

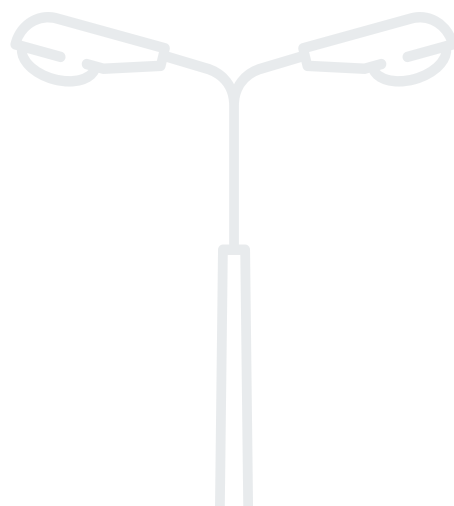
Guidance for street furniture electrical connections

www.ukpowernetworks.co.uk



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Overview

Our street furniture customer guide has been put together to assist you with preparing for your electrical connection.

We have included information which may help you make your application and gather the information you need as well as the steps you need to follow to get a new electricity connection.





You may find help in our G81 Document Library

We have made all of the necessary design documents which may help with your application available online for you to view or download. You can also subscribe and be notified of any changes or updates to any documents you use regularly.

Simply create an account on our G81 library:

<https://g81.ukpowernetworks.co.uk/>

Once you signed up you will be able to download and view our documents and set yourself up to receive notifications for when we update your regularly used documents.

You can find the documents you need by using our filters or by entering key search words. To make it easier for you, we have listed some of key documents for the relevant sections, which you may find helpful.

The screenshot shows the G81 Technical Library website. At the top left is the UK Power Networks logo with the tagline 'Delivering your electricity'. At the top right are 'Login/Register' and a search icon. The main heading is 'G81 Technical Library' with a sub-heading: 'Our G81 Technical Library contains information to help you with your works. Enter a search term, or select a category, to find the document you are looking for.' Below this is a search bar with a red search button and four filter dropdown menus labeled 'All Categories', 'All Categories', 'All Categories', and 'All formats'. Underneath the search bar is a 'Categories' section with eight dark blue buttons: 'Index', 'Alerts and Bulletins', 'Design and Planning', 'Materials', 'Installation', 'Testing and Commissioning', 'Operational', and 'Records'.

Do you require a Metered or Unmetered Connection?

Most items of street furniture, other than street lights and road signs, will require a metered connection.

Metered Connection

A metered supply uses a standard electricity meter provided by your electricity supplier (the company you pay your electricity bills to) to record the amount of electricity being used.

You will need to arrange for your electricity supplier to attend after we have made your electrical connection, as they'll need to install a new electricity meter. This doesn't have to happen on the same day, however, until your meter is installed you will not have power.

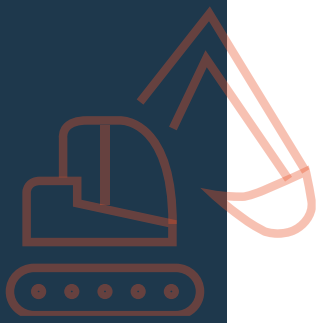
Unmetered Connection

You may only apply to us for an unmetered connection if your asset has very low consumption, is predictable in load and operation and has a National Charge Code issued by Elexon. You must already hold an Unmetered Supplies Agreement with us before we can install an unmetered connection. If any of these do not apply to you, or you are unsure, then please apply for a metered connection.

Further guidance on metered and unmetered supplies can be found in our G81 document library by searching for:

- EDS 08 2101 - LV Customer Supplies up to 100A single phase
- EDS 08 2100 - LV Customer Supplies
- EDS 08 2102 - LV Customer Unmetered Supplies





Are you arranging your own digging?

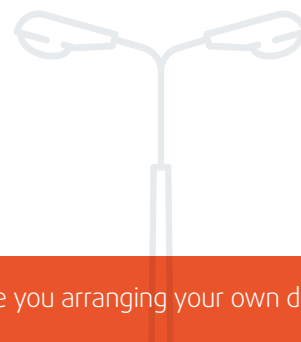
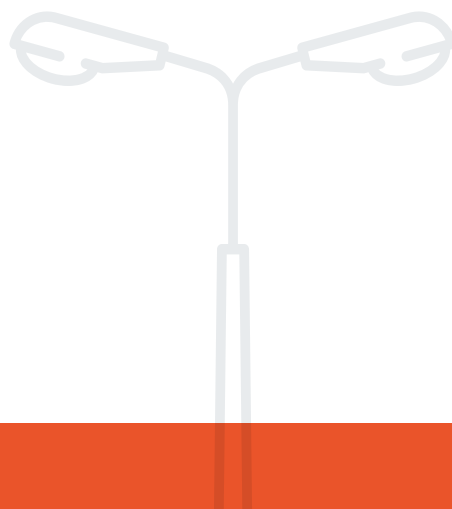
If you would like us to carry out the digging work then please choose the “Full Turnkey” delivery option and we will take care of the work from start right through to completion.

However, if you doing your own digging then please select the “Jointer Only” delivery option and you will then need to employ a suitable contractor to carry out all of the digging, backfilling and resurfacing.

This service allows you to carry out all of the contestable elements of the delivery task (including noticing, permitting, street works management, traffic management, site management, the digging and backfilling). This service will require a contract to be set-up between you and UK Power Networks.

We have produced a comprehensive Minimum Joint Bay and Excavation guide for customers who are completing their own digging and backfilling in the public highway for metered and unmetered Street Furniture connections.

This guide is designed to ensure that customers excavation activity is completed to a suitable standard to allow us to make a connection on our first visit. If you are happy to go ahead with the works and have paid for our Jointer only service, you can request a copy of this guidance from one of our Co-ordinators.



What will the price include, and will I receive any more costs from you once I've paid?

Our price is made up of all materials used to complete the job, time to plan the work and time of our qualified engineers to carry out the work.

We also need to include for charges from local authorities to allow for works to go ahead on their land, this may include permits, parking suspensions as well as traffic management costs to cover barriers and any footpath or carriageway closures required.

All costs will be included in the price that we send you.

If you have requested for our teams to complete digging, backfilling and resurfacing work, our quote will cover work on standard surface types, for example unmade ground, grass verge, tarmac, bitumen, slab/block and concrete/asphalt.

However, if we're not made aware of any non-standard surface types, such as York stone, Chinese granite, mastic or marble, then additional costs will be applied.

Whilst additional costs are not applied to the price often, additional costs may be applied if you change your mind on what works you would like us to carry out. Additional costs may also be applied in the limited circumstances set out in the Terms and Conditions which is included with all of our quotes.



What can affect the time and cost when installing a new electricity supply?

To connect your asset to our electricity network we will find the nearest suitable electricity cable. These cables are normally underground so to get to them we may need to dig a large hole. A trench then needs to be dug from this hole to your asset.

Digging on the public footpath

- The local authority charge to dig on the footpath and we need to apply for permits
- This work can take some time to arrange with the local authority. Timescales will vary and are outside of our control
- If digging is needed on the public footpath and road then traffic management (e.g. temporary traffic lights) may be required

Digging in the road

- The local authority charge to dig in the road and set up any traffic diversions
- This work can take some time to arrange with the local authority. Timescales will vary depending on the work requirements and are outside of our control.

Parking

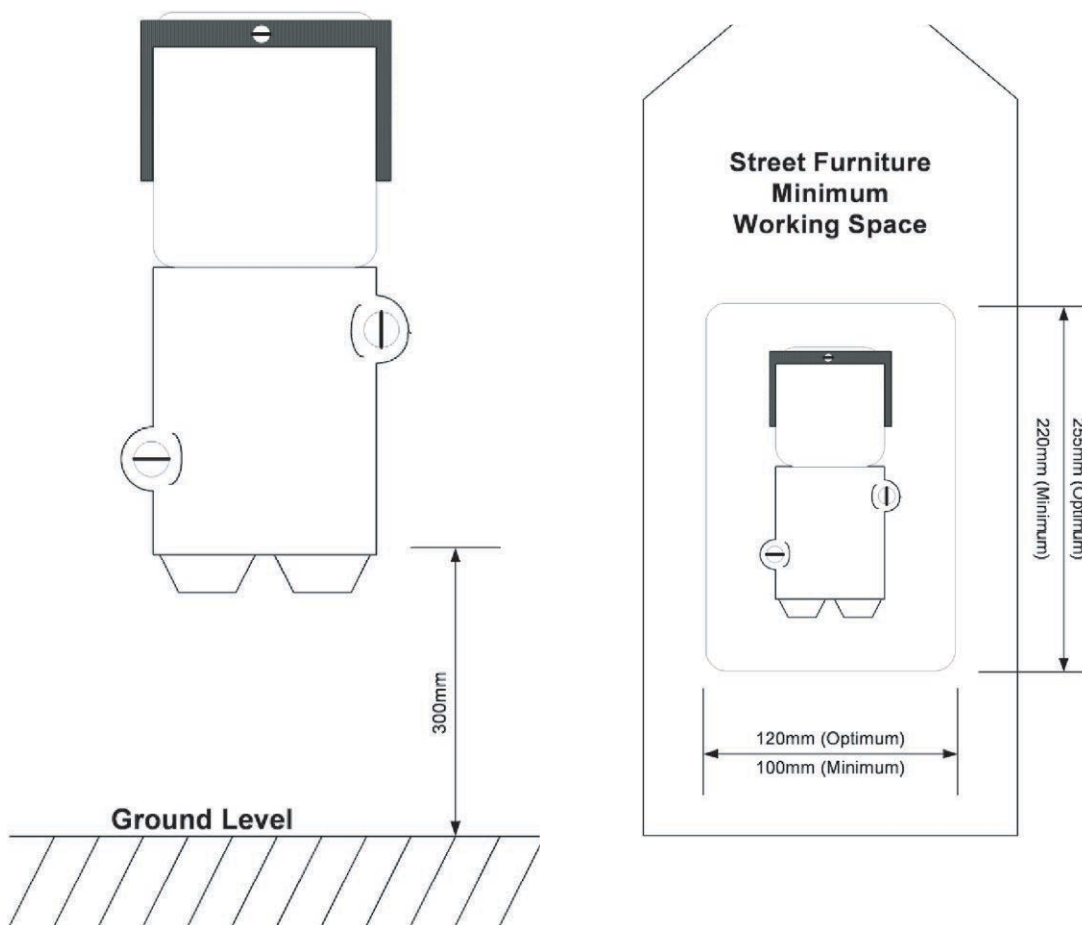
- We may need to apply to the local authority to suspend parking bays to ensure the area is clear for our vehicles and working area. The local authority charge for parking bay suspensions
- Where there are no parking bays to suspend we may need to apply to the local authority for a Temporary Traffic Regulation Order (TTRO). The local authority charge for this TTRO and this work takes time to arrange with the local authority.



Unmetered Cabinet Dimensions

See the diagrams below for specific dimensions in mm.

Appendix A - Layout Drawing of Minimum Mounting Height



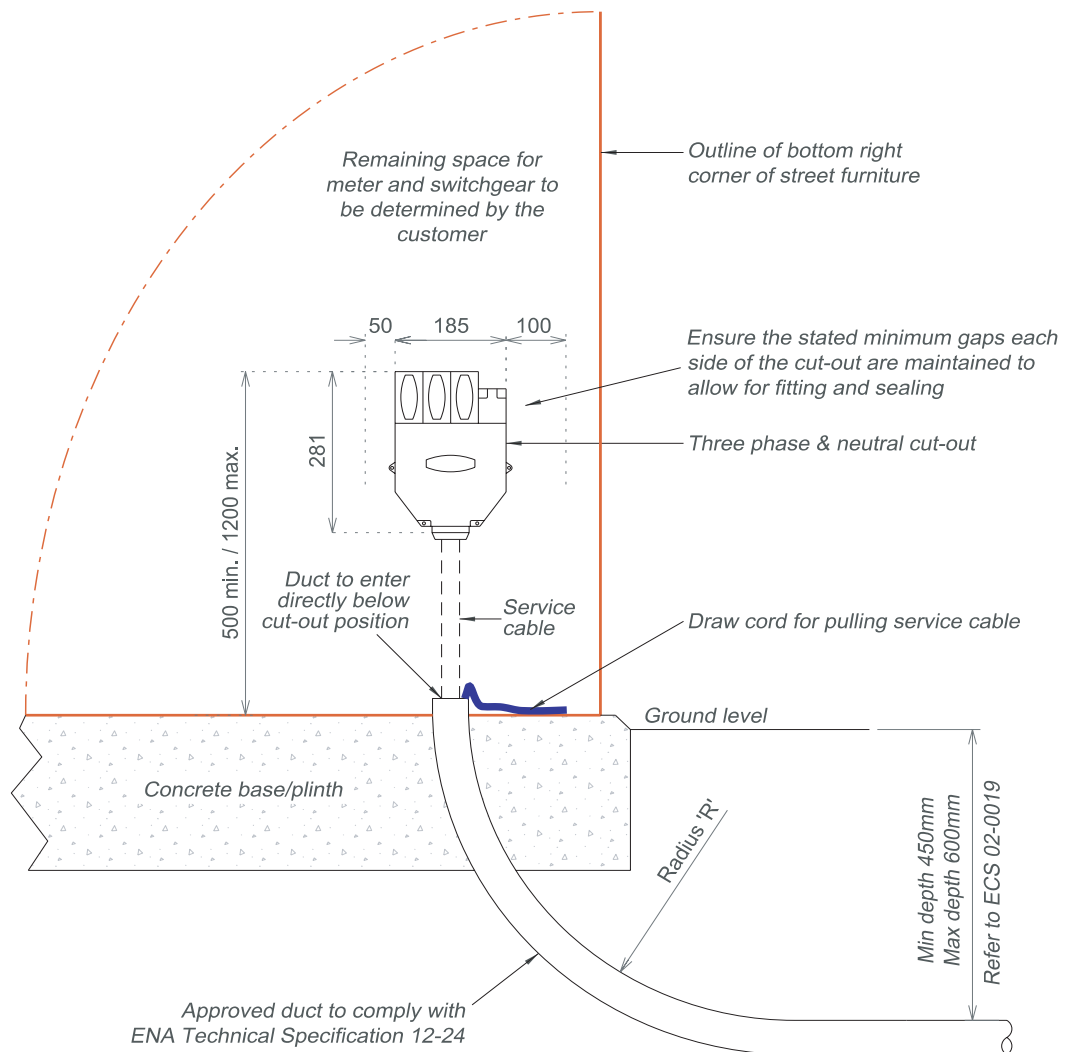
This drawing can be found in our G81 document library by searching:

- ECS 03 0019 - Access and Mounting Space for Street Furniture Cut-outs



Metered Cabinet Dimensions

We have created the diagram below which provides you with the required size, type, location and depth of the cable duct for our cable to be installed through. It also confirms the location and dimensions required for our metered electrical service cut-out.



NOTES:

1. For a single phase and neutral cut-out the 185mm width dimension is reduced to 100mm, but the stated minimum gaps each side of the cut-out are still required.
2. DNO earthing provision to be in accordance with EDS 06-0017.
3. Where there is a need to comply with the "Petroleum Consolidation Act 1928" the minimum height of the company's equipment will be increased to ensure that any possible source of ignition is a minimum of 1200 above floor level.

MINIMUM DIMENSIONS REQUIRED FOR UK Power Networks EQUIPMENT

Proposed Cut-out	Radius 'R'	Duct Size
100A single-phase services	250 min.	32
100A 3-phase services	250 min.	50

All dimensions in mm

This drawing can be found in our G81 document library by searching:

● EDS 08 2110.18

Is your connection for an Electric Vehicle Charging Point?

If you are looking to install Electric Vehicle Charging Points, you or your installer need to think about the type of charger you want to connect and whether you have enough power available. More information on installing Electric Vehicle Charging Points and the steps you need to follow can be found on our website at:

ukpowernetworks.co.uk/Evchargingpoint

You can also download our 'Connecting a Charge Point on the public highway' guide on our dedicated Electric Vehicle Charge point help and advice page at:

ukpowernetworks.co.uk/EVhelpandadvice



Further guidance can be found in our G81 document library by searching:

- **EDS 08 5050 - Electric Vehicle Connections**

The sections of the document with particular relevance to electrical connections to Electric Vehicle Charging Points on the public highway are sections 6.2, 6.3, 7.1, 7.2 & 7.3

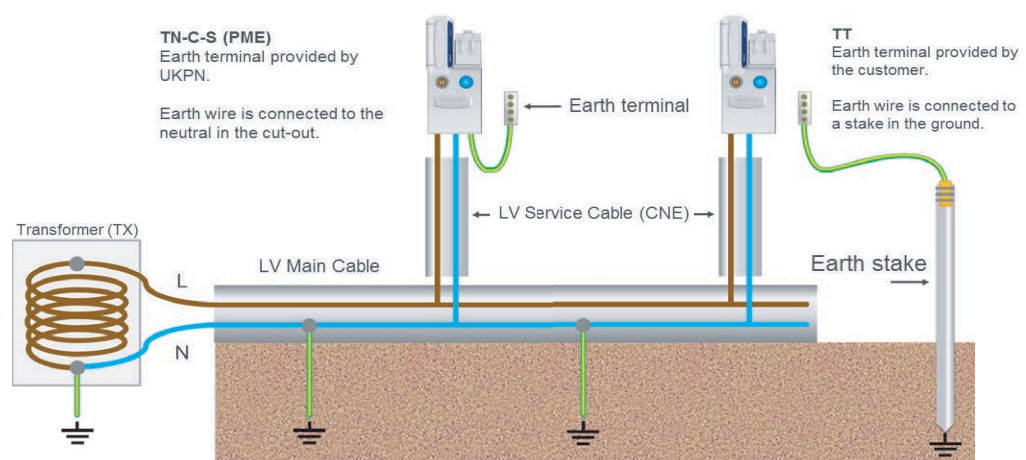


Earthing arrangements explained

All electricity connections require earthing to be installed which prevents shocks and creates a safe route for electrical current to travel. There are different types of earthing available.

We are able to provide most non-metallic cabinets with a Protective Multiple Earthing (PME) terminal. However, metallic cabinets cannot have an earth terminal unless your electrical contractor carries out some additional preparation work in advance.

For Terre Terre (TT) earthing you will need arrange for an electrical contractor to install an earth electrode system, which are typically buried earth rods and conductor. Where local earthing is used the installation normally has to be protected by a residual current device (RCD) in order to comply with BS 7671.



*The earth electrode system will typically be an earth stake or earth mat. In some cases use of a conductive concrete base may be utilised

Key
 < less than
 > more than
 = equal/same

Example 1
 This shows that two TT supplies can be within 2m of each other.

Example 2
 This shows that TT and PME cannot be within 2m of each other.

Existing Asset Earthing System	Separation	New Asset Earthing System	Acceptable
PME	< 2m	PME	✓
TT	>= 2m	PME	✓
PME	>= 2m	TT	✓
TT	<= 2m	TT	✓
PME	< 2m	TT	✗
TT	< 2m	PME	✗

Further guidance can be found in our G81 document library by searching:

- EDS 06 0017 - Customer LV Installation Earthing Design

The sections of this document with particular relevance to electrical connections to street furniture are; 5.17.2 (Assets up to 7kW); 5.18 (Assets above 7kW); 5.16 (Electric Vehicle Charging Points); 5.3.1 (Temporary Supplies, e.g. market stalls); 5.17.1 (Street Lighting)

Steps to getting connected

Completed by you

Completed by UK Power Networks

Your power requirements

You will need to begin by arranging for an electrical contractor or an electrician to find the amount of power you will need. This will help you when completing your application.

1

Application

Once you know your power requirements, complete our application form. You can apply online at:

<https://www.ukpowernetworks.co.uk/Forms/Highways/NewRequest>

or by downloading our application form from our website at:

[ukpowernetworks.co.uk/internet/en/our-services/public-highway/](https://www.ukpowernetworks.co.uk/internet/en/our-services/public-highway/)

2

3

Review your application

Once you've applied, we will review your application and you'll be allocated a personal Co-ordinator. They will:

- Be your point of contact throughout your project
- Plan and co-ordinate your work right through to completion

4

The Price

Your Co-ordinator will:

- Call you if we need any additional information from you
- Send you a quote and a breakdown of the costs once they have assessed the work involved





Completed by you

Completed by UK Power Networks

Payment

If you would like to go ahead with the works, your Co-ordinator will let you know how you can make payment.

5

6

Arranging your work dates

Once payment is received, your Co-ordinator will get in touch to arrange for the work to be carried out. Please note that there may be third party lead times to consider if any work is taking place on private land. This can include getting:

- Access permissions
- Wayleave and consents agreement
- Land rights access

We usually book in our work dates over five days to allow enough time for each of our teams to complete their work. This will also provide us with some time to rectify any unforeseen issues.

Completed by you

Completed by UK Power Networks

Things we need you to complete before we attend

- Complete all of your own preparations and electrical work before our teams visit to complete any works. If you are not ready then this may cause delays or cancellations which could incur additional costs
- If you are requesting a metered connection, you will need to arrange for your energy supplier to fit or move your electricity meter once we have installed our power cable. Your site will be without power until this is complete

7

8

Digging

We will send our team to out if you have requested for us to complete your digging work.

9

Getting the job done

Our engineers will complete all electrical works including extensive checks to make sure everything is safe before we leave.

10

Back fill and resurface

Where we completed digging, we'll fill the hole and resurface the land within the next three working days. If you've done the digging you'll need to do this yourself.



Did you know?

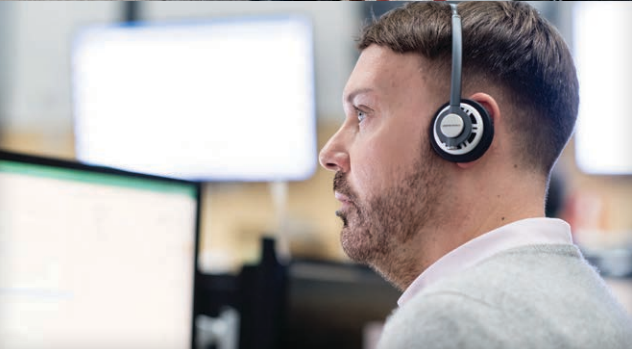


You can arrange the digging yourself on your land, this will need to be completed before we carry out our works. You will be responsible disposing of any material and restoring the original surface.

Approved contractors can carry out any digging on the path or road. You can also request for us to complete this for you.

We always aim for 10/10

You may be selected for an independent survey to rate the service you received and find out how we can do better. Our aim is to deliver a 10/10 service every time. If at any point we're not meeting this, please let us know and we'll do all we can to put things right.



Still have questions?

We appreciate that this is a complex process and that you may still require help or support with your application and preparing for your connection. Don't worry, we're here to help you. If you have any questions or need any additional support or information, please complete our short online form and our team will contact you to provide assistance with any queries you may have.

ukpowernetworks.co.uk/Forms/Highways/NewRequest

Alternatively you can contact us on the details below:

Visit our website



ukpowernetworks.co.uk



London Highway Services - Region 1

Tel: **0207 055 4343** (Mon to Fri, 8.30am -5pm)

Email: umc1.orders@ukpowernetworks.co.uk

South East Highway Services - Region 2

Tel: **01622 352 621** (Mon to Fri, 8.30am -5pm)

Email: umc2.orders@ukpowernetworks.co.uk

Eastern Highway Services - Region 3

Tel: **01279 824 761** (Mon to Fri, 8.30am -5pm)

Email: umc3.orders@ukpowernetworks.co.uk

Ready to apply?

If you know your power requirements and are ready to apply, you can apply online at:

ukpowernetworks.co.uk/Forms/Highways/NewRequest

or by downloading our application from at:

ukpowernetworks.co.uk/internet/en/our-services/public-highway/

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