

Who we are?

As the **Electricity System Operator (ESO)** we make sure that Great Britain has the essential energy it needs by ensuring supply meets demand every second of every day.

What are connection charges?

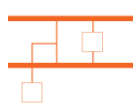
When a Transmission Owner (TO) connects your business to the National Electricity Transmission System (NETS), they incur costs which are recovered by the ESO through connection charges. These costs include the design and build of any connection assets, which vary from connection to connection but could include the procurement and installation of transformers, switchgear, metering, cables, and short sections of overhead lines and their associated civils works.

What are connection assets?

Connection assets (also known as transmission connection assets or sole use assets) are the assets used to connect you to the transmission system. These assets are exclusively for your connection.

Depending on where your ownership boundary is, you may have connection assets as part of your contract.

For example:



Double busbar type connections: are those assets connecting your assets and the first transmission licensee owned substation, up to and including the double busbar bay.



Mesh connections: are those single User assets from the User's assets up to, but not including, the HV disconnector or the equivalent point of isolation.



Cable and overhead lines at a Transmission Voltage: are those single User connection circuits connected at a Transmission Voltage equal to or less than 2km in length that are not potentially shareable

If you do have connection assets, they will be confirmed within your Bilateral Connection Agreement in Appendix A and B.

What are the codes?

The Connection and Use of System Code (CUSC) is the contractual framework for connecting to and using the NETS.

Website Link - CUSC

As the code administrator, we maintain the code and oversee any proposed changes to it. All changes must be reviewed by the modifications Panel and approved by the Panel, or by Ofgem.

How are connection charges calculated?

Connection assets are assigned a financial value known as their 'Gross Asset Value' (GAV). The GAV represents the costs incurred to build and install all the connection assets. It is split into three areas:

Type of cost	What this means for you
Engineering and construction costs	To procure and install the assets
Interest During Construction (IDC)	The TO finance the spend needed to build and install the connection assets prior to their use. However, this cost is waived if you choose to pay the capital component of your charge up front in alignment with their construction program.
Liquidated Damages Premium	This is an optional additional cost that you can choose which reduces your connection charge if the TO doesn't deliver your connection assets on the agreed completion date.

The GAV is then used to calculate your connection charge liability. The connection charge has two components:

1

Capital Component - this recovers the costs incurred to provide your connection.

- The cost of your connection assets' depreciation – typically over 40 years
- The TO's permitted Rate of Return for delivering your assets. This may vary depending on the TO.

2

Non-capital component – this is a contribution to the annual running costs and the maintenance of your connection. You will continue to pay the maintenance charges for as long as the asset is in situ.

- Site Specific Maintenance (SSM) is a % factor of the GAV. This is calculated annually, and is for the maintenance of your connection assets to keep them in good working order
- Transmission Running Cost Factor (TRC) is a % factor of the GAV. This is calculated at each price control period and is for the overhead costs supporting the TO's maintenance activities

*Each year we'll recalculate the charges, taking into consideration the inflation of the GAV, the age of your asset and the revised maintenance factors. We will reach out to you in December and share your charges for the fiscal year ahead. ***Commissioned customers only.**

How can I pay for my connection charges?

You can pay for the charges annually or you can pay a lump sum for the capital component of your connection charge.

Connection charges are calculated annually but are payable monthly. 1/12 of the annual charge will be invoiced every month with the invoices issued via email on the 1st of each month. Invoices have 15-day payment terms and late payments will result in additional late payment charges.

Further information on Capital Contributions

Capital Contributions can be made at different times:

- **pre-commissioning** – if payments are made alongside the TO's investment to build and install your connection assets. They will then waive the 'Interest During Construction' portion of the connection asset's GAV.
- **post commissioning** – either in full on completion, or partial capital contributions during the lifetime of your connection. The 'Interest During Construction' isn't waived in this scenario.

Pre commissioning capital contributions should be requested in your application for your connection agreement, these are subject to agreement from the TO.

The capital contribution will comprise of construction costs, inclusive of financing costs (subject to payments ahead of commissioning as mentioned previously), plus the TO's Rate of Return percentage for the Charging Year in which the Capital Contribution is made.

Security Requirements

This is required should you disconnect from the NETS during the period that the assets are chargeable to you. We require this bi-annually.

Customers generally provide security in one of the following forms:

- A Bank Guarantee
- A bond
- A Letter of Credit
- A Cash payment to be held in a National Grid ESO Escrow Account

Security is calculated based on the End of Year Net Asset Value (NAV). NAV is the mid-year depreciated GAV. Plus 6 or 12 months of connection charges, depending on when the statements are issued.

Example:

April to March

£1,000,000.00 (EOY NAV) + £100,000 (12 months connection charge) = £1,100,000 (Security Requirement).

October to March

£1,000,000.00 (EOY NAV) + £50,000 (6 months connection charge) = £1,050,000 (Security Requirement).

If you secure with a Letter of Credit by the 13th of February with the credit covering April to March, this will also cover the October to March statement. You will be informed of the amounts, but you are not required to do anything.

If you secure with a Cash payment by the 13th of February, for April to March you will receive a refund in August to the value of 6 months' connection charges. The payment of your connection charges reduces your security liability.

Termination Charges

If an asset is terminated before the end of its economic life, you will need to pay a termination charge. The charge will be the Net Asset Value (NAV), with allowance for any capital contributions made plus the reasonable costs of removing the assets if required.