Keeping London moving

An electric vehicle charging guide for taxi and private hire drivers
Supporting the growth of electric vehicles

London transport is undergoing a significant change with the decision to phase out diesel cabs in favour of zero-emission capable taxis. Transport for London (TfL) has introduced new licence requirements that all new taxis (black cabs) will need to be zero-emission capable from 2018 and the same for all new private hire vehicles (minicabs) from 2023.

We want to support taxi and private hire drivers in their move to electric vehicles (EVs). The aim of this guide is to give you more information about the different kind of charging points available and answer some of the questions you may have about the move to zero-emission vehicles.

This guide lets you know:

- Why charge points matter so much to your electricity network
- What the different kind of charge points are and what they do
- How to go about getting a charge point at your home – and the grants that may be available
How UK Power Networks can help

Who are UK Power Networks?
UK Power Networks owns and maintains the electricity cables and lines that bring the electricity to more than eight million homes and businesses across London, the South East and East of England. We run and maintain the electricity cables in your area and keep the lights on, regardless of which electricity supplier you pay your bills to.

We don’t own, operate or install electric vehicle charging points, but we connect them to the electricity network.

Supporting the transition to a low carbon future
Electric Vehicles can help London meet its ambitious carbon emission and air quality targets. UK Power Networks want to support taxi and private hire drivers to keep you on the road if you choose to buy a zero-emission capable vehicle.

We distribute electricity to charge points and we provide new power supplies to connect them to the network

UK electric vehicle actuals
The number of electric vehicles has increased almost tenfold since 2010 and is predicted to continue to rise.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Electric Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>90,994</td>
</tr>
<tr>
<td>2018</td>
<td>135,000+</td>
</tr>
</tbody>
</table>
How long does it take to charge an electric vehicle?

There are three types of charge points: Slow, Fast and Rapid. The speed that cars can charge at is determined by how much electrical power (kW) the charge point delivers:

- **Slow** (up to 3kW) which can charge most EVs today in 8 to 10 hours
- **Fast** (7kW) which provide a full charge to most EVs in 2-5 hours
- **Rapid** (greater than 43kW) which are able to provide an 80% charge in around 30 minutes

Distances travelled after 15 minute charge:

<table>
<thead>
<tr>
<th>Speed</th>
<th>Distances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow</td>
<td>3-6 miles</td>
</tr>
<tr>
<td>Fast</td>
<td>6-20 miles</td>
</tr>
<tr>
<td>Rapid</td>
<td>35-40 miles</td>
</tr>
</tbody>
</table>

Home charging is the most convenient and cost-effective way of charging for most people.

Home charging speeds available are typically either Slow (3kW) or Fast (7kW). Faster, higher powered wall units normally cost more than the slower 3kW option, but roughly half the charging time is needed. Many plug-in car makers have deals or partnerships with charge point manufacturers, which in some cases can provide a free home charge point.

If you are buying a plug-in electric vehicle and have off-street parking at home, it is well worth considering getting a home charging unit installed for the convenience, safety and security it offers.

Always use a safe charging method installed by a reputable charge point provider.
1) Speak to the company supplying you the low emission vehicle.

2) They will give you information about charge points and the installers who can fit them. A list of approved chargepoint installers can be found here.

3) Check whether you are eligible for a grant. You can check here.
   https://www.gov.uk/government/collections/government-grants-for-low-emission-vehicles#electric-vehicle-homecharge-scheme

4) Decide if you need a fast or a rapid charger.

**Up to 7KW**
If you require a slow or fast (up to 7KW) charger, your charge point installer will assess your wiring and the equipment that connects to the electricity network. The charge point installer will fit the post and notify UK Power Networks. This may require a visit from one of our engineers but the installer will arrange this.

**Above 7KW**
Installing a fast (above 7KW) or rapid charger may require an upgrade to the electricity supply into your property. Your nominated charge point installer will need to apply to UK Power Networks who will assess your application, and if appropriate, provide a quotation. The upgrade should be completed, including any changes to your internal wiring, prior to installing the charge point.
FAQs

What should I do if I can’t install a charger at home because I don’t have access to off-street parking?

We know this is an issue, especially in London where 40% of homes do not have off-street parking. There is a rapidly growing network of public charge points, and a number of operators are exploring installing charge points in places like supermarkets, car parks petrol stations and residential streets. Local authorities are also installing public chargers after government grants were made available. Use a tool like ZapMap (https://www.zap-map.com/) to locate public charge points.

Can I get a grant for a charge point at my home?

Yes, depending on your circumstances. The Government’s Office for Low Emission Vehicles (OLEV) offers grants of up to 75% (capped at £500). Many charge point installers offer assistance on whether you are eligible and completing the application. To find out more visit. (https://www.gov.uk/government/collections/government-grants-for-low-emission-vehicles#electric-vehicle-homecharge-scheme)

Do I have to tell you if I install a home charge point?

Yes. Your installer should do this but it’s worth checking. We need to keep track of where charge points are installed so that we can monitor electricity use and forecast when and where we will need to reinforce the network. That means we can keep people’s bills as low as possible by doing the right amount of additional work on the network at the right time.
How will I be able to charge when I am out on the road?

TfL installed 75 rapid chargers last year, is building 150 by the end of 2018 and aims to have at least 300 by 2020, so we expect the number of public rapid charge points to continue to rise. But we anticipate that in future about 2/3 of all charging will be done at home, around 20% while people’s cars are parked up at work and just 10% of people will be charging en route.

What is Smart Charging?

In future, drivers might be offered incentives to charge their vehicle outside of peak times – so for example you might pay a lower price for your electricity if you agree to charge your car overnight instead of in the early evening. Smart charging is a more intelligent way of charging EVs to help keep people’s electricity bills low. But UK Power Networks is working to make sure that you’re able to charge your vehicle however you want, when and where you choose.

How can I find out more?

To find out more visit our website at www.ukpowernetworks.co.uk or email asktheexpert@ukpowernetworks.co.uk
Key contacts:

UK Power Networks electric vehicle charging
https://www.ukpowernetworks.co.uk/internet/en/our-services/electric-vehicle-charging/

TfL electric vehicles and rapid charging
https://tfl.gov.uk/modes/driving/electric-vehicles-and-rapid-charging

Office for Low Emission Vehicles (OLEV)
https://www.gov.uk/government/organisations/office-for-low-emission-vehicles

Energy Saving Trust guide to charge points for business users

Zap Map – map of UK charging points
https://www.zap-map.com/

Source London
https://www.sourcelondon.net/