

Electric Vehicle Charging Point Consultation 2019

Frequently Asked Questions

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1. General information about electric vehicles

a. What is an Ultra-Low Emission Vehicle?

Ultra-low emission vehicle (ULEV) is the term used to describe any vehicle that:

- uses low carbon technologies
- emits less than 75g of CO₂/km from the tailpipe
- can operate in zero tailpipe emission mode for a range of at least ten miles

b. What is an Electric Vehicle (EV)?

EV stands for electric vehicle. It essentially means that the vehicle includes a large battery and electric motors that are used for part or all of its operations. The different types of EVs are as follows:

- Battery Electric Vehicles (BEVs)
- Pure Electric Vehicles (PEVs)
- Hybrid Electric Vehicles (HEVs)
- Plug-in Hybrid Electric Vehicles (PHEVs)
- Extended-Range Electric Vehicles (EREVs)

2. Source London

a. What is Source London?

Source London is a London-wide electric vehicle charge point network which manages over 1,000 charge points in 23 London boroughs. Source London aims to install more electric vehicle charging points operating with 100% renewable energy, as part of the Source London network across all 33 London boroughs.

b. Why is Richmond Council working in partnership with Source London?

Source London provides a London-wide network of fast charging points. The company appointed to run the network made commitments to upgrade the previous charging points which were obsolete and to add to and maintain the network at their risk and cost, minimising the call on the public purse. Transport for London endorse Source London and many boroughs have therefore chosen to enter into agreement with Source London to supply, install and maintain on-street charge points in their areas. Source London charge points use 100% green electricity which has a substantial positive impact on carbon emissions generated from the production of electricity used to power the charge points.

c. How does Source London select charge point sites?

When searching for potential sites, the selection team use the following criteria:

- Source London member requests and locations
- Information provided by the Society of Motor Manufacturers and Traders (SMMT) (current/annual EV registrations)
- Resident requests for charge points compiled by the Council and powermystreet.co.uk
- Transport for London research (uptake data)
- Areas close to high streets and local amenities
- Away from live equipment e.g. lamp posts (at least 2m)
- Away from the front of residential homes
- Areas where there is a good pavement width to allow for charge points and pedestrians

d. How much does it cost to charge a car at a Source London charge point?

As an example, to charge a 40kw Nissan Leaf (from flat to full) will cost approximately £12 on a Source London charge point. For a charging session between 8pm and 7am an overnight cap is available (around £8.50).

3. Benefits of electric vehicles

a. Improved air quality

According to the Royal College of Physicians¹, the annual impacts of environmental pollution in the UK are:

- 29,000 deaths due to particulate pollution
- 23,500 deaths due to nitrous oxide
- 40,000 overall deaths per annum (some deaths attributable to both causes)

¹ Royal College of Physicians. Every breath we take: the lifelong impact of air pollution. Report of a working party. London: RCP, 2016

Reducing air pollution levels remains a significant challenge for London. According to research commissioned by the Greater London Authority², particulate air pollution contributed to an equivalent of 4,267 premature deaths in London in 2008. London generated 26 million tons of carbon dioxide and 30,000 tons of nitrous oxide in 2013³.

Transport has a significant impact on air quality in the city, with many areas experiencing levels of pollution above national target levels.

b. Climate change

Transport accounts for around a quarter of the UK's carbon emissions, a key contributor to climate change. Pure electric vehicles do not produce any greenhouse gas exhaust emissions whilst being driven and those from plug-in hybrids are significantly lower than from a traditional petrol or diesel car. Switching to an electric car or van therefore makes it easy for drivers to reduce their carbon footprint and play a part in protecting the future of our planet.

c. Economic benefits

The Defra Air Quality Strategy estimates that poor air quality costs the UK Treasury £8-20bn each year⁴ and the UK is failing to meet targets set by the EU. It is anticipated that the introduction of new charge points will encourage more car owners to switch from petrol and diesel cars to EVs. This new uptake will have a significant positive impact on the air quality, helping to meet the targets set by the EU and potentially costing the UK Treasury less money.

4. Concerns about electric vehicles/charging points

a. Charging bays will take away my parking

Parking stress is a recognised issue across the capital. The conversion from parking to charging bays is therefore, a carefully undertaken process. The decision to install charge points at a particular location is made in consultation with residents and key stakeholders. The current local ownership of EVs and estimated future local demand are also important factors within the site selection process. This means that provision for charge points is accommodating known demand and future-proofing the streets for the anticipated uptake in EV ownership.

It should be noted that the creation of new vehicle charging facilities is expected to lead to greater uptake in electric vehicle ownership by way of induced demand.

² GLA commissioned research, Report on estimation of mortality impacts of particulate air pollution in London, June 2010 <http://www.london.gov.uk/airquality/health>

³ Brown, Y (2013), London Atmospheric Emissions Inventory, <https://data.london.gov.uk/dataset/london-atmospheric-emissions-inventory-2013>, accessed 8 June 2018

⁴ Page 3, The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volume 1), July 2007 <http://www.gov.scot/resource/doc/1052/0051687.pdf>

b. EV owners will queue to use charge points

Members of Source London can check availability of charge points in advance via the website or app. Source London encourages its members to use its app to determine where available charging bays are and to book them in advance. This means that the bays will be utilised efficiently and queuing is avoided.

c. EV owners should have their own home chargers

Two thirds of households in London do not have access to off-street parking⁵, and EV owners are not permitted by law to trail their charging cables across footpaths, as they represent a serious trip hazard for other users of the footway. It is therefore necessary for owners who can't charge at home to have access to on street charge points.

d. Pavement width

Ensuring comfortable pavement circulation for pedestrians is essential for the Source London site selection team. In partnership with Council Officers, the team attempt to identify sites whereby once the charge point infrastructure is installed, there is minimal obstruction to pedestrians (or vehicles). Sufficient space has been provided on all sites to enable pedestrians to circulate around the charge points without having to step into the road.

e. Noise

Given the nature and design of electric vehicles as well as the lack of internal combustion engine and exhaust, it is expected that any noise associated with electric vehicles travelling to, and using the charge points will be minimal. We have also conducted noise impact studies which show that our CPs have a 'low impact' on local residents in most scenarios.

f. LED lights

Source London and the manufacturers of their charge points have worked in partnership with various access and inclusivity groups to produce a charge point design that is appropriate for the public realm, and all users. The charge point design includes LED lighting to ensure that all points are identifiable for visually impaired footway users, to minimise pedestrian conflict and promote good circulation. The lights are also an important feature for EV users, maintenance teams and parking enforcement officers.

g. Source London charge points are not for local residents

Source London charge points can be used by any Source London member. However, our data indicates that members tend to frequently use charge points that are closest to them, often taking advantage of the overnight cap. A pay as you go option has also been introduced for non- Source London members.

⁵ TfL, (2015), Feasibility Study into Electric Vehicle Uptake and the Impacts of Associated Infrastructure

h. How do you deal with crime?

An early Crime and Disorder assessment of the scheme was carried out by Source London. Site selection has been informed by this assessment and the following measures have been included:

- Where possible, charge points will be located where there is a degree of informal/passive surveillance from pedestrians, other road users and occupiers of nearby buildings
- In the majority of cases the charge points are located adjacent to street lighting
- Some locations within London already have adequate closed-circuit television (CCTV) surveillance, and where requested, Source London will discuss the realignment of existing CCTV to suit the charge point location
- The locking mechanism at each charge point is controlled via the charge point controller. The charge point has been designed to be robust, secure and user-friendly
- Anti-skimming devices have been installed in each charge point, to ensure criminals cannot access the personal information of charge point users

i. How safe are the charge points?

Each charge point meets the necessary statutory safety requirements. The installation team ensure that all new charge point infrastructure adheres to the Institution of Engineering and Technology (IET) Code of Practice for Electric Vehicle Charging Equipment Installation. Therefore, an assessment is carried out so that the risks of simultaneous contact with electrical installations, including other street furniture is minimised.

j. High cost of using the network

Source London is a competitive charge point network that offers high level reliability and consistency for customers. A specialist maintenance team undertake routine maintenance of each charge point so all equipment is fully functional and a high standard of cleanliness is maintained. Charge points are also monitored remotely via the BT ADSL line and they are also visited when faults or damage are reported by users.

5. Information about charging points

a. What do the charge points look like?



Each charge point is designed to be consistent with the scale, mass and detailing of existing street furniture.

Points are designed at 1.3 metres in height and are generally located 600mm away from the end of the pavement; the distance between each point is defined by the type of car bay.

The colour of each charge point is chosen to ensure integration with the surrounding environment.

b. Will the charge point work on all cars?

Source London 7Kw charging points offers a type 1 plug and a type 2 socket. Nearly all electric vehicles have the potential to use the Source London network. Most of the remaining electric vehicles that are not currently compatible with these standards can use a readily available adapter to connect to the charge point.

c. How long does it take to charge an EV?

The time EVs need to charge is influenced by the size of the battery and type of charger. Each vehicle and model is different, and therefore they all have varying charge times. The new Nissan Leaf (2018) for example incorporates a 40 kWh lithium-ion battery to power the vehicle, using a 7KW Source London charge point it could take up to 6 hours to complete a full charge from a flat battery.

d. How long will they take to install?

Following the consultation process, once the final decision to install at a particular site has been reached by both Council representatives and Source London, the intention is to install the infrastructure as soon as reasonably possible. Once health and safety checks are completed, bays are suspended and the necessary licences are obtained, the installation team take around 10 days to install a charge point. During this time, excavation works are completed, power is connected, the physical infrastructure is installed and the ground is re-instated. The charge points will then be covered until they go live, probably 4-6 weeks later when the BT connection, new road lines and restriction signs will be applied to change the bays usage to charging only.

e. Who maintains the charge points?

A dedicated Source London maintenance team undertake routine checks at charge points to ensure equipment is fully functional and a high standard of cleanliness is maintained. Any damage identified during this visit is repaired on site where possible or reported for follow-up action if necessary.

Charge points are also visited when faults or damage are reported by users. The staff member will assess and if possible resolve the fault on site. Where this is not possible, an operational vehicle is directed to the station to collect and move the equipment to the maintenance depot for repair.

The Source London charge points also benefit from internet connectivity allowing for fault recognition, remote access and maintenance.

f. How do the charging bays operate?

The charging bays will be solely dedicated for EV charging, that can be used by both residents and visitors wishing to charge their EVs. Charging points cannot be used as just parking bays for EV owners, any cars found parked but not charging will receive a penalty charge notice.