



City of Westminster

City
for
All

An electric vision for a greener city

Electric Vehicle Charging Infrastructure Strategy 2020 – 2025

Summary

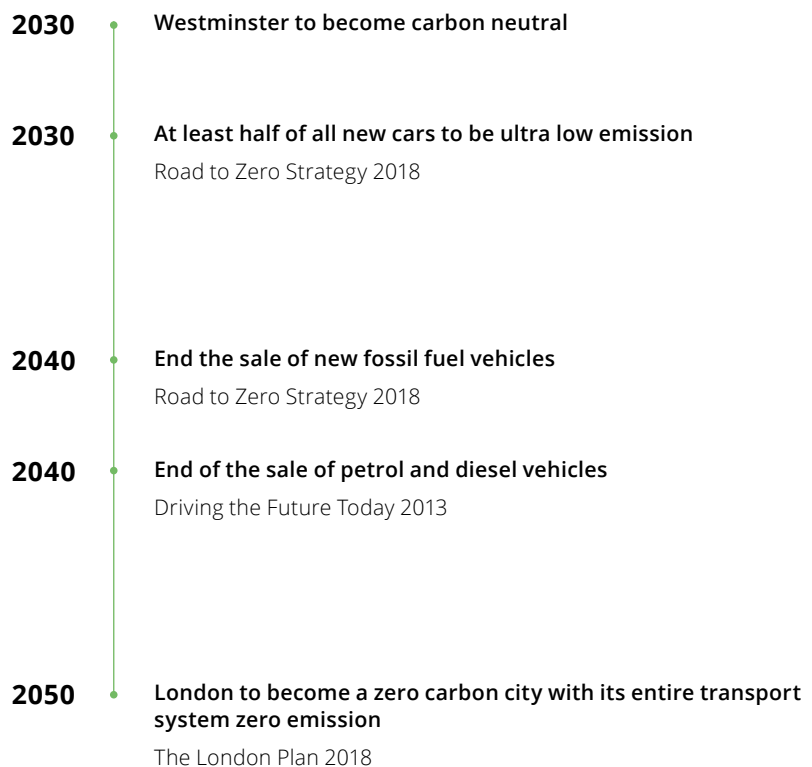
Air quality is a critical issue for everyone who lives, works or visits our city. Westminster suffers from some of the worst air pollution in the UK and emissions from traffic are a key source.

Currently most vehicles on Westminster's roads run on petrol and diesel. Burning fuel produces noxious CO₂ emissions and oxides of nitrogen which has a detrimental effect on our health and the planet. Poor air quality is considered to contribute up to 36,000 deaths in the UK every year. Each day our city also produces more carbon than the whole of Cardiff or Newcastle. This must change.

In September 2019 we passed a resolution to make Westminster carbon neutral by 2040.

The switch to zero and ultra-low emission vehicles is an integral part of reaching our carbon neutral objective, set out in the Westminster Air Quality Action Plan and the Air Quality Manifesto (March 2018).

Westminster already leads the way in Electric Vehicle (EV) charging infrastructure, and this ambitious strategy commits us to doubling the number of Electric Vehicle Charging Points (EVCP), to reach over 1,000 in the next year.



Leading the way in electric

The growth in the sales of EVs is accelerating with all major car manufacturers now having an EV option.

Westminster already has a high level of EV car ownership with over 2000 EVs registered. Since January 2018 we've received 950 requests from residents for charging points. To meet this demand, we've set out to significantly increase our charging infrastructure.

Westminster already has 485 publicly available EVCP¹ including 22 rapid charge points. That equates to 190 EVCP per 100,000 residents – the highest of any local authority in the UK. These rapid charging points allow visitors and new London taxis to charge-up quickly. There are currently 54 EVCP per square mile in Westminster which we anticipate reaching 100 by December 2020.

We've also been working with UK Power Networks to better understand and take advantage of the opportunities new technology brings.

Types of charging points

The main difference in chargers is based on the power available for charging so the more powerful the charger the shorter the time required to recharge a vehicle.

- **Trickle:** The 3kw charger is the older type of charger that uses domestic type power to charge a normal sized car in 7 – 8 hours (depending on battery size).
- **Fast:** The 7kw charger requires more robust cabling and reduces full charging down to 3 – 4 hours.
- **Rapid:** The 22kw rapid charger is aimed at users who need a full charge in approximately 45 minutes depending on battery size.
- The latest forms of rapid chargers are up to 175kw with the majority at 50kw and can charge the larger type of vehicles in 10 – 30 minutes.

This strategy hopes to enable electric vehicles to thrive in our city, alongside other sustainable modes of transport such as walking and cycling.

¹ This includes a number of publically available EVCP in car parks managed by 3rd parties.



Meeting the demand

Good stakeholder engagement is important to us, particularly in issues where we hope to see a shift in attitude and behaviour. In July and August 2018 we reached out to residents to ask their views on existing EV charging and what they wanted in the future. This has helped inform our strategy.



62% did not have an access to off-street car parking



Over 80% wanted to see an increase in the installation of lamp post chargers



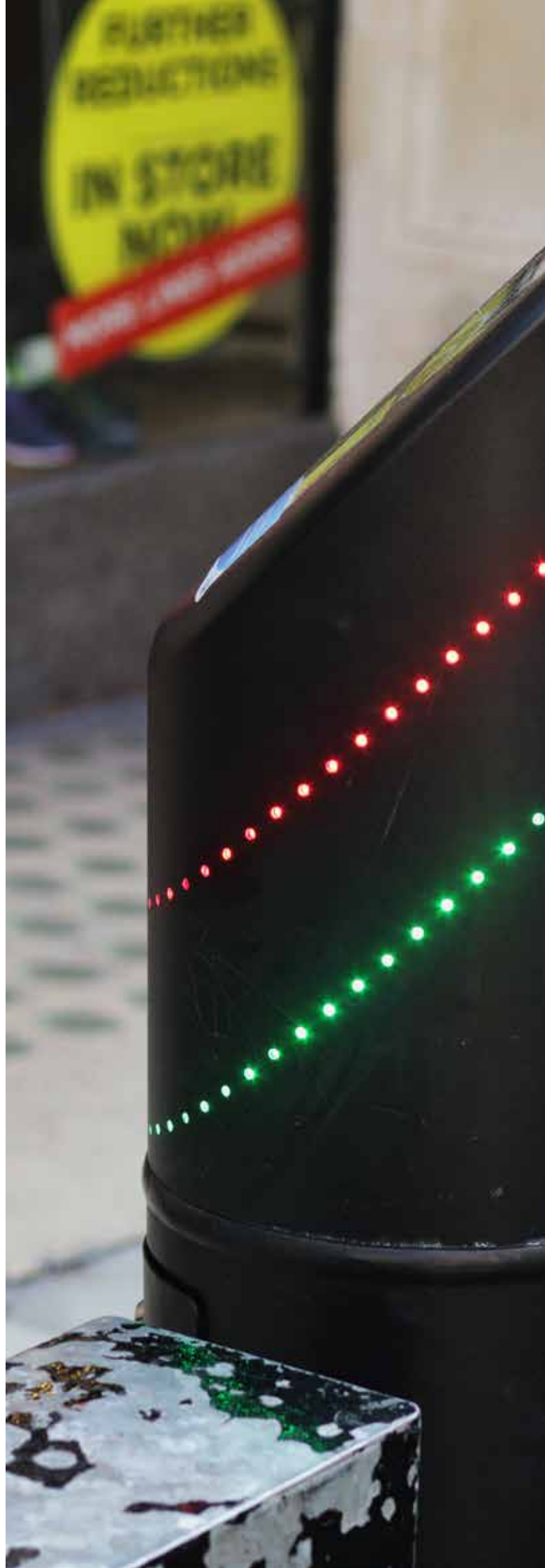
70% wanted to charge their EV at night near their home



75% cited lack of on-street chargers as a deterrent to buying an EV



Over 90% said that five minutes or less was the suitable walking distance to a EVCP





The strategy

Our strategy takes into account the needs and aspirations of all user groups over the next five years. As this is a fast changing operating environment this will be reviewed annually.

Objectives

- EV charging facilities to meet the needs of every user
- Choice of charging for different vehicles
- Efficient charger operation and maintenance
- Maintain and improve supporting infrastructure
- Innovation through Electric Vehicle Charging Point technologies

We will do this by:

- Championing the switch to EVs by installing at least 200 new charge points every year
- Partnering with developers, land owners, business and residents to meet EV needs
- Working with suppliers to provide on-street chargers everywhere they are needed
- Making EV charging infrastructure readily available on estates, at schools, other corporate parking sites and at new developments
- Ensuring installations are accessible and suitable for all users
- Supporting electric vehicle Car Club schemes
- constantly seeking opportunities to provide new facilities and future proofing infrastructure
- Working closely with suppliers to monitor and fix maintenance issues to ensure the highest levels of availability
- Displaying up-to-date information, location and charges on the council website
- Conducting an annual review of installations

Future ready

By April 2021 and 2022 we will have:

Charger Type	April 2021	April 2022
Rapid Charger (50 kW+)	20	25
Fast Charger (7 – 22 kW)	180	200
Trickle (3 kW)	800	980
Total	1000	1205

We've been trialling new technology and in June 2019 met with UK Power Networks to discuss capacity, challenges and opportunities. At present we can install up to 22 kW charge points across the network without impact. The network capacity to accommodate Electric Rapid Charge Points (50 kW+) is less consistent but improving.

An annual action plan for Electric Vehicle Charging Point installations and promotion will be published in December/January annually for the next five years.

The Westminster Context

- Most of the charging equipment will have to be located on-street as 89% of households are flats
- Westminster has a large number of residential estates and each will have charging facilities installed where parking space is available. The cost of charging will be met by the customer and not by the residents of the estate collectively
- We will also look to accommodate charging points for visitors to the city
- All new developments being built throughout Greater London will have to think electric and will be required to have fully installed EV charging in 20% of the spaces with an additional 20% cabling capacity for future installations

A clear road ahead

Funding the switch

Costs of the EV charging programme will be met through fees from operators. We will also explore a number of funding sources, including Go Ultra Low Cities Scheme (GULCS), Office of Low Emission Vehicles (OLEV), Local Implementation Plan (LIP) funds from Transport for London (TfL), Council's Community Infrastructure Levy (CIL) funds and those from 3rd parties. These sources are separate from any monies received from operators. Capital funding of £12.2 million over four years has also been made available to support the roll out of charge points.

Costs and charges

We don't set the charges to customers, these are determined by the operator. By allowing a number of operators to compete, it allows for greater customer choice. PAYG and contactless payments are now commonplace to allow easy payment. The council website will be regularly updated with costs listed.

Car sharing

The growth of car sharing initiatives such as the Westminster Car Club hybrid-electric car-share and Zip Club's pay-as-you car share scheme has been encouraging. We look forward to working with operators to see how we can facilitate charging infrastructure activity to meet growing demand.

Working with you

We value all stakeholder feedback and will be working with residents, businesses and operators to garner feedback on current provision and future demand. You can get in touch with us at evcharging@westminster.gov.uk



