of profits in respect of electricity supplied through an exit point;</p> <p>Or</p> <p>A person from whom a User purchases, or proposes to purchase, electricity, at an entry point (who may from time to time be supplied with electricity as a Customer of that User (or another electricity supplier) through an exit point).</p>
Distribution Network Operator (DNO)	An electricity distributor that operates one of the 14 distribution services areas and in whose electricity distribution licence the requirements of Section B of the standard conditions of that licence have effect.
Distribution System	<p>The system consisting (wholly or mainly) of electric lines owned or operated by an authorised distributor that is used for the distribution of electricity from:</p> <ul style="list-style-type: none"> • Grid Supply Points or generation sets or other entry Points <p>to the points of delivery to:</p> <ul style="list-style-type: none"> • Customers or Users or any transmission licensee in its capacity as operator of that licensee’s transmission system or the Great Britain (GB) transmission system and includes any remote transmission assets (owned by a transmission licensee within England and Wales) <p>that are operated by that authorised distributor and any electrical plant, electricity meters, and metering equipment owned or operated by it in connection with the distribution of electricity but does not include any part of the GB transmission system.</p>
EDCM	Extra high voltage Distribution Charging Methodology
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.
Entry Point	A boundary point at which electricity is exported onto a Distribution System to a connected installation or to another Distribution System, not forming part of the total system (boundary point and total system having the meanings 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.
High Voltage (HV)	Nominal voltages of at least 1kV and less than 22kV.
kV	Kilovolt.
Low Voltage (LV)	Nominal voltages below 1kV.
MPAN	Meter Point Administration Number
Use of System Charges	Charges which are applicable to those parties which use the Distribution System.
User	Someone that has a use of system agreement with the DNO e.g. a supplier, generator or other DNO/ LDNO