



Getting electric vehicles moving

A guide to help you connect electric vehicle charge points on the public highway

Supporting the growth of electric vehicles

The use of electric vehicles is on the rise and they are fast becoming commonplace. Some of these vehicles will be charged on the highway. It is important that charging points are installed to the appropriate standards to ensure a safe and reliable power supply for those charging their vehicles and for all of us who navigate our public spaces.

UK Power Networks has produced and published its Engineering Design Standard for Electric Vehicle Connections, EDS 08 5050, which can be viewed [here](#).

This standard outlines the design requirements for the installation of electric vehicle charging point (EVCP) equipment to new connections and to existing supplies.

EDS 08 5050 establishes the requirements for EVCP installers, including:

- Assessment of the adequacy of the supply capacity for the new electric vehicle load plus any existing load, before installation of the charging equipment
- Assessment of the adequacy of earthing, before installation of the charging equipment
- Notification to the DNO of the installation once completed

This guide helps you understand:



What can be connected on the Public Highway



How electricity usage is recorded



How to get your electric vehicle charging point connected



Where to go for further information

What can be connected

New Connections (up to and including 7kW) of EVCP's in the public highway (fast chargers)

- These charging points must be metered
- The supply termination and electricity meter must be contained within a customer owned and maintained position
- All EVCP's in the public highway must be connected to a TT earthing system. A PME earth terminal shall not be used (the supply and installation of earthing system and protection is the responsibility of the EVCP installer) as set out in section 6.2 of EDS 08 5050
- Single EVCP's of 3kW or 7kW (per phase) must be connected to the low voltage distribution network as set out in sections 5.2 and 5.3 of EDS 08 5050

New Connections of EVCP's exceeding 7kW in the public highway

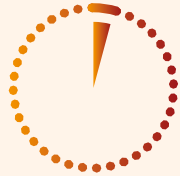
It is possible to connect EVCP's larger than 7kW on the public highway or in other locations, for example in car parks, but these will need to be assessed in accordance with appropriate design standards. Please refer to EDS 08 5050 section 4 and section 5.5 for further details.

2HRS



A fast charger can typically be installed without the need to do a network assessment

0.5HR



A rapid charger can top up an EV in as little as 30 minutes but requires significantly more power. We may need to reinforce our electricity network.

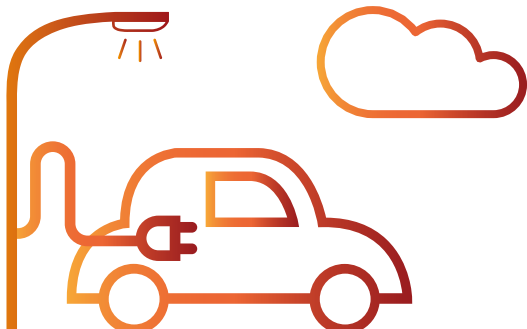


What can be connected

Retrofitting of an EVCP to an existing unmetered connection, i.e. a street lighting column

A single EVCP can be provided from an existing unmetered connection providing certain criteria are met, including but not limited to;

- EVCP's of this type will use a measured Central Management System (mCMS) to collect consumption data and as such must adhere to the Elexon certification process (prior agreement must be obtained from UK Power Networks Income Management team)
- EVCP's connected to unmetered supplies must be included on an unmetered supplies inventory to UK Power Networks on a monthly basis
- The total maximum power available for the connection of an EVCP to an existing unmetered connection ranges from 1.38kW to 5.75 kW (including the existing load of the connection). It is dependent on the size of the DNO supply fuse, which in turn is dependent upon the maximum earth fault loop impedance of the connection (please refer to Table 7.1 of EDS 08 2102 which can be viewed [here](#))
- All EVCP's in the public highway must be connected to a TT earthing system. Where the earthing arrangement of the existing unmetered connection is not TT, for example PME, then the existing unmetered supply must be converted accordingly (the supply and installation of earthing system and protection is the responsibility of the EVCP installer)
- Providing the criteria set out in EDS 08 5050 is fully met then a G39 approved electrical contractor may upgrade the supply fuse without UK Power Networks intervention
- If the requirements of EDS 08 5050 cannot be met then a new electrical service must be connected to the low voltage distribution network



Letting us know about your charger

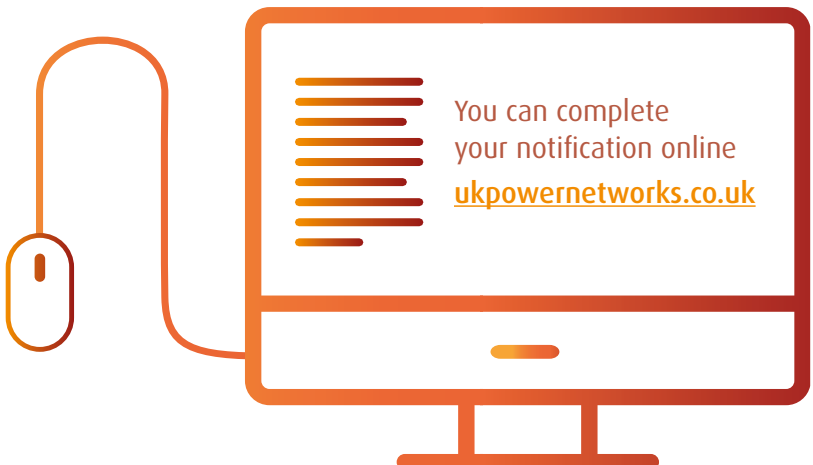


Notification following installation

Following the installation of EVCP equipment installers are required to notify UK Power Networks within 30 days of the date of the installation.

This applies to EVCP installations to both an existing supply and where an application has been made for a new point of connection.

Please refer to EDS 08 5050 section 6.1 for further details.



Applying for an EV connection on the Highway

To proceed with your connection through UK Power Networks

- Use the postcode checker [here](#) to check if you're in our area.
- Please refer to the map below for the relevant local office and contact details
- Our application form can be found [here](#)
- For any queries regarding street furniture on the public highway, please email highwayservices@ukpowernetworks.co.uk

Highway Assets contacts

UMC Fault repairs - East of England and South East

New Faults: 0203 660 2017
Email: umc2.faults@ukpowernetworks.co.uk
umc3.faults@ukpowernetworks.co.uk
umc4.faults@ukpowernetworks.co.uk

UMC Fault repairs - London

New Faults: 0207 055 4059
Email: umc1.faults@ukpowernetworks.co.uk

New works East of England (region 3)

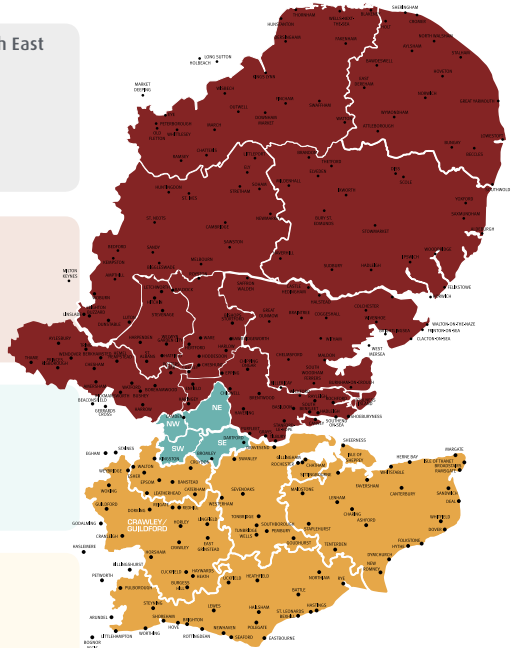
Telephone: 01279 824 761
Email: umc3.orders@ukpowernetworks.co.uk
Address: Highway Assets, UK Power Networks, Metropolitan House, Darkes Lane, Potters Bar, Hertfordshire, EN6 1AG

New works London (region 1)

Telephone: 02070 557 512
Email: umc1.orders@ukpowernetworks.co.uk
Address: Highway Assets, UK Power Networks, Centenary House, 161 Bidder Street, London E16 4ET

New works South East (region 2)

Telephone: 01622 352 621
Email: umc2.orders@ukpowernetworks.co.uk
Address: Highway Assets, UK Power Networks, Bircholt Road, Parkwood, Maidstone ME15 9XH

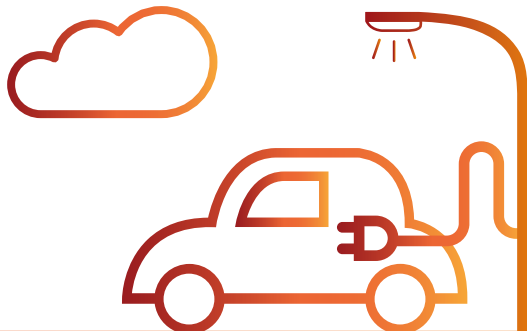


Did you know you have a choice about who can connect to our network?

Independent Connection Providers (ICPs) are able to provide most of the services provided by UK Power Networks, including:

- Unmetered new connections, service transfers and disconnections, underground and overhead
- Excavation and reinstatement on the public highway to facilitate the electrical connections activity
- Metered new connections and disconnections

If you require more information on ICPs and Competition in Connections, please [click here](#).





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