London's electric vehicle infrastructure strategy – 2025 update

October 2025

MAYOR OF LONDON

TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

Contents

List of figures

List of tables

Executive summary

This update to our Electric Vehicle (EV) Infrastructure Strategy considers the impact of policy and technology changes on EV take up and public charging infrastructure delivery. It presents progress against the commitments from December 2021 and proposes new commitments to address ongoing barriers to delivery and EV transition for key user groups.

EV registrations are increasing in London at a faster rate than the UK, with 45,240 new plug-in cars registered in 2024 and more than 221,500 plug-in cars now registered. Registrations for electric vans are also increasing, although at a slower rate than for cars, with 6,700 plug-in vans in London. We have updated our forecasts to reflect that EV registrations have grown in line with the lower end of our 2030 forecasts in our 2021 model.

Infrastructure delivery has continued at pace, reaching over 25,500 public charge points across London, a significant increase on the 9,000 public charge points when our strategy was published in December 2021. Most of London's public charge points are low power (20,600 charge points up to 8kW) reflecting extensive delivery of lamp column and on-street charge points by the London boroughs. There are over 1,400 higher-powered rapid and ultra-rapid charge points (50kW and above), up from 720 in December 2021 (of which TfL had delivered over 300 50kW charge points). We are now seeing an increase in ultra-rapid charge points, some with charging speeds up to 400kW to meet the needs of new cars capable of charging at these speeds. We have also seen a substantial expansion in both the number of locations with multiple rapid charge points - with 55 hub sites with six or more rapid charge points, compared with only 14 in December 2021 - and the coverage of these hub sites across of London.

Access to land remains a barrier to delivering higher-powered charge points in London. The keystone commitment we set in 2021, to unlock GLA Group land and work with London boroughs to unlock borough land to repurpose for EV charging, remains just as important today. We will continue our higher-powered charging delivery, installing charge points in parking bays on our road network and building new ultra-rapid charging hubs through Places for London's joint venture partnership with Fastned.

London's public EV infrastructure forecasts to 2035

We have updated our EV infrastructure model to include a better reflection of the utilisation of London's charge points and revised future EV fleet forecasts. We have also updated our assumptions to increase the proportion of drivers who would choose to use slow public charging overnight near to home. Our updated modelling suggests that London would need a similar number of charge points to what we set out in our 2021 strategy. Our new projections are for between 43,000 and 51,000 public charge points in 2030, of which up to 3,500 would need to be higher-powered. By 2035, this increases to between 69,000 and 79,000, including up to 4,300 higher-powered. We will update our London EV infrastructure forecasts again in two to three years and seek to refine our modelling with more granular inputs, to better support boroughs in understanding their future EV infrastructure needs.

New commitments

Affordable charging: The cost of public charging remains a huge barrier to switching to EVs. We are undertaking public charge point pricing research to better understand the factors that influence price and identify any potential solutions which could lessen the cost of public charging, and will share the results with London boroughs by spring 2026.

Accessible charging: Being able to access public charge points remains a challenge for disabled and older EV users. We are working with charge point operators to ensure that accessibility is a key priority when new charge points are installed. We are undertaking research to determine how accessible London's public charging infrastructure is and identify what information disabled and older EV users need to help them understand if a public charge point meets their needs. We will share the results widely in 2026.

Charge points for commercial vehicles: Access to public charge points suitable for commercial vehicles remains a challenge. We will publish new guidance in 2026 identifying areas where drivers will be reliant on public charge points, for local authorities and other organisations delivering public charge points in London suitable for larger vans. To support electrification of heavy vehicles, we will share data we are compiling on charging locations for HGVs that align with strategic freight routes and are near driver rest stops and service stations, and establish a coach operators forum during 2025/26 to better understand the coach sector's charging requirements.

Shared charging to support emergency services and other fleets: Sharing charge points between businesses or with specific user groups is a fantastic opportunity to maximise the use of infrastructure, and make more infrastructure available overall. There are now some early case studies of this emerging elsewhere in the UK and we will seek to enable this in London, by running shared charging pilots in 2026, to benefit these types of fleets.

Supporting taxis, private hire vehicles and car clubs: With our own charge point delivery as well as London boroughs' and neighbouring local authorities' we will use current data to make sure we meet the charging needs of taxis, private hire vehicles and car clubs. We will continue to work with boroughs to enforce use of taxi-dedicated charging bays on their roads.

With the continuing evolution of the EV market, it is essential that we continue with our own rapid charging delivery, and work with the London boroughs and the private sector to develop a future-proofed public charging network that is accessible to all users and includes the right types of charge points in the right locations for key user groups making essential high-mileage trips.

1. Introduction

London's EV infrastructure strategy

Our EV Infrastructure Strategy, published in December 2021, sets out our vision, addresses trends and policy changes, and estimates infrastructure needed up to 2030, as well as delivery mechanisms.

Our strategy supports the Mayor's ambition for London to be a net-zero carbon city by 2030 and to ensure better air quality for all by accelerating the switch to EVs and providing the infrastructure needed. Given the target in the Mayor's Transport Strategy for 80 per cent of all trips to be walked, cycled or made by public transport by 2041, our strategy focuses on supporting the remaining 20 per cent of trips to use the cleanest vehicles. In particular, we are focused on supporting key user groups, those making high-mileage road trips, such as taxis, private hire vehicles and commercial vehicles to transition to electric vehicles.

In our 2021 strategy, we forecast that London will need between 40,000 and 60,000 public charge points by 2030, including between 3,000 and 4,000 higher-powered/ rapid charge points, to support between 1 million and 1.4 million EVs. It sets out a series of commitments to enable London to achieve its forecast infrastructure needs and help key user groups transition to EVs.

This update reviews wider policy and technology changes that have impacted EV take up and public charging infrastructure delivery. It presents our progress against strategy commitments, and considers ongoing barriers to delivery, proposing new commitments to address these. It also provides updated infrastructure forecasts based on the number of EVs currently on our roads and forecast increases, driver behaviour in relation to charging, and the volume and types of infrastructure delivered over the past three years.

Changes in policy context

London's policy context

In May 2024, Sir Sadiq Khan was elected for a third successive term as Mayor of London. He reiterated his 2030 net zero carbon ambition and committed to making London the world's first 'EV-ready' global city by working with partners to double the number of charge points installed since 2016 to more than 40,000 by 2030.

In 2021, as a result of growing evidence of the negative health impacts of air pollution, even at levels previously considered to be low, the World Health Organization (WHO) updated its health-based air quality guideline limits. The WHO also introduced a series of additional "interim targets" designed to be used as incremental steps towards meeting the air quality guideline limits. The Mayor has committed to meeting the interim WHO $PM_{2.5}$ target by 2030, and to meeting the WHO's latest guidelines for NO_2 and $PM_{2.5}$ as soon as possible.

To support businesses and charities to transition to EVs, the London-wide expansion of the Ultra Low Emission Zone (ULEZ) in August 2023 included a scrappage scheme which provided up to £9,500 towards the scrapping or donating of a non-compliant van and buying an electric van to replace it. Combined with similar grants issued in the previous scrappage scheme for earlier ULEZ phases, we approved grant funding towards almost 550 electric vans.[1]

In March 2025, we published a new Taxi and private hire action plan, which recognises the role this user group performs and includes actions to attract drivers, ensure safety, deliver consistently high standards and continue to reduce their environmental impact. Actions include improving access to charging infrastructure and advocating for reducing the cost of EV purchase and charging, which will be reflected in this EV infrastructure strategy update. We will also consult with the taxi trade and private hire industry in 2025/26 on a proposal to introduce a zero-emission licensing requirement for newly registered taxi and private hire vehicles in the future.

Between May and August 2025, we undertook a consultation on the proposed changes to the Congestion Charging scheme. In addition to an increase in charge level, a new Cleaner Vehicle Discount is proposed, rather than removing the discount altogether at the end of 2025, which was previously planned. Two phases of changes are proposed with the discount halving in 2030, reflecting increases in eligible vehicle numbers:

- From 2 January 2026, a 50 per cent discount for electric vans, heavy goods vehicles (HGVs), light quadricycles and heavy quadricycles registered for Auto Pay and a 25 per cent discount for electric cars registered for Auto Pay.
- From 4 March 2030, a 25 per cent discount for electric vans, HGVs and quadricycles registered for Auto Pay and a 12.5 per cent discount for electric cars registered for Auto Pay.

In addition, it is proposed that the 90 per cent residents' discount for new applicants be limited to EVs, starting on 1 March 2027.

National policy context

Ending the sale of new petrol and diesel cars and vans and incentivising EVs

In September 2023, the Government published the zero-emission vehicle mandate, which included minimum annual targets for new zero-emission cars and vans. Starting from 2024, sales targets increase up to 80 per cent for cars and 70 per cent for vans by 2030. In December 2024, the new Government confirmed it would move the end date for the sale of internal combustion engine cars back to 2030. In

[1] ULEZ Scrappage scheme fact sheet Jan 2023 to Sept 2024 and London-wide Ultra Low Emission Zone scrappage scheme evaluation report

April 2025, the Government confirmed the sale of hybrid and plug-in hybrid electric cars and internal combustion engine vans would be permitted until 2035.

Changes were made to acknowledge the higher weight of electric vans, so that they could continue to be treated as vans rather than HGVs due to their weight. Both testing requirements and driver license requirements have been amended to reflect this.

Until recently, EV car owners have not been required to pay vehicle excise duty based on having zero CO_2 emissions. In April 2025, EVs became subject to new vehicle tax rates, with drivers paying different amounts depending on the type of vehicle and when it was registered. Owners of EV cars with a list price of more than £40,000 are also now subject to the expensive car supplement. For company cars, the benefit in kind tax rate for EVs also increased from April 2025 and will continue to increase by around one per cent per year up to 2029/30.

The Government continues to offer plug-in vehicle grants to reduce the higher upfront cost of EVs and towards the installation of private charge points. A new electric car grant was introduced in July 2025, while grant levels for new vans, trucks, wheelchair accessible vehicles and motorcycles have been retained until April 2026. The plug-in grant for new taxis was reduced from £6,000 to £4,000 in April 2025. Chargepoint grants towards installation and infrastructure for renters and flat owners, households with on-street parking, car parks and workplaces are also still available and new grants were introduced in July 2025 for depot charging for vans, HGVs and coaches.

National EV charging strategy and funding

The Government published the UK's EV infrastructure strategy in March 2022, estimating that the UK would need at least 300,000 public charge points by 2030. The strategy prioritises the delivery of rapid charging on major roads and supports local authorities to develop their own EV infrastructure strategies and increase delivery on local streets. It explains the need for regulation to ensure public charge points are reliable and easy to use, including improving accessibility for disabled users. It also details the Office of Gas and Electricity Markets' (Ofgem's) work to make charge points easier to connect and integrate with the electricity system.

In March 2023, London was allocated £35.7m of capital funding from the Local EV Infrastructure (LEVI) fund, aimed at accelerating the deployment of local, primarily low-power, on-street charge points. London received £4.2m of LEVI capability funding to provide officer and operational resources for London Councils and the boroughs between 2022/23 and 2025/26.

The rapid charging fund was also launched to enable an ultra-rapid charging network across strategic routes and motorway services, including covering some of the costs of upgrading the electricity grid at strategic locations.

Regulations to improve customer charging experience

In October 2022, the British Standards Institute published the PAS1899 EV accessible charging specification to encourage the building of inclusive charging infrastructure in the UK. The standard is sponsored by the Office for Zero

Emission Vehicles (OZEV) and Motability Foundation, a scheme that supports disabled drivers, and provides guidance for accessible charge points for a range of charging speeds and environments. It shows best practice to ensure public charge points and infrastructure are accessible to all users and includes essential specifications for designers, procurers and installers.

The Public Charge Point Regulations 2023 were established to improve drivers' experience of using public charge points. The regulations require that prices for charging are transparent and easy to compare, in pence per kWh, and separate from any parking charges. From November 2024, all public charge points with a power of 8kW or above must include contactless payment options, with payment roaming enabled by November 2025, allowing drivers to pay to charge an EV across multiple charge point networks using a single app or charging card. Charge point operators were required to share their data by November 2024 so that drivers can find available and working charge points. They were also required, by November 2024, to meet a reliability requirement, to ensure a network of rapid charge points is, on average, reliable for 99 per cent of the time.

Guidance for local authorities and others delivering charging infrastructure
In December 2023, the Government published a policy paper with actions to improve the grid connection process for EV charging infrastructure. Planning legislation is also set to be changed to provide additional flexibility in England through permitted development rights when installing off-street charge points and be amended to enable charge point installers to use street works permits, instead of licensing, to make it easier to install charge points. In June 2025, the Government confirmed planning permission will no longer be required for some public charge point installations, including on-street.

In February 2025, the Institution of Engineering and Technology (IET) and Department for Transport (DfT) published an updated Guide to EV Charging Infrastructure for Local Authorities. We have reviewed the guidance and consider it relevant for London borough officers, and will therefore not need to update TfL's 2019 London EV charge point installation guidance. The IET guidance considers London requirements, with reference to our Pedestrian Comfort Guidance, and the PAS1899 accessible charging specification, which will help borough officers to ensure that charge points are accessible to all users while also not impeding footways.

Reviewing Government progress with EV uptake and infrastructure delivery
The House of Lords Environment and Climate Change Committee published its EV Strategy: Rapid recharge needed report in February 2024. This stated that the transition to EVs was essential for the UK to meet its net-zero emissions target by 2050 and, while there had been progress in this area, the switch was not happening fast enough. It noted the barriers that were slowing down this transition and made recommendations around communication and political messaging; the comparatively high initial costs of buying an EV; charging infrastructure and affordability; and the complexity of electricity grid decarbonisation and recycling of EVs.

The National Audit Office published its Public charge points for EVs report in December 2024, assessing whether the Department for Transport was achieving value for money in the rollout of EV infrastructure. It found that there needs to be a greater focus on where charge points are located and how accessible they are, as well as the need for solutions to address barriers in planning and electricity network connections. Based on this report, the House of Commons Committee of Public Accounts interviewed DfT officers and published a follow-up report concluding that some regions outside London and the South East and rural areas have too few public charge points and that more ultra-rapid charging is required in motorway service areas. It also noted the big difference in cost between using public and private charge points and that the needs of disabled drivers have not been met in the distribution so far.

We expect the policy context will continue to shift over the next few years, reacting to changes in government incentives and global policy developments and their impact on EV uptake and infrastructure delivery in the UK.

2. EV industry developments

Vehicle developments

We continue to see new EV registrations increase in London at a faster rate than the UK total, with 45,240 new plug-in cars registered in 2024, comprising 33 per cent of all new cars registered, compared with 27.5 per cent of UK registrations.[2] Plug-in vehicles include battery electric vehicles (BEV), and plug-in hybrid (PHEV) and range-extended EVs. Figure 1 shows that the number of EVs in London continues to increase, with 221,503 plug-in cars (140,166 of which are BEV cars) in March 2025. These make up 8.5 and 5.3 per cent of all cars registered in London respectively, compared with 6.3 and 4.1 per cent of UK registrations.[3]

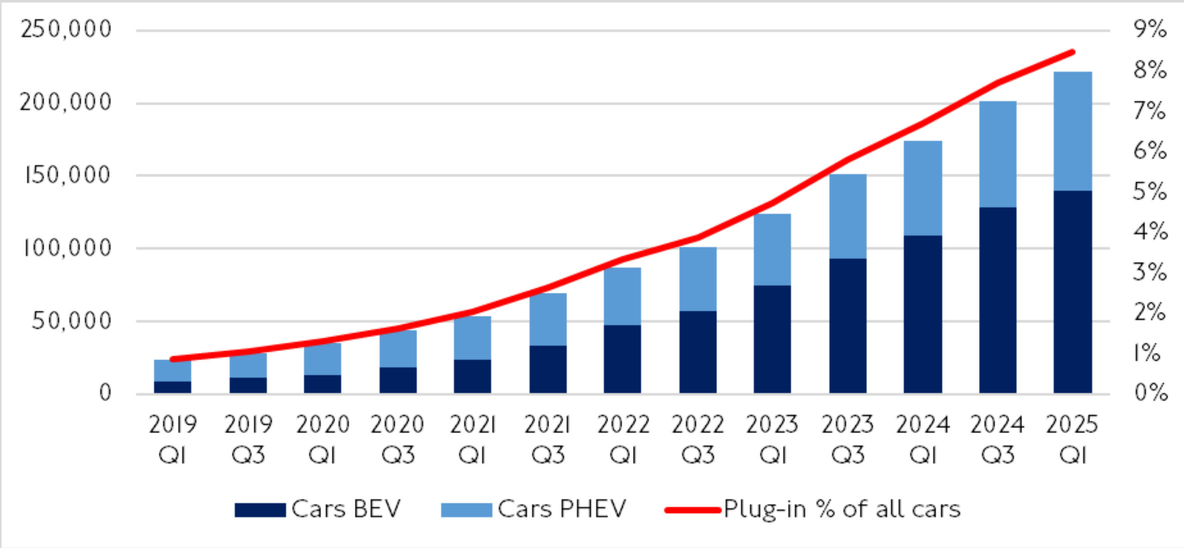
The rate of adoption of electric vans remains slower than for cars. In 2024, there were 1,054 new plug-in vans registered in London, making up 10.2 per cent of all new van registrations. By March 2025, 6,699 plug-in vans were registered in London (3.3 per cent of all vans), with most of these being BEV (6,102), showing a higher adoption rate than for the UK, where 98,804 plug-in vans comprised 2.1 per cent of all van registrations.

DfT data for March 2025[4] shows that many of these new EVs are registered to companies, particularly vans, with over 80 per cent of London BEV vans and over 90 per cent of UK BEV vans registered to companies. With cars, 49 per cent of BEV cars, but only 38 per cent of plug-in hybrid cars in London are registered to companies. This could be influenced by companies with salary sacrifice schemes preferencing zero-emission vehicles, noting that these cars are classed as company cars from a tax perspective. Company cars tend to have relatively short ownership periods of three to five years[5]. With company cars passing into the second-hand market, we should see an increase in the number of BEV cars in the second-hand market.

---

[2] VEH1154 and VEH0182, Vehicle licensing statistics data tables, DfT
[3] VEH0142 and VEH0105, Vehicle licensing statistics data tables, DfT
[4] VEH0142, Vehicle licensing statistics data tables, DfT
[5] UK corporate cars electrifying quickly, T&E United Kingdom, 2024

Figure 1: Number of plug-in cars (PHEV and BEV) registered in London (and as a percentage of all cars registered in London) at the end of March (Q1) and September (Q3). Source: DfT, 2025



The increase in the number of EVs in London has led to an increase in the proportion of car and van kilometres by plug-in vehicles compared to internal combustion engine vehicles. The proportion of car kilometres (excluding private hire vehicles) by BEV cars increased from four per cent in central London in 2021 to 12 per cent in September 2024. BEV van kilometres increased from 3 per cent in 2021 to nine per cent of the total in central London.

Of the vehicles that we license, BEV private hire vehicles, which comprised 5 per cent of London-licensed private hire vehicles in 2021, accounted for more than 32 per cent of all private hire vehicle kilometres in central London in September 2024. Zero-emission capable (ZEC) taxis, which comprised almost 60 per cent of London licensed taxis in September 2024, accounted for 71 per cent of all taxi kilometres in central London. Most ZEC taxis in London are the LEVC TX taxi, with an electric range of up to 78 miles and a petrol range extender. Responses to our driver survey in January 2024 indicated that taxi drivers were spending around half of their total driving time using their electric motor.

EV market trends

The number of EV car models available increased by 15 per cent year-on-year in 2023 to nearly 590 globally, with EVs following the same trend as internal combustion cars and getting bigger, as sports utility vehicles (SUVs) made up two-thirds of BEV models available in 2023. Concerns about battery range and the availability of charging infrastructure for long-distance journeys have also contributed to an increasing appetite towards larger models with a longer range. In 2023, the average range for small cars globally remained relatively low at around 100 miles, which explains why they are mostly used in urban settings, while the range has increased for larger, higher-end models and medium-sized cars, averaging around 236 miles. Range continued to increase for new cars coming to market in the UK in 2023, with an average range of almost 300 miles, and some models having a range of more than 450 miles. With Chinese manufacturers expanding into the UK market and more looking to enter, as well as competition from European manufacturers, the range of cheaper models and options available is set to increase further.

A report by New Automotive in 2024 noted that tax benefits for zero-emission company cars and salary sacrifice schemes provided by workplaces are also contributing to reducing the difference in price compared to petrol equivalents, with some BEV models already cheaper when purchased through these options. Even with higher upfront or leasing costs for BEVs, the total cost of ownership for the average car driver will break even over a five-year period from 2025, or over a shorter period for high-mileage drivers who are able to charge overnight and so can benefit from off-peak tariffs.

The DfT's analysis of cost benefits in 2023 showed the market for used electric cars also continues to grow to match the market for new electric cars. Nationally, used BEV car transactions increased by 57 per cent to 188,382 units and 2.5 per cent of the market, up from 1.7 per cent in 2023, and PHEV sales also grew by 32 per cent to 92,120 units. Research into second-hand EVs by the Society of Motor Manufacturers and Traders shows that second-hand EVs in the UK are now being sold at the same price as petrol equivalents across many makes and models.

Large EVs in the commercial market

There are now 48 models of large electric van (with a Gross Vehicle Weight (GVW) of between 2.5t and 4.25t) and 24 models of electric trucks (five under 12t and 19 more than 12t GVW) available in the UK.

The uptake of large commercial EVs, including HGVs and coaches, remains substantially behind cars and vans, reflecting a less-developed market. In 2024, 238 new battery electric HGVs were registered in England, representing just 0.5 per cent of new HGVs. Not many electric coaches are being purchased at present, with evidence of just a few vehicles currently in service, all of which are supplied by one importer and manufacturer.

The role of public infrastructure is now being considered, with some prominent logistics and courier companies placing relatively large orders for electric HGVs. While the first organisations to buy these are doing so based on charging at their own locations and customer depots, smaller freight operators are likely to rely on publicly accessible infrastructure before switching to zero-emission HGVs. The location, type and power available for larger commercial vehicles are very different from existing charging infrastructure, designed predominantly for cars and some vans. Consideration of public infrastructure needs for HGVs is discussed later in this document.

The use of zero-emission buses also continues to increase in London, driven by the Mayor's ambition for London's bus fleet to be zero-emission by 2030. There are currently more than 2,200 zero-emission, battery-electric and hydrogen buses operating in London, with a further 1,500 on order.

Research into non-exhaust emissions

Non-exhaust emissions (NEE) from road transport are particles from tyre wear, brake wear and road surface wear. As exhaust emissions reduce, the proportion of transport particulate matter (PM) emissions that come from NEEs is getting larger.

New research published by the European Institute of Technology Urban Mobility in May 2025, in conjunction with the GLA and us, found that overall, fleet electrification will reduce NEEs. It recommends that faster fleet electrification is pursued in the short term, but this should be alongside measures to tackle the trade-off of increased vehicle weight that increases tyre and road wear.

The research found that the introduction of regenerative braking in BEVs reduces the need to use the established mechanical braking system. Data indicates that regenerative braking can reduce brake wear emissions by up to 48 per cent for hybrid electric vehicles (HEVs), 66 per cent for PHEVs and 83 per cent for BEVs. However, because BEVs typically weigh more, they emit more tyre and road wear PM emissions than similar or equivalent internal combustion engine vehicles. As EVs are 20 per cent heavier on average than equivalent internal combustion cars, their increased weight leads to 20 per cent higher tyre and road wear emissions. EV battery weights should reduce, while still increasing in capacity, as battery technology advances, including through the development of lighter materials and solid-state batteries.[6]

The Euro 7 standard will introduce new stricter limits on exhaust emissions and will regulate non-exhaust emissions for the first time as well as including a requirement for environmental vehicle passports and battery durability for BEVs. It is expected to be phased in from late 2026 in Europe. We encourage the Government to align the UK with the Euro 7 standard.

EV infrastructure developments

High-powered charging and hubs

The maximum power available for ultra-rapid charge points continues to increase. Although the most common higher-powered charge points are still 50kW, we are now seeing sites in London offering 350kW and 400kW charge points, meeting demand from newer electric cars with increasing maximum charging speeds.

We are also seeing an increase in the number of hub and cluster sites with more ultra-rapid charge points, most of which can charge two vehicles at the same time.[7] New charge point operators, including Fastned and Sainsbury's Smart Charge, are entering the London rapid charging market and the number of fuel

---

[6] Electric vehicles: Can 'lightweighting' combat range anxiety? BBC Future, 2024

[7] A hub site has six or more rapid or ultra-rapid charge points. A cluster site has between three and five rapid or ultra-rapid charge points. Most ultra-rapid charge points can charge two vehicles at the same time

retail sites with EV charging is growing, including some with dedicated flagship sites, such as the Shell hub in Fulham, which opened in January 2022.

Tesla opened its first London supercharger site to drivers of other cars in Uxbridge in May 2022 and has added more London sites including in Bromley, Heathrow Airport, Kingston, North Greenwich and Sidcup. Supercharger sites typically have 12 or more 250kW charge points.

It is important that CHAdeMO connectors continue to be available to ensure all vehicles can access rapid charging.

Low-powered, slow charge points

There has been a significant increase in the volume of low-powered charge points installed across London, with London boroughs continuing to install lamp column and kerbside charge points, which are generally less obtrusive and cheaper to install than standalone charge points.

Until now, to use many low-powered charge points, drivers have needed to be members of the operator's network, but some such charge points are now being installed with contactless technology to enable drivers to pay more easily and without requiring a membership.

There are also companies offering cross-pavement solutions that allow residents who do not have off-street parking to charge an EV from their own domestic charge point without trailing cables. In December 2024, the government published guidance for local authorities on cross-pavement solutions for charging EVs. London Councils has also published a report for London which highlights the dangers of trailing cables across pavements and enables boroughs to make informed decisions on whether to allow cross-pavement solutions. It pulls together best practice across a range of areas, including types of technology, safety, legal liabilities, costs and frameworks, as well as lessons learned from trials being undertaken in London and other parts of the UK. The government's pavement channels grant provides funds for local authorities, including London boroughs, in 2025/26, to install cross-pavement channels.

New technologies

Wireless charging technology charges EVs without needing a physical connection between the vehicle and charging infrastructure, as power is transferred by induction instead. There are barriers to widespread use for road transport, including standardisation, the ability of systems to work together, a lack of compatible vehicles, cost and complexity.[8] While wireless charging technology could be used by taxis in working ranks, these barriers make it unlikely that wireless charging will be an option for charging taxis in the short term. As per our strategy commitment, we will continue to explore innovative charging options, including wireless charging on taxi ranks, if these barriers have been addressed.

---

[8] Guide to Electric Vehicle Charging Infrastructure for Local Authorities, The Institution of Engineering and Technology, 2025

We continue to monitor new, innovative and experimental charging solutions across all vehicle types. This includes pantograph charging for buses, already in operation in London on bus route 358. There is also potential for wireless charging for HGVs and buses.

Technology that enables battery swapping is also being developed with companies actively installing and promoting this technology in Europe, and working with vehicle manufacturers to install the technology in vehicles. This technology is already available in China for cars and is more commonplace in India and countries with larger fleets of electric two and three-wheeled vehicles. This technology enables a driver to recharge their vehicle by replacing the battery in around five minutes through an automated process. As with wireless charging, this technology also offers benefits in terms of accessibility, with drivers not being required to leave the vehicle or handle a connector. However, to be practical for high mileage drivers, it would need to be delivered at scale, with sufficient battery swapping stations available, and could compete with existing plug-in technologies for space.

We will also monitor new battery and charging technologies, including the potential for megawatt charging for cars, which could match the speed of refuelling an internal combustion engine vehicle. This technology is currently focused on heavy-duty vehicles, but is being considered by car manufacturers, such as BYD.

EV infrastructure delivery

Public charge point delivery continues at pace in London, as shown in figure 2, using DfT published quarterly statistics, with data correct for 1 January and 1 July. The latest monthly data from Zapmap, as shown in table 1, shows that, as of 31 July 2025, there are over 25,500 public charge points across London, with the vast majority being slow charge points, particularly lamp columns charge points.

Figure 2: Public EV charge points in London by slow and fast (up to 22kW) and higher-powered (50kW and above). Source: DfT

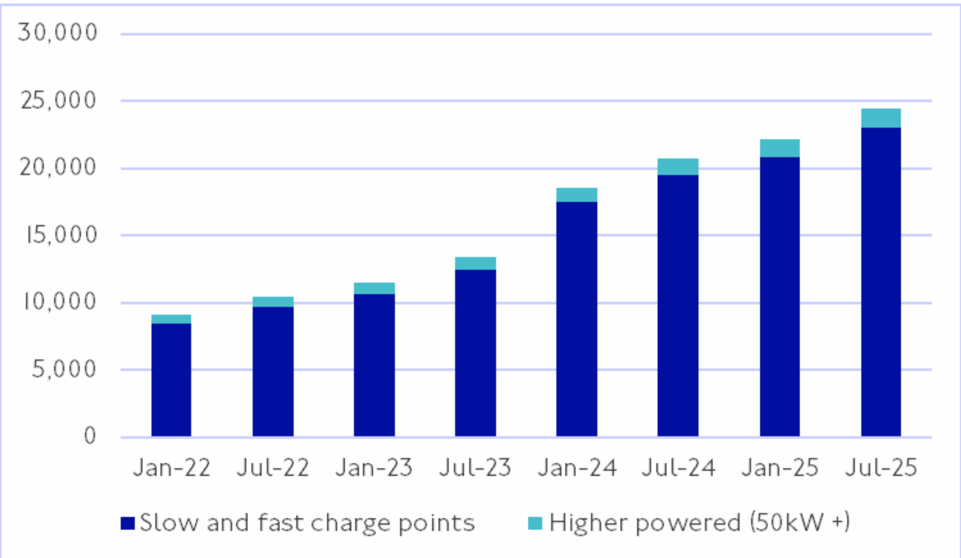


Table 1: Public charge points in London by charging speed, 31 July 2025. Source: Zapmap

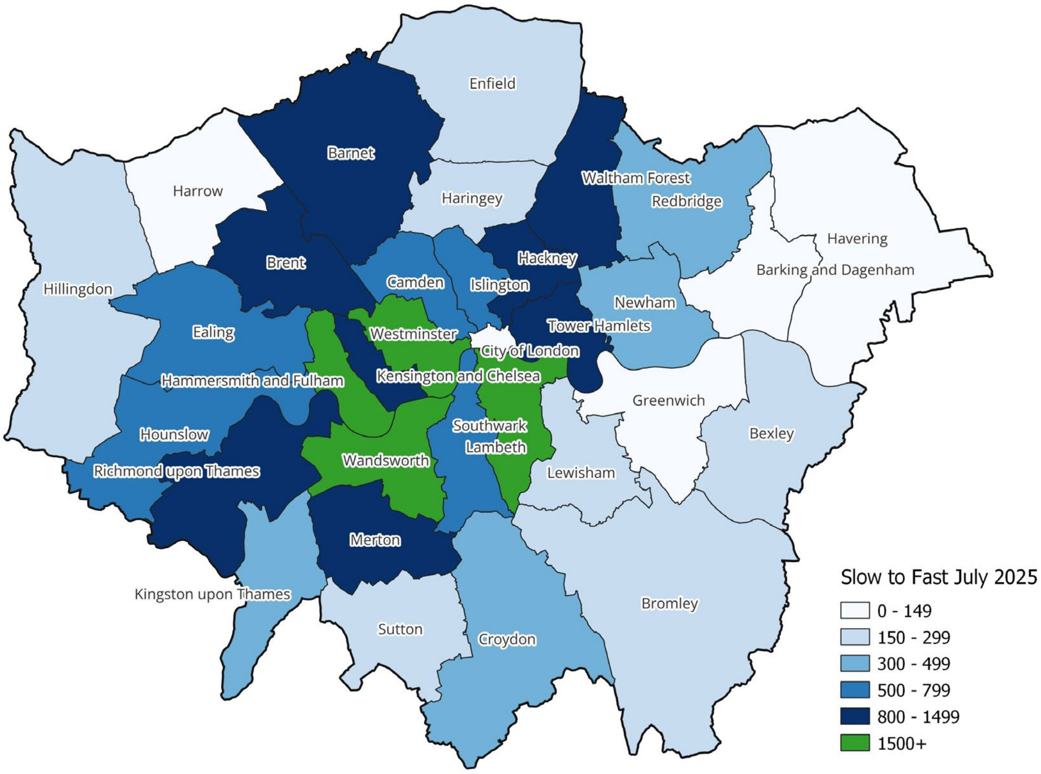
Charge point speed	Number
Slow/ low power (up to 8kW)	20,629
Fast (8 to 22kW)	3,450
Rapid (50 to 149kW)	654
Ultra-rapid (150kW and over)	776
All public charge points	**25,509**

Note: this table uses industry-recognised bandings, which have changed since 2021, such as including 7kW devices within the slow category and only including devices of 150kW and over in the ultra-rapid category.

Slow and fast charge point delivery

Our strategy noted that London's boroughs had installed around 4,800 slow and fast charge points by November 2021. We now have more than 24,000 slow and fast charge points, the majority of which will have been installed by borough contracts, including with government funding, such as the On-street Residential Charge Point Scheme and the earlier Go Ultra Low City Scheme. Slow to fast charge point delivery has tended to be concentrated in inner London boroughs, and areas where there is greater demand from residents without access to off-street parking. We have seen the biggest increases in charge point numbers in Hammersmith and Fulham, Westminster, Southwark, Wandsworth and Hackney in inner London and in Waltham Forest, Richmond, Brent and Merton in outer London. Figure 3 shows the concentration of slow to fast charge points across London and Appendix A shows the change in charge point delivery since the strategy was published in December 2021, by borough.

Figure 3: Number of public slow-to-fast charge points (up to 22kW) by borough, 31 July 2025. Source: Zapmap



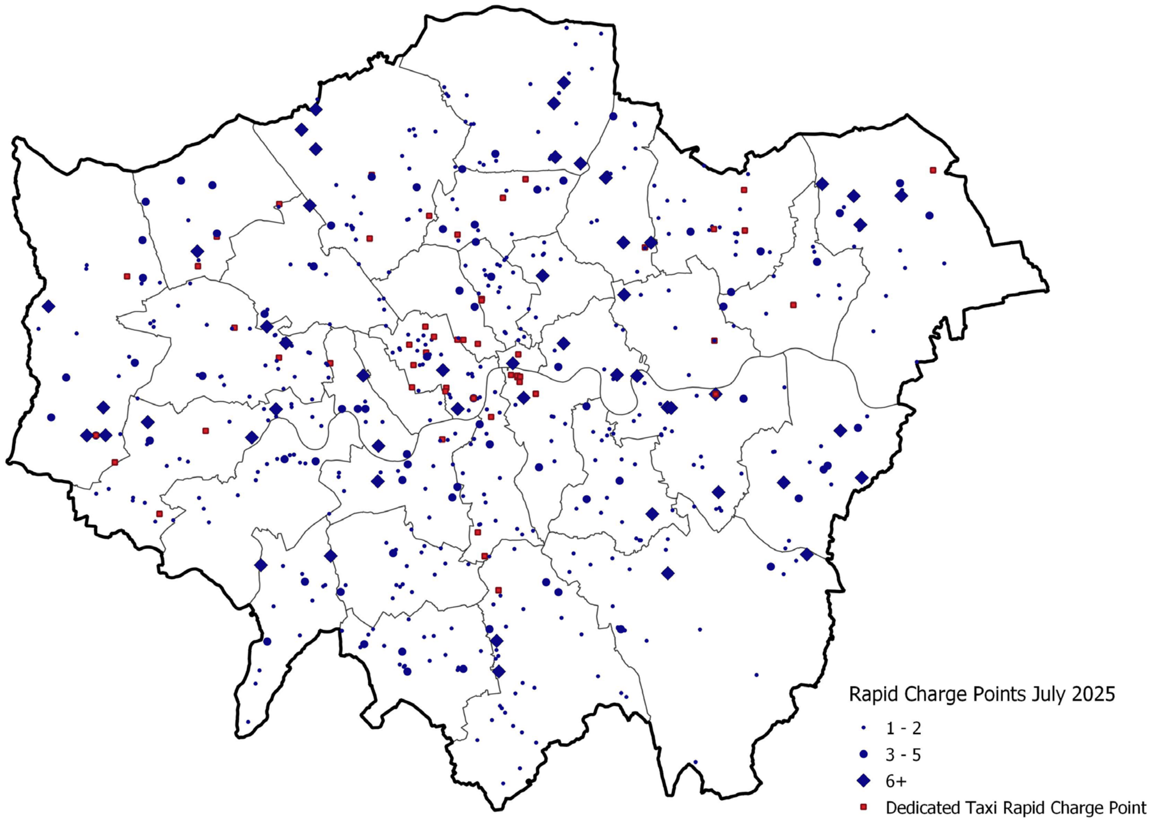
Rapid and ultra-rapid charge point delivery

We delivered 300 50kW rapid charge points in London between 2017 and 2020, creating a rapid charging network to support high mileage and professional drivers to make the switch to EVs and have more recently delivered a further 23 charging bays on our road network. Our rapid charge point delivery has demonstrated that there is a strong business case for investing in rapid charging infrastructure in London.

There are now over 1,400 rapid and ultra-rapid charge points in London. The most common location types are fuel forecourts (377 charge points), on-street (293 charge points), car parks including retail car parks (304 charge points) and supermarkets (210 devices). TfL and the boroughs have delivered the majority of on-street rapid charge points in parking bays on their road networks, with generally one or two rapid charge points in a location, while the private sector has focused its delivery on private land such as fuel forecourts and supermarket and other retail car parks.

Our strategy recognises the value of rapid charging hubs calling for at least one hub in each sub-region. We supported the opening of hub sites in Stratford International car park, Glass Yard in Woolwich and Baynard House car park in central London. Delivery of hub and cluster sites has been driven by the private sector and there are 55 hub sites and 74 cluster sites across all areas of London (as of 31 July 2025). Figure 4 shows the locations of rapid charge points across London, including taxi-dedicated charge points.

Figure 4: Rapid charge points (50kW and above) across London, including cluster and hub sites, 31 July 2025. Source: Zapmap



Public charge point utilisation

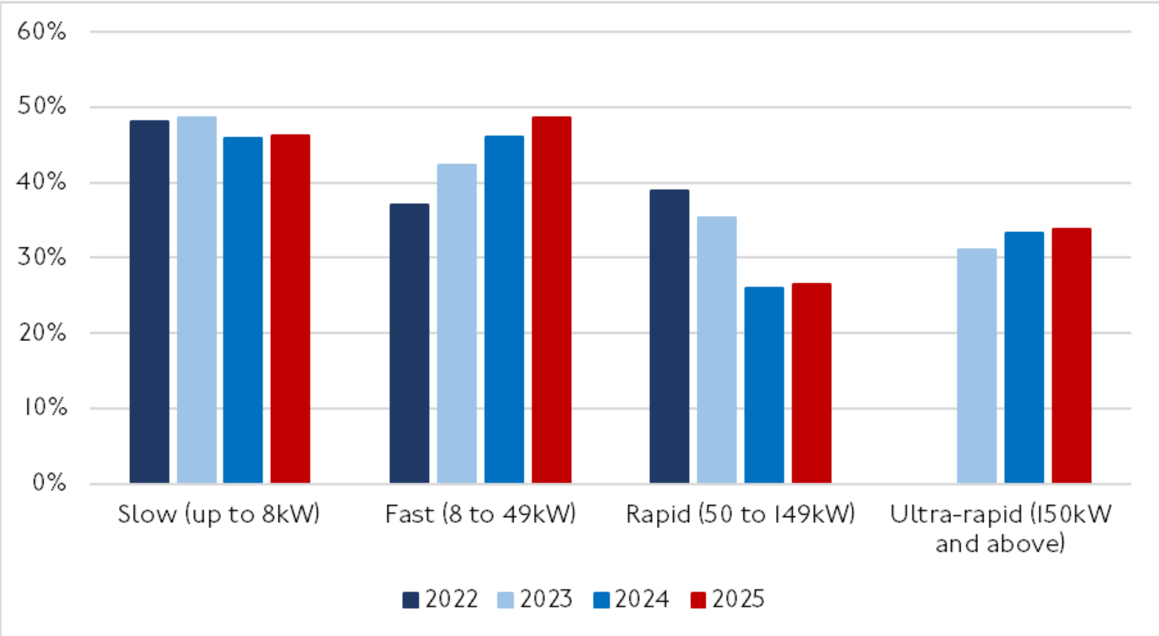
Analysis of Zapmap data, using active devices, indicates that demand for public charging has strengthened in London over the past four years.[9] This suggests that charge point delivery is consistently meeting demand for charging from an increasing number of EVs.

[9] Zapmap provides aggregated utilisation data for connected charge point devices. The proportion of connected devices has increased over time and is currently 85 per cent of all charge points across the UK. Active devices are connected devices that have had at least one charging event in the time period

Figure 5 shows the average percentage of time each type of charge point has a vehicle connected during March between 2022 and 2025. Slow charge points have had vehicles connected to them on average between 46 and 49 per cent of the time over the past four years, with vehicles plugged-in around 12 hours per day. Slow charge points are less likely to have dedicated EV parking, or time restrictions on parking bays, with drivers more likely to remain connected to the charge point when the vehicle has finished charging.

We have seen use of Fast charge points increase from 37 to 49 per cent over the past four years, increasing from nine to 11 hours per day. The analysis of Zapmap utilisation data indicates that the percentage of time Rapid charge points are connected to a vehicle has decreased, which is to be expected with competition from the increasing number of Ultra-rapid charge points, as drivers would be expected to choose higher speed charging and increasing numbers of vehicles capable of charging at higher speeds. Ultra-rapid charge points are now used around eight hours per day (34 per cent of the time).

Figure 5: Comparison of average time-based utilisation (percentage of use per 24-hour day) in March of each year for active devices, by charge point type for all London public charge points. Source: Zapmap



Across the UK (including London), [Zapmap and the Green Finance Institute]() found public charge points across all power categories were used between 11 and 14 per cent of the time, equivalent to around three hours per day, and that this had changed little over the past three years. We cannot compare our London utilisation figures against these given the differing time periods, and a differing definition of dynamic rather than charge points, but it would suggest higher use of public charge points in London than nationally.

3. Progress against commitments and ongoing challenges

Our strategy contains a series of commitments aimed at supporting key user groups to switch to EVs and organisations to install charging infrastructure. This section provides an update on progress in delivering the commitments for key user groups and identifies ongoing challenges we will need to address through new commitments and recommendations. A full list of the commitments in our strategy is included in Appendix B.

Updating London's public EV infrastructure forecasts

Our modelling forecasts give a scale of how much infrastructure could be needed in London and use scenarios to cater for different trajectories of EV sales and charging behaviours. However, our estimates are based on industry data and insights, and a degree of uncertainty remains. As they need to be frequently updated, we have committed to updating them every two to three years. It is important to recognise that they are projections and should not be treated as targets.

Given the impacts of wider policy changes, and technology trends, which influence how quickly EV registrations increase, and charge point utilisation, we will continue to update our forecasting based on new trends in vehicle uptake, charging behaviour and technology, with a new forecast update in the next two years.

Updating London's EV infrastructure model

We developed our London EV infrastructure model in 2019, guided by the Mayor's EV Infrastructure Taskforce, to give a sense of the scale of charging infrastructure that London would need by 2025, based on a range of different demand scenarios. The model was updated in 2021, building on our improved understanding of how the market could grow and extending forecasts to 2030. We have now updated our model again in 2025. The scenarios we use are:

- Future EV sales based on a growth curve: a low sales scenario where EV growth is initially slower, reflecting factors that influence vehicle sales decisions, such as uncertainty around government policy, vehicle availability and access to charging infrastructure, and then speeds up by 2030; and a high sales scenario where EV growth accelerates faster
- Preferred charging behaviour – a 'rapids' scenario, where drivers prefer to use rapid or ultra-rapid charging for most of their public charging; and a 'residential-based' scenario where drivers are more likely to use slow on-street public charge points near to their home to charge, with some rapid top-up charging.

EV sales forecasts
We use two scenarios to forecast how many EVs will be registered in London in the future, based on assumptions around EV sales. Both scenarios use the Government's zero-emission vehicle mandate requirements for 90 per cent of new cars and 80 per cent of new vans sold to be zero emission by 2030. The 'low sales' scenario assumes that EV sales will be slow, from a base of around five per cent of new cars and vans in 2020, increasing up to 30 per cent in 2025 and 90 per cent in 2030. The 'high sales' scenario assumes that EV uptake accelerates to make up 80 per cent of new car and van sales in 2025, and then more slowly increases to more than 95 per cent of new car and van sales by 2030.

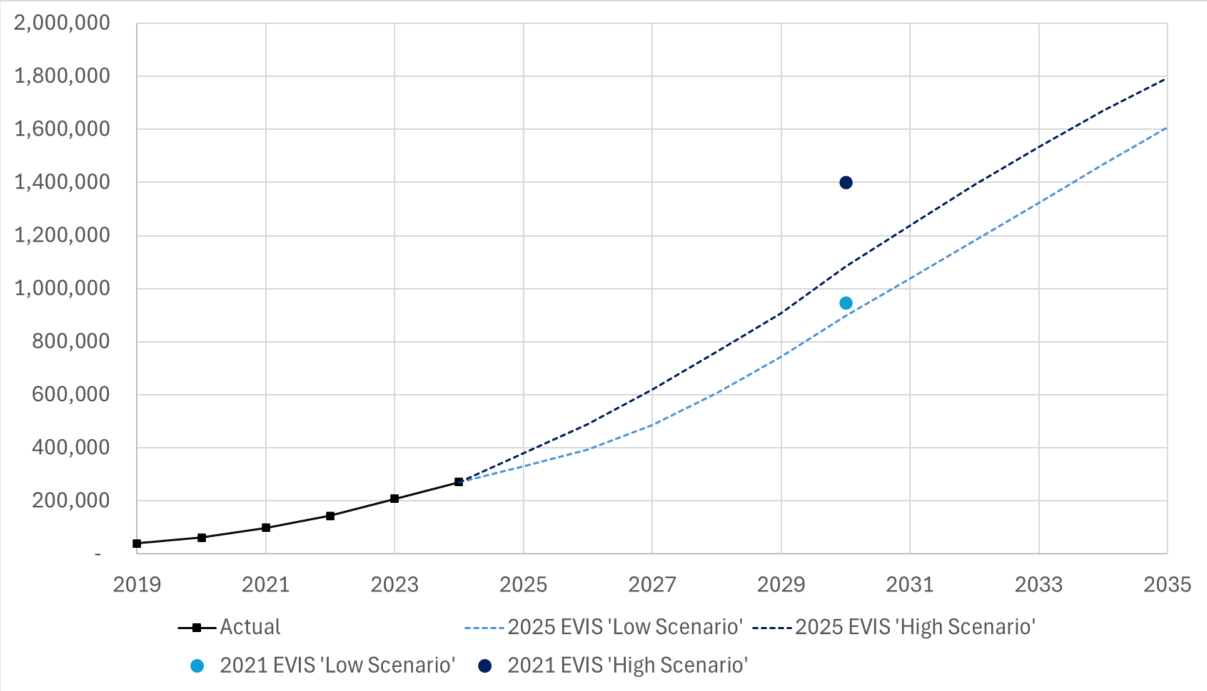
In 2024, 31 per cent of new car and van sales were plug-in vehicles. There were 221,687 plug-in cars and vans registered in London as of December 2024. This means EV registrations have grown in line with the lower end of our scenario forecasts in the 2021 model and this has been reflected in the new baseline for our 2025 model.

Given this revised baseline, the updated forecasts suggest there would be fewer EVs registered in London in 2030 than we had forecast, as set out in table 2. The expected growth curve in EV registrations is pushed back, so that 2035 numbers are similar to our earlier 2030 forecast, and the range between the two scenarios becomes narrower, as set out in figure 6.

Table 2: Number and percentage of EV cars and vans registered in London (2021 and 2025 model comparison), reflecting low sales and high sales scenarios

Year	2021 model forecast	Percentage of total vehicles in London (cars and vans) (%)	2025 model forecast	Percentage of total vehicles in London (cars and vans) (%)
December 2024	221,687	8		
2025	300,000 - 600,000	9 - 21		
2030	946,000 - 1,400,000	34 - 49	860,000 - 1,049,000	29 - 36
2035			1,562,000 - 1,752,000	53 - 59

Figure 6: New EV sales growth scenarios, showing EVs registered in London, with dots comparing 2021 model 'high sales' scenario and 'low sales' scenario figures in 2030.



Vehicle mileage

We updated our assumptions on average vehicle distance travelled by vehicle type (including all fuel types) to reflect the Government's Transport Analysis Guidance highway assignment modelling, and our own strategic transport models including validating against vehicle kilometres identified through new camera data and other sources. The 2021 data, shown in table 3, used information from a survey of taxi drivers and from private hire operators to determine average annual distance travelled. These numbers have been refined for the 2025 update. This change to our model is not reflective of any change in the actual distance driven by taxi or private hire drivers in London, but rather is the result of finding a more accurate source of input data, for the average annual distance travelled across all fuel types within each fleet. These numbers are indicative and will remain subject to review.

Charging infrastructure estimates to 2035

Our modelling assumes drivers will choose to use rapid and ultra-rapid charging similar to current petrol station refuelling behaviour. This aligns with our principles of supporting key user groups who typically do higher mileages, and who are more likely to need higher-powered top-up charging. We include a substantial proportion of slow and fast charging to accommodate the needs of lower mileage users or those who are more price sensitive. We have increased the proportion of slower charging in in the 2025 model, based on our taxi and private hire driver survey, acknowledging that many high mileage drivers will use slow on-street charge points overnight near to home. This has resulted in the number of slow and fast charge points being forecast higher than in the previous iteration.

Table 3: Comparison of average annual distance travelled by vehicle type (including all fuel types) between the 2021 and 2025 models[10]

Vehicle type	2021 model: average distance travelled (km/year)	2025 model: average distance travelled (km/year)
Cars	7,500	10,600
Vans	15,000	21,700
Taxis	45,000	32,000
PHVs	60,000	35,000
Motorcycles	5,000	7,700

We have updated the estimated average utilisation for each charge point type based on London utilisation data. We have increased average (time-based) utilisation for slow charge points to 50 per cent, or 12 hours per day, recognising that vehicles are likely to remain connected to the charge point, even after charging has completed. We have decreased the estimated utilisation of rapid and ultra-rapid charge points to better reflect current utilisation, assuming charge points are in use 25 per cent of the time, or six hours per day. This broadly reflects observed utilisation in and outside of London.

As set out in table 4, the updated forecasts suggest that London will require a similar number of slow and fast charge points and a slightly smaller number of higher-powered charge points in 2030, reflecting changes to our assumptions on the vehicle fleet in London, vehicle mileage and energy utilisation. Our updated modelling also provides estimates for 2035, forecasting that London will require between 69,000 and 79,000 public charge points, of which between 3,800 and 4,300 would need to be higher-powered.

[10] These numbers are indicative. The change between the 2021 and 2025 model inputs reflects changes in data sources rather than any change in actual driver behaviour.

Vehicle distances covered are a determinant of the need for recharging events and the number of EV charge points required. Annual distance travelled by London drivers outside London is assumed to be offset by the distance travelled within London by non-London registered vehicles

Table 4: Comparison of London's EV infrastructure projections to 2030 and 2035 between the 2021 and 2025 models

Year	2021 model: slow and fast	2021 model: rapid (100kW)	2021 model: all charge points	2025 new forecast: slow and fast	2025 forecast: rapid (101kW in 2030, 125kW in 2035)	2025 new forecast: all charge points
2025	18,500 – 34,500	1,600 – 2,600	20,000 – 37,000			
2030	40,000 – 55,000	3,000 – 3,900	43,000 – 60,000	40,200 – 47,500	3,070 – 3,500	43,000 – 51,000
2035				64,700 – 74,600	3,800 – 4,300	69,000 – 79,000

It is important to note the difference between the theoretical, modelled number of charge points London could require and the impact of location and other factors that drive delivery. Charge point operators, including those with public sector contracts, will be delivering infrastructure ahead of need, to provide reassurance to drivers, and in areas where they estimate use will increase in the future. We will continue to monitor the distribution of infrastructure to identify any gaps in delivery.

Supporting boroughs with granular-level forecasts

Our modelling provides forecasts for charging infrastructure for Greater London. With EV uptake likely to grow unevenly across the capital, a better local level understanding of EV charging needs is needed to improve planning, especially of slow and fast charging. The commitment to have more granular, borough-level analysis will require a richer understanding of how the local context is likely to impact charging demand. Factors to consider include demographics and household characteristics, on-street and off-street parking provision, local travel behaviour and daily travel into and out of boroughs.

We know that access to data remains a challenge for borough officers and we will share data sources at the granular borough level that may be helpful, such as our commercial fleets dashboard. We will also identify whether we can refine our modelling with more granular inputs, to better support boroughs in understanding their future EV infrastructure needs.

Borough officers already have access to London's charge point analysis dashboard, developed by the London Office of Technology and Innovation, the GLA and London Councils to inform the strategic deployment of new infrastructure. The tool has been updated to include more historic data, trends and analysis, walking time to charge points, electrical substation capacity and additional contextual layers, including the number of cars and percentage of households with off-street parking in an area.[ll]

Borough officers can also use the National EV Infrastructure and Strategy (NEVIS) insights toolkit, delivered by Cenex, to identify current vehicle registrations, charge points, demographics, future projections for EV uptake and forecasts for public charge point (connectors) at a local authority level.

UK Power Network's ChargePoint Navigator is a free tool for local authorities in the UK Power Networks licence area, using data from Field Dynamics, Cenex and Zapmap, to help with site selection. It includes factors such as EV forecasts, off-street parking, network cabling, pavement widths and charging requirements. This does not cover the London boroughs of Ealing, Hillingdon and Hounslow, which are under a different distribution network operator, Scottish and Southern Electricity Networks (SSEN).

Unlocking land for EV charging

The strategy identified access to land as one of the biggest barriers to the rollout of charging infrastructure in London. The keystone commitment set out that, from 2022, we would unlock GLA Group land to repurpose it for EV charging, leading the way for London boroughs to unlock their land, ensuring that sufficient levels of charging can be achieved.

Charge point operators have reiterated to us, in our London Charge Point Operators Forum, that access to land remains a barrier to delivering rapid and ultra-rapid charge points, with competition from other uses. They also believe there is a strong case for investment in London, as the demand for existing infrastructure remains high. We will, therefore, keep our keystone commitment to unlock GLA Group land for EV charging, expanding it to cover public sector land.

We will continue to deliver rapid and ultra-rapid charge points and hubs on our land with a focus on meeting the needs of high mileage, essential road users and delivering accessible and inclusive infrastructure. We will continue to work with the GLA Group and London boroughs to identify suitable land and encourage sites, including parking bays on borough roads, to be developed for rapid charging. We expect that delivery on both GLA Group land and borough land will enable the public sector to deliver around one quarter of London's rapid charging needs.

[ll] New functionality & features of London's EV charge point dashboard, London Office of Technology and Innovation, 2024

Our rapid charging delivery

We have two main programmes for delivering new rapid charge points on our land:

- The EV Infrastructure Delivery (EVID) programme that focuses on delivering rapid or ultra-rapid charge points in parking bays on our road network

- The charging hubs joint venture partnership between TfL's property company Places for London, and the European ultra-rapid charging company Fastned

Our rapid charging delivery programmes complement each other, with both working to improve the number and distribution of rapid charge points across London. EVID focuses on using land concessions along strategic routes in the capital to make better use of smaller parcels of land. This will enable a network of rapid charge points for on-route charging across a wide geographic area. Building on this network, Places for London's joint venture targets larger pieces of land within our estate to deliver charging hubs, with ultra-rapid charge points capable of providing 400kW, and provides an additional long-term revenue stream for our organisation.

Because of the extra land space available, these hubs can focus on customer experience, providing industry-leading accessible bays and waiting areas as well as the option to host retail and rest spaces for professional drivers, including taxi, private hire vehicle and commercial vehicle drivers. Due to the nature of the London Underground network and our estate, hub sites will initially be focused north of the Thames.

EVID on-street rapid charge point delivery

The EVID programme seeks to deliver at least 100 rapid or ultra-rapid charging bays on the TfL road network, using minimal upfront investment. We have awarded four contracts since 2023, to charge point operators Zest and TotalEnergies Charging Solutions UK, with 28 charging bays now operational and further sites underway and planned.

As each batch of sites is put out to tender to charge point operators to install, operate and maintain rapid charge points, we have approached the market, and tailored contractual terms to make the EVID programme more attractive. The programme has no capital funding, which means that sites must be commercially viable and charge point operators need to balance the costs of connecting to power, power upgrades and any other enabling works against their expected revenue. There are also ongoing challenges with limited space at kerbsides for the required equipment. The newly installed rapid and ultra-rapid charge points are being well-used, showing that on-street rapid charge points continue to be an important part of London's charging network, alongside hub sites.

Places for London and Fastned charging hubs joint venture partnership

In December 2024, Places for London entered a landmark joint venture partnership with European charge point operator Fastned to develop a network of new ultra-rapid charging hubs across London. Both companies will jointly invest in developing charging hubs at an initial five sites within our estate, with the prospect of expanding the network by the end of the decade to 25 sites and the potential to increase this up to 65 sites in the future as opportunities in market demand come up. The partnership is an industry first, with Places for London owning 49 per cent of the joint venture, and Fastned owning the remaining 51 per cent, presenting a new public-private delivery model in the EV sector.

The partnership focuses on delivering hub sites with at least six ultra-rapid charging bays. Charge points will be capable of providing up to 400kW of power to vehicles, thereby providing up to 300 miles of range in as little as a 20-minute charge.

The hub sites will be industry-leading in terms of accessibility, customer experience and sustainability. All bays will be wheelchair accessible. The joint venture partnership will establish a minimum percentage of bays that meet accessibility standards for the built environment and charging infrastructure on each site to ensure that this is proportionate to the size of the hub. The sites will help create quality public spaces that are safe and welcoming to customers and their local communities by installing toilets, lighting and CCTV, and including greenery and public amenities such as benches and retail facilities on larger sites. The venture has also committed to contributing a proportion of its profits towards local community and climate funds. All hub sites will use 100 per cent certified renewable energy.

The partnership will start with five sites on our estate in the boroughs of Hillingdon (two sites), Ealing, Newham and Haringey, with a sixth site recently added in Tower Hamlets, which combined will provide more than 80 ultra-rapid charging bays. Construction at the first site, in Hatton Cross, started following the approval of planning permission in March this year and could be operational by early 2026.

The partnership also has the potential to support boroughs in providing more EV infrastructure, as it can adopt third-party land. If borough land meets certain financial and technical criteria, the joint venture can investigate acquiring a lease to deliver EV charging hubs. This could mitigate procurement risk, time and cost for boroughs and give them a long-term partnership approach to meet charge point demand in their area.

New rapid charging delivery and relet of existing rapid charge points

As set out in our Taxi and private hire action plan 2025, we are also planning to use £4.5m of Government funding to provide new rapid charge points in strategic locations where taxi drivers typically operate. The funding will be used for power connections and other enabling works so that we can deliver on-street sites that are not commercially possible through the EVID programme, or to deliver sites on borough roads or smaller locations on our estate that do not meet the threshold for the joint venture charging hubs programme.

We are looking at options to relet existing 50kW rapid charge points as these come to the end of their eight to 10-year contracts. Around half of these sites are on our land, with most of the remainder on borough land and a small number on private land. We will engage with the boroughs and private landowners on the future of the rapid charge points on their land and will look to relet the sites on our land.

Around 80 of these rapid charge points are only for use by taxis. We intend to relet the sites on our land as taxi-dedicated charge points and will encourage boroughs to do the same with sites on their land. However, some taxi-dedicated charge points have had consistently low use and it is possible we will need to review the access arrangement for these, in order for them to be commercially viable.

London borough delivery

The London boroughs are responsible for the delivery of most of London's public charging infrastructure, using their land to deliver charge points across a range of speeds to meet the needs of residents with off-street parking, businesses, visitors and others. We continue to work with London Councils, the organisation that represents the London boroughs, to provide resources and support to borough officers, using Local EV Infrastructure (LEVI) capability funding. This funding has enabled London Councils to establish a team of EV officers to support boroughs to access LEVI capital funding, procure charging infrastructure and undertake research to inform EV delivery.

We are also undertaking research, funded by the LEVI capability funding, to understand the key problems and issues experienced with EV infrastructure delivery that have been highlighted by London boroughs. The research will inform best practice solutions to improve the accessibility of EV infrastructure and charge point pricing, and provide charging solutions across footways and appropriate infrastructure for light commercial vehicles.

While boroughs continue to deliver charging infrastructure, they do face challenges, including pressure on local government finances. Boroughs must find a balance between providing charging infrastructure on roads, with increased initial and ongoing costs and the loss of parking bays, and providing infrastructure on footways, which has implications for other footway users.

Even with additional support provided through the LEVI capability funding, officer resource remains a challenge for some boroughs. In January 2024, we published a support pack to assist London borough officers in EV infrastructure strategy development and delivery. It brings together information, data and guidance from a range of sources including Energy Saving Trust (EST), Cenex, TfL, DfT, the NEVIS toolkit and repository and the London Charge Point Analysis Dashboard. We will update the support pack during 2025/26 with any new information to assist boroughs in delivering EV infrastructure.

To help local authorities procure EV infrastructure and maintenance and to make it easier for suppliers to bid for contracts, in December 2024, London Councils launched a new EV Infrastructure and Maintenance Dynamic Purchasing System (DPS). This system aims to make key performance indicators, customer service and pricing tariffs more consistent across London, and make it simpler for boroughs and charge point operators to tender. The DPS will run for a four-year period and is also available to local authorities and public sector organisations outside of London.

The LEVI capital funding is primarily focused on delivering low-powered on-street residential charge points and could deliver up to 20,000 new charge points by the end of the decade. Separate to their planned LEVI-funded delivery, a number of boroughs have also recently agreed contracts with charge point operators for a range of charge point types. We expect that this delivery, along with LEVI-funded delivery and other planned delivery, including rapid charging infrastructure, will provide London with the levels of public charge points we forecast are needed by 2030 and beyond.

Higher-powered charging in fuel forecourts

Fuel forecourts are already the location type with the greatest number of higher-powered charge points. TfL has purchased data from the Ordnance Survey and Zapmap which shows that there are 543 fuel forecourts and motorway services in London, 130 of which have higher-powered charge points. We are seeing increasing installation of higher-powered charge points in fuel forecourts. In September 2024, when we first received 'location type' data for higher-powered charge points from Zapmap, there were 107 fuel forecourts in London, with 301 charge points in total, compared with 127 fuel forecourts in July 2025 with 377 charge points. The number of fuel forecourts with three or more higher-powered charge points has also increased from 41 in September 2024 to 51 in July 2025, demonstrating the potential for fuel forecourts to become cluster or hub charging sites. There are three motorway services in Greater London, with 41 charge points between them. Figure 7 shows the potential to further increase higher-powered charging delivery across London if more fuel forecourts were to install infrastructure.

The Automated and Electric Vehicles Act 2018 includes powers for the government to regulate to ensure provision of public charge points at key strategic locations like motorway service areas and large fuel retailers, and a duty for it to consider making regulations if requested by an elected Mayor, to overcome range anxiety and support longer EV journeys. We will review the delivery of higher-powered charge points in fuel forecourts in London over the next year. We will ask the Government to introduce regulations to mandate the provision of charge points at large fuel retailers.

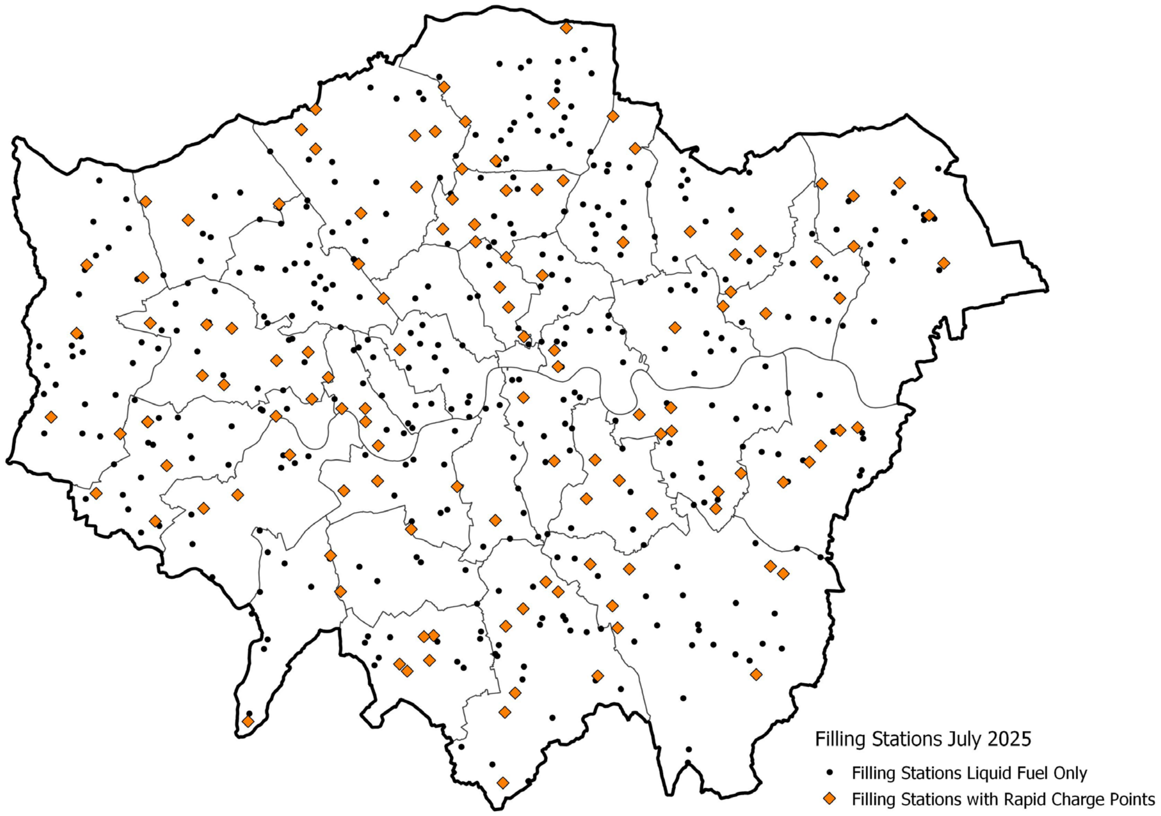
Supporting the EV charging industry

We set up the London Charge Point Operator Forum in May 2023, to create a way for charge point operators in London, representatives from the GLA and our own organisation, and London Councils to collaborate. The forum provides a platform to discuss key issues facing charge point operators in London, as well as the barriers these organisations face in their work to increase the number of public charge points across all London boroughs. The GLA will continue to run the forum on a quarterly basis, to enable ongoing engagement between charge point operators and the public sector in London.

Working with energy distributors

Our 2021 strategy recognises that the cost and complexity of energy grid upgrades remain key barriers and continue to make many sites commercially unviable. We welcome the actions set out in the Government's policy paper on improving the grid connection process for EV charging infrastructure.

Figure 7: Rapid and ultra-rapid charge points in fuel forecourts in Greater London, July 2025. Source: Zapmap and Ordnance Survey



We responded to Ofgem's connections end-to-end review of the regulatory framework in February 2025. We provided evidence of our experience with installing rapid charge points on our road network, including issues we have encountered across many sites where initial assessment of the power available and cost to accessing that power, or upgrading the power to enable the charge point to be delivered, has changed before delivery, making sites commercially unviable. We continue to engage with Ofgem regularly on the next steps of the connections end-to-end review, as well as engaging the Department for Energy Security and Net Zero (DESNZ), the National Energy System Operator (NESO) and the National Infrastructure and Service Transformation Authority (NISTA) on further connection reform proposals for strategic demand.

We will collate a pipeline of projects related to electrification, including our own and London borough public charging infrastructure delivery and emergency services and public sector fleet electrification, and ensure this is properly reflected in the distribution network operators' future energy scenarios and network planning. We will call on the Government to ensure a strategic overview of access to power and charge points connections across the key players in the regulation and planning of the UK's energy sector (NESO, Ofgem, DESNZ and NISTA) in order to provide long-term investment, improve access to the grid and deliver the power required to support the delivery of charge points.

The GLA takes a whole system approach to ensuring that our current energy infrastructure is resilient, and that the growth required to meet the Mayor's net-zero carbon ambition is sustainable. Evidence to support progression of net zero projects, including EV charge points, are included in local area energy planning, which inform borough Local Plans and influence utilities' network investment plans. The GLA has also funded four sub-regional Local Area Energy Plans (LEAP) across London in partnership with London Councils, London boroughs, government agencies, industry and regulators. It is intended that the London boroughs will then undertake borough-wide LEAPs. To guide boroughs in planning their charge point delivery, the London EV charge point dashboard now includes an electricity substation capacity layer, based on published data from London's distribution network operators, UK Power Networks and Scottish and Southern Electricity Networks, about substation capacity and utilisation rates.

Improving consumer experience

Our Travel Demand Survey in 2024 showed that most households in London, including 93 per cent in inner London and 64 per cent in outer London, do not have access to off-street parking in a driveway or garage. So, as the number of EVs on the road increases, more drivers will rely on public charging infrastructure for either all or some of their charging needs.

Our 2021 strategy recognises that many drivers are unaware of the location of infrastructure and that it is important for them to be able to easily locate charge points. We welcome the Public Charge Point Regulation's requirements to open up charge point data and ensure a reliable charging network. Together, these requirements will make it easier for drivers to locate public charge points and identify if they are available, improving the accuracy of existing mapping services, such as Zapmap.

Reliable public charging

Zapmap's Annual Charging Insights Report 2024 showed that while EV drivers are generally satisfied with the overall experience of using public charge points and think that public charging has improved, drivers say their decision to switch to EVs is still affected by concerns around relying on public charging infrastructure. A report by EVA England revealed that 44 per cent of EV drivers said that being unable to charge at home was one of the greatest barriers holding them back from switching to EVs. Amongst drivers of petrol, diesel and hybrid vehicles, 41 per cent cited concerns about the availability of public charge points and 44 per cent cited charging infrastructure being difficult to use as stopping them from switching to an EV.

Our strategy identifies that the maintenance and reliability of infrastructure are key to ensuring users' confidence in the network. We welcome the Public Charge Point Regulation's reliability requirement, which means that from November 2024 public rapid charge points must be available 99 per cent of the time, as an average across a charge point operator's rapid network.

Our EVID contracts mandate a minimum of 97 per cent reliability for rapid charge points within each contract, and the charging hubs joint venture will require 97 per cent reliability for individual charge points and at least 99 per cent at each charging hub. This is consistent with the Public Charge Point Regulations, which require rapid charge points to be 99 per cent reliable as an average across each charge point operator's entire rapid network over the calendar year. Zapmap's 2024 driver survey showed our joint venture partner, Fastned, to be well-recognised for the reliability of its network, ranking first in the medium-rapid/ ultra-rapid network category.

London Councils has suggested a 97 per cent reliability requirement for charging infrastructure for contracts issued through its new dynamic purchasing system for the procurement of EV infrastructure and maintenance, although the actual terms would need to be agreed between the local authority and charge point operators.

Affordable public charging

Our strategy has social inclusion as one of its themes, understanding that charging infrastructure should be affordable to use and accessible to all. It recognises that the cost of charging needs to be consistent and fair for all users, including people without access to home charging who rely on more expensive public charge points, which may also be less convenient for them to access. While the price to charge can vary across types of charge points and networks, the average price of charging has increased since our strategy was published, although this increase has slowed more recently.

Zapmap's index of the average weighted price to charge shows the pay-as-you-go price in February 2025 was 52p/kWh on slow and fast charge points and 80p/kWh for rapid and ultra-rapid charge points, compared with around 25p/kWh for domestic charging or as low as 8p/kWh with off-peak domestic tariffs. There are charge point operators who provide cheaper charging or special deals for drivers, but public charging remains more expensive than home charging on a pence per kWh basis, not accounting for home charge point installation and maintenance costs.

Public charging is subject to 20 per cent VAT, compared with five per cent for domestic electricity. Some three quarters of EV drivers see high public charging prices as a major barrier to wider EV uptake. We endorse EVA England's recommendation that VAT is reduced on public charging to bring it in line with VAT on domestic energy supply. This should be coupled with formal commitments from the charge point industry that subsequent cost savings will be passed on to consumers. We will also continue to monitor the impact of business rates for charging bays in leased car parks.

We are undertaking LEVI-funded research into the cost of public EV charging to better understand how the price of public charging is affected by the multiple costs and levies which make up the cost base of charge point operators. We want to understand how charge point operators purchase their energy and whether the effect of scale and capitalisation, which affects the cost of debt, could disadvantage smaller organisations. We also want to understand the impact on various user groups so we can develop the evidence to show the inequity in how EV drivers pay for energy. The research aims to identify any potential solutions which could lessen the higher cost of public charging compared with domestic EV tariffs for those with dedicated parking. We will share the findings of this research with the London boroughs and other key stakeholders.

Supporting disabled and older drivers

Our strategy includes accessibility and social inclusion as key principles for public charging. To enable all drivers to be able to switch to an EV, public charge points must be inclusive and accessible to everyone, including the 13 per cent of Londoners who are disabled and 12 per cent of Londoners who are older.[12]

PAS1899 accessible charging specification

PAS1899 was published in 2022 by the British Standards Institution to encourage the building of inclusive charging infrastructure in the UK. It covers:

- The physical aspects of the environment surrounding fixed charge points, such as kerb height and ground surface
- The location, placement and spacing of charge points within the streetscape and public realm, as well as the information, signals and indicators provided to users
- The factors considered in the design and specification of accessible charge points, such as the height of charge points, cables and cable management systems, bollard spacing, colours used on screens, weight and force, and ease of use of the equipment.

PAS1899 is a voluntary standard for charge point operators, landowners and land administrators. But local authorities and transport authorities, like us, have the power to require the standard is used when procuring charge points on public land. We wait to see whether the Planning and Infrastructure Bill will include requirements for charge point operators to ensure that charge points comply with minimum specifications for displays, bay size and the height and weight of the charging cable, an amendment supported by advocacy groups including Motability Foundation, New Automotive, EVA England and the REA.

Our infrastructure procurement includes an inclusive design module, referencing the PAS1899 specification, to assess the ability of charge point operators to meet inclusive design standards for sites tendered through the delivery programme in 2022 and 2024. We have been working with our suppliers Zest and TotalEnergies

[12] Nomis official census and labour market statistics, ONS, 2021

Charging Solutions UK to ensure our public charge point designs are as inclusive as possible, where parking bay and road space allows. Places for London, with its partner Fastned, will aim to deliver PAS1899-compliant accessible bays where possible in their hub sites and will make every bay wheelchair-accessible. At least one bay at every hub or eight per cent of bays, where possible, will be fully accessible. We anticipate that updates to the PAS1899 specification, taking into account feedback from charge point installers, local authorities and disabled drivers, will mean that we are able to deliver more infrastructure that meets the specification in future.

Addressing challenges with delivering accessible infrastructure

We recognise that delivering accessible charging infrastructure can be challenging for our delivery partners and for the London boroughs, particularly on-street with limited space on roads and footways. There remains some uncertainty around who should bear the cost of ground works, such as dropped kerbs, to make charging bays accessible to wheelchair users and others, which can be challenging for local authorities without the capital funding available to cover this.

OZEV and Motability Foundation co-sponsored the PAS1899 technical working group, which undertook a two-year review of the specification, and will recommend updates based on delivery experience to improve the number of charge points that can meet and comply with the specification.

As the PAS1899 specification continues to evolve, we will call for the Government to identify and finance measures to encourage or mandate compliance, from the 2026/27 financial year. Further Government funding could support local and transport authorities in making physical changes to charging infrastructure to enable greater compliance with the standard. For example, by helping to adapt parking bays, installing dropped kerbs and undertaking ground works to make surfaces level.

Accessible charging research and engagement

We regularly engage with stakeholders representing disabled and older people in London, to ensure we fully understand their specific requirements, as well as how disabled and older EV drivers use public charge points. In June 2024, we held a workshop with disabled EV drivers, together with London Councils, the GLA, Motability Foundation, OZEV and our infrastructure delivery teams to discuss challenges that teams experience when delivering infrastructure that complies with PAS1899 and to come up with ways in which these could be solved.

We are also undertaking LEVI-funded research which will be completed by Spring 2026, to verify what information disabled EV users need to help them understand if a public charge point meets their needs. This research will identify key accessibility variables that will be applied to a sample (approximately 10 per cent) of our public electric vehicle charge points to assess how accessible they are for all users. The research will also undertake a series of surveys, workshops and in-depth interviews with disabled and older people and key stakeholders to explore how we can categorise the accessibility of charge points for different user profiles and how this information is best shared to help drivers understand if a charge point meets their needs.

We will share our research with London boroughs, and other key stakeholders, including Motability Foundation and OZEV, and collaborate with them to apply our findings to work they are doing to improve the accessibility of public charge point infrastructure.

Supporting commercial vehicle electrification

Light goods vehicles and vans

Our strategy identifies that light goods vehicles (LGVs) with limited access to off-street parking will be dependent on public charging for slow-to-fast overnight charging in the short term, but that LGV users will look more towards rapid charging in the long term[13]. In line with our strategy commitment, we published a commercial fleets dashboard in 2023 to help local authorities and other stakeholders involved in delivering charging infrastructure identify locations in London with a higher need for public charging for vans. The dashboard uses a heatmap to show which areas will need more rapid charging, as well as overnight slow-to-fast charging for light commercial vehicles.

We recognise that more work is needed to understand the travel behaviours, location and size of these fleets to establish user requirements and to ensure infrastructure delivery is prioritised to support this group to switch to EVs. In 2023, we engaged with a range of stakeholders, including freight and fleet operators and trade and industry bodies, to better understand the barriers the industry faces in decarbonising its fleets, with a focus on LGVs. We found:

- Most vehicles were kept in depots overnight, especially for organisations with larger fleets, and could be expected to charge on-site
- Many smaller fleets would rely on public or home charging
- Organisations would prefer to make use of rapid charging on their way to or at a destination

We undertook further engagement in 2024, with respondents identifying bay dimensions, cable length and speed of charging as the most important features for drivers looking to charge LGVs at public charge points. We will develop guidance for London boroughs and our own delivery teams for installing public charging infrastructure that caters to these vehicles' dimensions, manoeuvrability and operational requirements. We will also look at charging demand to identify the types of areas that will require charge points to better meet the needs of LGVs across London now and in the future, which will complement our commercial fleets database.

[13] The majority of LGVs will be vans. Other types of LGV include pick up, flatbed and tipper trucks (under 3.5 tonnes GVW) and chassis cabs which are used to create special purpose vehicles such as ambulances

Organisations identified the following barriers to switching to EVs which included the high cost of vehicles, the high cost of using public charging and costs or delays associated with grid connections. Other barriers included vehicle supply constraints, the incompatibility of current vehicles with operational needs and drivers' lack of knowledge about EVs and charging.

Electric vans make up three per cent of all vans registered in London and there are only a small number of electric HGVs. While there is an MTS objective to reduce the number of HGVs and vans entering central London during the weekday morning peak, we will continue to encourage those trips which cannot switch to alternative modes or time to be done in the cleanest vehicles possible. We welcome the Government's extension of the plug-in van and truck grants into 2027, but call for the Government to maintain the level of the grants and look to extend them beyond 2027. We expect there will be an increase in the number of electric van models entering the market, and more grants for workplace charging infrastructure, to further encourage operators to switch to zero-emission vehicles.

Heavy goods vehicles

Our strategy focused on car and van use of public EV charge points, and did not include HGVs, buses or coaches. Although not included in the ZEV mandate, the Government confirmed in 2021 that all new HGVs will need to be zero-emission by 2040, and those weighing up to 26t will be included from 2035. More electric HGV models are now becoming available, so we need to consider what public infrastructure these vehicles might require.

We worked closely with freight and fleet operators in 2024 to understand in more detail the needs of HGV drivers and the barriers they face to switching to zero-emission vehicles. Responses to our survey showed that HGVs were driving on average 150 miles per day which is further than the current average range of 137 miles for an electric HGV. Operators also confirmed they would need to rely on public charging infrastructure, given the cost and anticipated difficulties of connecting depots to power grids.

Freight operators with HGVs identified several barriers to switching to zero-emission vehicles, including long charging times and disruption to operational schedules. This could be addressed by aligning charging times with drivers' mandated rest stops and maximising charging overnight or outside of drivers' shifts. Cost was also a barrier, with electric HGVs typically twice the purchase cost of diesel equivalents, the expense of installing infrastructure and the ongoing charging costs. New technologies, for example, retrofitting diesel refuse trucks, could help to reduce some of these upfront costs. Operators noted the current lack of charging stations in strategic locations, making long-distance and high-demand operations impractical, along with the limited range of electric HGVs currently on the market.

The Zero Emission HGV and Infrastructure Demonstrator programme, together with Connected Places Catapult, the DfT and Innovate UK, is deploying large zero-emission HGVs (weighing more than 40t) with supporting infrastructure, to enable freight hauliers to see examples of zero-emission HGVs working in real-world environments. The programme is supported by standards for publicly accessible charging sites for battery electric HGVs, workshops for zero-emission HGVs and the design and implementation of hydrogen refuelling stations. In March 2025, it confirmed the locations for a new network of 54 electric HGV charging hubs across the UK, including two sites just outside London.

To support the deployment of electric HGVs, we will make sure appropriate data is available to identify locations suitable for charge point provision that align with strategic freight routes, driver rest stops and service stations, by the end of this year. This may include working collaboratively with industry partners to incorporate other data and existing tools to map suitable sites for charge point developments, as well as data and tools provided by TfL, where appropriate.

Coaches

Despite the proliferation of electric buses used in public transport, there are only a handful of electric coaches operating in the UK. The Government has yet to confirm the date when the sale of new non-zero emission coaches will be phased out in the UK.

In 2024, we surveyed coach operators and met with the Confederation of Passenger Transport to better understand their plans to decarbonise their fleet. Coach operators indicated their average daily mileage was 175 miles, within the current average electric coach range of 200 miles. The lack of electric coach models available and their high purchase costs were the main reasons coach operators cited for not switching from diesel vehicles, along with concerns about grid connections to install charging infrastructure in depots, which are often located in more rural locations. Operators with fleets of more than 10 vehicles were more likely to be operating, or considering switching to, electric coaches. Operators also indicated that they would need appropriate public charging infrastructure in central London.

To understand the coach sector's charging requirements and encourage operators to begin exploring trials, we will establish a Coach Operators Forum during 2025/26. We will have representatives from major coach operators, industry, Victoria Coach Station and London boroughs. This forum will help operators to identify potential sites for suitable charging infrastructure in London, including at or near to larger coach stations, to increase market confidence as new electric coach models become more widely available.

Innovative and experimental charging solutions

We recognise that there is significant innovation taking place, with technologies evolving at a rapid pace. We also understand that new creative solutions could play a role in supporting goods or servicing movements, especially by smaller and lighter vehicle modes such as electric cargo cycles and quadricycles. We are also aware of parallel trends relevant to EV charging, such as connectivity, automation, alternative approaches to charging (such as battery swapping), and new vehicle form factors such as e-scooters and microcars. London would greatly benefit from new and innovative ideas for supplying power to these vehicles where needed, and we will explore the potential for innovation which could be included in future iterations of our EV infrastructure strategy.

Supporting emergency services and public sector fleet vehicles

Our strategy recognised the challenges that the emergency services face in electrifying their fleets, including the many types and sizes of specialist vehicles across the fleets, specific operational constraints (such as operating 24 hours a day), and the wide geographic spread of depots. It also recognised that emergency services and public sector fleets would not be able to accommodate all their EV charging requirements within their own estates due to space and grid capacity constraints and would likely need to use public charging infrastructure or shared infrastructure with other public sector or private fleets.

New options for electric ambulances and fire engines have become available and are being trialled in London, and electric refuse vehicles have also started to operate in some London boroughs[14]. The emergency services, NHS trusts, London boroughs and other public sector fleets, including our own, continue to work towards electrification to meet Mayoral and government targets. Fleets continue to face challenges with accessing adequate power, including connection costs, particularly where they require high-powered infrastructure. Another challenge is resilience, with fleets looking to identify back-up options should they be unable to charge, in case of localised power cuts, for example.

In our strategy, we committed to working with emergency services and public fleets (like those used by boroughs) through the GLA Fleet and Friends Forum to support their transition to electric vehicles. This forum's latest focus is on opportunities for sharing infrastructure.

Places for London have been working with emergency services and other fleets in the public sector, discussing options for fleets to use EV charging hubs on their land, although it is not considered commercially viable to provide dedicated charging bays. The individual emergency services have presented at the London Charge Point Operators Forum, giving charge point operators an understanding of their charging needs and developing relationships with the industry.

We are undertaking a programme for our operational support fleet of approximately 1,000 vehicles to become a zero-emission fleet. Initial funding and resources for the first phase of this work have been confirmed, and we have installed 11 charge points at Plumstead depot as a pilot project, supporting over 30 zero-emission vans.

We are currently identifying further priority sites and options to phase delivery over several years. We want to understand the benefits of potentially sharing infrastructure with other public sector bodies and businesses who might offer

[14] London boroughs operating electric refuse vehicles at the time of writing include City of London, Enfield, Islington, Kingston and Westminster

solutions which match our vehicles' operational patterns. Public charging of vehicles in our fleet in strategic locations could supplement our own infrastructure.

Sharing charge points and infrastructure

Sharing charge points and refuelling infrastructure in private locations such as depots enables charge point owners to get the most out of their facilities by allowing other commercial or public sector fleets to use their charge points. This can reduce costs and improve the business case for fleet electrification for both the owner of the infrastructure and the vehicle fleet accessing the charge points. Our strategy recognised that ad hoc or shared access to rapid charging infrastructure should be a priority for emergency services and public sector fleets to support their transition to EVs. This is particularly important for ambulances, fire engines and other larger commercial vehicles, which need access to charging bays designed for larger vehicles. Sharing charging facilities can also help build resilience in fleets, particularly public sector and emergency vehicle fleets, for situations where power may temporarily not be available at a depot.

Our strategy also highlighted the need for us to further support and encourage the sharing of private charging infrastructure, with peer-to-peer sharing having the potential to complement access to public charging.

London has 76 bus garages, with a small number owned by us and the remaining owned by London boroughs, bus operators and other landowners. Bus garages will continue to have charging infrastructure installed as bus routes reaching the end of their contracts are retendered as zero-emission routes[15]. Not all bus garages will be suitable for sharing charging infrastructure, with space and power constraints, but there is potential for sharing some locations with other public and private fleets when buses are out of garages, providing an additional revenue stream for bus operators. Our strategy included a commitment to support the delivery of shared charging facilities between third parties, benefiting key groups. Without funding, we have not been able to progress any schemes in London. However, we encourage bus operators to consider whether they could share use of existing charge points in bus garages, as First Bus is already doing.

Earlier this year, London was one of three cities to be awarded funding from C40 Cities for technical assistance to support the charging needs of high-mileage vehicles.[16] This research, which commenced in summer 2025, is investigating the feasibility of shared charging infrastructure and will run pilot schemes in 2026 to enable high-mileage users, including emergency services and other public sector fleet and servicing vehicles, to collaborate with other organisations, including the private sector, to increase the use of existing charge points. The objective of the

---

[15] From September 2021, all new buses entering the London fleet must be zero emission
[16] C40 Cities is a global network of nearly 100 mayors of the world's leading cities that are united in action to confront the climate crisis

project is to find a replicable shared charging model that can be used by others across London, the UK and globally.

We will encourage opportunities for organisations to share existing and planned charge points as well as refuelling infrastructure in depots and garages, with other commercial fleet users. We will do this by providing guidance about areas of high demand for commercial vehicle charging, and best practice for shared charging more generally, using our role as an integrated transport authority to match opportunities with fleet users looking for charge points. We will also look to include any charge points installed at our own depots for our own service vehicles, where it is safe and secure to do so and does not impact operational performance.

Supporting the taxi trade and private hire industry

Taxis and private hire vehicles are a key user group that supports essential journeys for those with limited mobility and for trips that cannot be made by more sustainable modes. Due to their frequent journeys and high mileage, these drivers are likely to need access to top up and rapid on-the-go charging. According to our licensing data, in August 2025, 64 per cent of London-licensed taxis and 59 per cent of London-licensed private hire vehicles were zero-emission capable or fully electric.[17] As more taxis and private hire vehicle drivers switch to zero-emission capable and zero-emission vehicles, we will need to ensure that they have access to an extensive and reliable network of public charge points across the capital. Our new Taxi and private hire action plan emphasises our commitment to supporting these key user groups.

Common barriers to switching to EVs

We commissioned global research agency 2CV to survey taxi and private hire vehicle drivers in January 2024 to better understand how they use London's public charging infrastructure. More than 1,900 taxi and private hire vehicle drivers responded to the survey. The survey showed that drivers' main barriers to switching to an EV include concerns around battery life, the initial expense of the vehicle and a lack of charging infrastructure within London. The survey also found that 60 per cent of taxi drivers and 70 per cent of private hire vehicle drivers felt there was a lack of public charge points near where they operate.

Specific needs around charge point locations

Our research showed that most taxi and private hire vehicle drivers charge their vehicles at or close to home overnight to minimise disruption during their working day. Taxi drivers who responded to our survey were more likely to be able to charge at home than private hire vehicle drivers. Drivers without access to home charging need access to public charge points near their home. In line with the commitment in our strategy to help London boroughs understand where taxi and private hire vehicle drivers live and will need public on-street charging infrastructure, we have created new additional layers with the number of London-

---

[17] Licensing information, TfL and internal data

licensed taxis and private hire vehicles at Lower Super Output Areas (LSOA) level which have been added to the London Office of Technology and Innovation's (LOTI) EV charge point analysis dashboard.

We want to make this data available to neighbouring local authorities and work with them to help identify where drivers live and meet demand for charging close to home to support the 23 per cent of taxi and private hire vehicle drivers who live outside London. Drivers will also continue to need access to rapid charging where they operate, including central London, town centres, airports and near to transport hubs.

Charging locations and cost

The cost of charging was also mentioned as a barrier for taxi and private hire vehicle drivers considering switching to an EV. Charge point operators can support these drivers and encourage use by providing preferential rates, and we are encouraged that some have done so already. Preferential rates for specific user groups can be applied through charge point operator membership, and some operators have partnered with taxi booking companies and private hire vehicle operators to provide their drivers with exclusive charging discounts and monthly subscriptions. We will use our London Charge Point Operators Forum to encourage charge point operators to offer and promote reduced charging rates for these drivers, as well as for any other industry-specific issues that need to be raised.

We will continue to work closely with the taxi and private hire vehicle trades to understand their needs and the challenges they face in accessing charging infrastructure, including where they operate. This will inform our current and planned rapid charging delivery.

The Taxi and private hire action plan also sets out that we will consult with the taxi trade and private hire industry in this financial year on a proposal to introduce a zero-emission licensing requirement for taxis and private hire vehicles in the future to further reduce tailpipe emissions. The provision of sufficient charging infrastructure in locations that meet the needs of these drivers will be vital to support them in switching to zero-emission vehicles.

Taxis

In our research, taxi drivers identified the high upfront or financing costs of a ZEC taxi as a barrier to switching. The plug-in taxi grant was introduced by the Government in 2017, offering up to £7,500 off the purchase price of a ZEC taxi. In March 2024, this was reduced to £6,000 and in April 2025 reduced to £4,000. The cost of a zero-emission capable taxi is also high due to the VAT added to the vehicle. We consider that VAT relief should apply to designated wheelchair-accessible vehicles as it does for private wheelchair-accessible vehicles. This would further help taxi drivers invest in a cleaner vehicle. We will lobby the Government to continue offering the plug-in taxi grant beyond April 2026 and remove the VAT from the purchase of taxis and designated wheelchair-accessible private hire vehicles to make this consistent with other such vehicles.

Taxi drivers identify difficulties with accessing taxi-dedicated rapid charge points as an ongoing issue, with 77 per cent of taxi drivers responding to our survey identifying that taxi-dedicated charging bays were blocked by other vehicles. Our strategy included a commitment to find technical solutions to enforce taxi-dedicated bays. It also supported charge point operators who want to streamline the verification of driver licence status, improving efficiencies when applying preferential charging rates to key users, including taxi drivers. We have introduced a private hire driver, vehicle and operator licence checker, although have not yet introduced one for taxi drivers and vehicles. Our Taxi and private hire action plan includes an action to consult in 2026/27 on new photo identification and online licence checkers for taxi drivers and their vehicles. In the meantime, charge point operators can request confirmation from us that a driver or vehicle is licensed by us.

While technical solutions would allow charging to be limited to specific users, such as through a RFID card, there is a high financial cost to removing the pay-as-you-go and contactless feature at existing taxi-dedicated sites, and doing so may disadvantage some London-licensed taxi drivers. We will consider whether technical solutions may be required for any new taxi-dedicated rapid charge points.

Taxi-dedicated charging bays are enforced by Traffic Regulation Orders and have signage to show road users that only taxis are permitted to charge in the bays. We can therefore take enforcement action and issue Penalty Charge Notices to drivers of unauthorised vehicles that are parked in these bays, including licensed private hire vehicle drivers who park in taxi-dedicated charging bays on our road network.

We are also able to take licensing action against licensed private hire vehicles illegally parked in taxi-dedicated charging bays on borough roads, exercising private hire regulatory powers including issuing a warning, or suspending or revoking, a licence. To help with this enforcement, on borough roads, we will work closely with London boroughs to understand where misuse of these bays is especially prevalent, to enable boroughs to use their powers to issue Penalty Charge Notices on their road network.

We will continue to explore different solutions to ensure taxi and private hire vehicle drivers can reliably find and use public charge points to suit their needs. This may include dynamic charging solutions, shared infrastructure to maximise charge point capacity and other ways to prioritise access.

Private hire vehicles

We welcome the commitment from private hire vehicle operators and drivers to move to zero-emission vehicles. Our strategy recognised that several locations had high numbers of licensed private hire vehicle drivers who don't have enough charge points close to their homes. We welcome the investment by one large private hire operator to support the London Boroughs of Brent, Newham and Redbridge to deliver public fast charge points, providing more options for drivers to charge close to home.

We also recognise that private hire vehicle drivers would like additional rapid charging options in central London and other key areas of operation. Our current and planned rapid charging delivery programmes, along with further investment in charging hubs from the private sector, will mean that London is better served for top-up charging to meet the needs of these high-mileage drivers.

Supporting car club electrification

Car clubs are a form of shared transport, providing a service for their members to hire a car for infrequent journeys that are not easily made by more sustainable modes. The Mayor, through us and the boroughs, supports the provision of car clubs, when paired with a reduction in the availability of private car parking.

London has one of the largest car club networks in the UK in terms of fleet size and membership, with 242,013 active members in 2024, and a fleet of 2,932 publicly available vehicles and 138 corporate vehicles according to figures from the Car Club Annual Report 2024. Car club operators continue to invest in EVs in their fleets, with 30 per cent of publicly available cars in the UK now electric, but face barriers, which are slowing their transition. These include the extra costs of running an EV in a car club compared with a petrol or hybrid car, such as: higher purchase and lease costs, the extra staff time needed to move cars to charge (rather than being able to rely on members to charge the vehicles), and higher refuelling costs, particularly for those operators who use rapid or ultra-rapid charge points. Car club operators also say they face extra downtime for charging, higher repair costs, reduced resale values and lower consumer demand for EVs compared with petrol or hybrid vehicles.

Our strategy committed to supporting the electrification of car clubs by encouraging infrastructure in locations where active car clubs operate. We have shared information on the locations of electric car club vehicles with our delivery teams and have shared the locations of sites that we have put to the market for rapid charge point delivery with car clubs. We also welcome Government requirements that allow LEVI funding to support the installation of charge points at on-street car club bays. The London Borough of Hackney is using LEVI funding for an EV car club pilot with operator, Zipcar, with plans for a dedicated EV car club bay in every ward in the borough. This will provide two parking bays at each charge point location with one fast charging socket for public charging and one for car club use.

Our strategy also committed to working with operators and car clubs to explore dynamic solutions, looking at how car clubs can make the best use of infrastructure, including prioritised overnight rapid charging. We have been doing this via the London Charge Point Operators Forum, where CoMoUK, the organisation that represents shared transport such as car clubs, have recently been providing us and charge point operators with an overview of car clubs and their electrification needs. They highlighted the barriers they face to electrifying their fleets, and potential opportunities, including beneficial night-time tariffs for car club cars so that they can charge more EVs outside of peak times.

As commercial businesses, car clubs can negotiate with charge point operators for beneficial tariffs and preferential charging. We will support car club service providers to increase the number of EVs in their fleets across inner and outer London by working with them to identify measures that we, and the London boroughs, could take to address the barriers they face to electrify their fleets. We will share information with service providers and CoMoUK on the rapid charge points we are installing and we continue to work with London Councils to support borough delivery of charging infrastructure for car clubs.

EV ethics and sustainability

Our strategy noted that there are ongoing concerns around the source and end-of-life sustainability of the materials used to manufacture EV batteries. We commissioned C40's Zero Emission Vehicle Network to host a series of virtual seminars on ensuring an ethical, sustainable transition to EVs in C40 cities. The seminars addressed city priorities and requests to learn more about how cities can address emerging issues in the EV lifecycle. They covered EV supply chains, including EU regulations for recycling batteries, and addressed how cities could use responsible procurement requirements to cover ethical sourcing across supply chains.

Responsible procurement is one way in which cities can influence the ethics and sustainability of their supply chains. The GLA Group has a responsible procurement implementation plan that includes promoting ethical sourcing practices and improving environmental sustainability. It also specifies that new contracts from summer 2025 will require zero-emission last-mile deliveries to GLA Group sites.

We are actively participating in the Low Emission Vehicle Programme run by Electronics Watch, an independent monitoring organisation. This collaboration aims to identify and address human and labour rights risks in the supply chains of electric vehicle batteries of public procurement authorities in Europe, for both manufacturing and raw materials.

We welcome the inclusion of vehicles sold in the UK in the European Union's battery passport legislation, making battery 'passports' mandatory for all EV and industrial batteries with a capacity greater than 2kWh sold into the EU market from February 2027. The DfT has worked with the United Nations Economic Commission for Europe to develop a Global Technical Regulation on EV batteries (GTR No.22). If implemented, this regulation would ensure that EVs provide easily accessible, accurate, and comparable information on the battery's state of health. The Government is analysing options for the implementation of GTR No.22 regulations in the UK. We would welcome the introduction of regulations for a standardised battery health certification scheme for used EVs in the UK.

4. Summary and updated commitments

Our 2025 strategy update considers policy and technology changes that have impacted EV uptake and public charging infrastructure delivery and use. We have also reviewed our progress against the strategy commitments (Appendix A) and considered ongoing barriers to delivery with new actions to address these, which are summarised below by theme.

In London, the Mayor has reiterated his 2030 net-zero carbon ambition, committing to double the amount of charge points installed since 2016. We continue our work to improve air quality in London and recently published research which recommends that faster fleet electrification should be pursued in the short-term to reduce non-exhaust emissions, but with measures to tackle the trade-off of increased vehicle weight.

At the national level, the Government has committed to ending the sale of new petrol and diesel cars and vans by 2035, with ongoing incentives to encourage drivers to switch to EVs, including purchase grants for some vehicle types and infrastructure. It has also introduced regulations to improve customer charging experience and regulation changes and new guidance for local authorities and others to make it easier to deliver charging infrastructure.

We will monitor wider policy changes and their impact on EV uptake.

EV registrations continue to increase in London at a faster rate than the UK, with 45,240 new plug-in cars registered in 2024 (33 per cent of new cars, compared with 28 per cent of UK new car registrations) and more than 221,500 plug-in cars now registered in London. Registrations for electric vans are also increasing, although at a slower rate than for cars, with 6,700 plug-in vans registered in London. EV registrations have grown in line with the lower end of our scenario forecasts in our 2021 model, and we have reflected this in the baseline for our 2025 model. We have updated our forecasts to reflect that there would be fewer EVs registered in London in 2030 than we previously forecast. We will monitor trends in vehicle and charging infrastructure, including any emerging new, innovative and experimental charging solutions for all types of vehicles and consider how these may impact EV uptake or driver charging behaviour.

Public charge point delivery has continued at pace, with over 25,500 public charge points across London, the vast majority being slow (up to 8kW) charge points, reflecting extensive delivery by the London boroughs of on-street infrastructure, particularly in inner London. There are over 1,400 50kW and above charge points, with an increasing proportion being ultra-rapid charge points, reflecting new higher-power charge points becoming available to meet the needs of new cars capable of charging at these speeds. There has also been a substantial expansion in the number of locations with multiple rapid charge points, with 55 hub sites and 74 cluster sites across all areas of London.

We will continue to monitor new, innovative and experimental charging solutions across all vehicle types and consider the impact these may have on EV uptake and how drivers use public charging infrastructure.

London’s public EV infrastructure forecasts

In addition to revised future EV fleet forecasts, we made a number of other refinements to the model. Our new projections indicate London will need between 43,000 and 51,000 public charge points in 2030, of which up to 3,500 would need to be rapid, increasing to between 69,000 and 79,000 in 2035, including up to 4,300 rapids.

> We will update our London EV infrastructure forecasts again in two to three years and seek to refine our modelling with more granular inputs, to better support boroughs in understanding their future EV infrastructure needs.

Unlocking land for EV charging

Access to land remains a barrier to delivering rapid and ultra-rapid charge points in London. We will keep our keystone commitment to unlock GLA Group land and will extend it to cover borough land, including parking bays on borough roads suitable for rapid charging. We will continue our rapid charging delivery with new rapid and ultra-rapid charge points installed in parking bays on our road network and new ultra-rapid charging hubs through Places for London’s joint venture partnership with Fastned.

We will continue to support London borough charge point delivery and will update our EV infrastructure borough support pack during 2025 with new information to assist borough officers with EV infrastructure strategy development and delivery.

We will enable ongoing engagement between charge point operators and the public sector in London through the quarterly London Charge Point Operator Forum. We will also ask Government to introduce regulations, as part of the Automated and Electric Vehicles Act 2018, in order to mandate the provision of charge points at large fuel retailers, increasing opportunities for private sector rapid charging delivery.

We will ask Government to ensure a strategic overview of access to power and charge point connections across the key players in the UK’s energy sector in order to provide long-term investment, improve access to the grid and deliver the power required to support charge point delivery.

> We will unlock GLA Group land and work with London boroughs to unlock borough land to repurpose it for EV charging.

Improving consumer experience

We welcome the Public Charge Point Regulation’s requirements which will make it easier for drivers to locate available charge points, be confident that they are working and identify the pence per kW hour cost for charging. Drivers continue to identify the cost of public charging as being a barrier to switching to EVs. We will recommend that Government reduce the 20 per cent VAT on public charging to be equivalent to home charging. We are also undertaking research to better understand the factors that influence the price of public charging and identify any potential solutions which could lessen the cost of public charging.

We will share the results of our public charge point pricing research with London boroughs, including potential options for offering charging at a reduced cost through public sector contracts.

Improving accessibility and making public charging more inclusive

We recognise that there is a lack of accessible public charging infrastructure in London that meets the needs of disabled and older EV users, risking delaying their transition to EVs. We will continue to work with charge point operators to ensure accessibility is a key priority when new charge points are installed to make public charging more inclusive. We will also call for the Government to introduce measures to mandate compliance with the PAS1899 EV accessible charging specification, and to provide funding for local authorities and transport authorities to make improvements to the accessibility of charging infrastructure.

We are undertaking research to verify what information disabled EV users need to help them understand if a public charge point meets their needs and to determine how accessible London's public charging infrastructure is. This research will also explore how we can categorise the accessibility of charge points for different user profiles and how this information is best shared to help drivers understand if a charge point meets their needs.

We will share the results of our accessible charging research widely in 2026, seeking to help refine the PAS1899 accessible charging standard and provide recommendations to government and stakeholders to make it easier for disabled and older EV users to find charge points that meet their needs.

Improving access to charging for commercial vehicles

Access to public charge points that are suitable for commercial vehicles remains a challenge, particularly for those drivers who do not have access to home or depot charging. To support the growth of electric LGVs, we will publish new guidance on delivering more suitable charging infrastructure and identify areas needing more public electric charge points to serve this user group.

The high cost of electric commercial vehicles and charging infrastructure is another barrier. We will recommend that Government maintains the level of the plug-in van and truck grants in 2026 and continues the grants beyond 2027, along with grants for workplace charging infrastructure. We will also support the uptake of other smaller and lighter vehicle modes such as electric cargo cycles and quadricycles, exploring new and innovative ideas for supplying power to these vehicles.

To support HGV electrification, we will create and share a dataset showing potential charging locations that align with strategic freight routes and are near driver rest stops and service stations, during 2025/26. We will also investigate options for suitable sites for charging electric HGVs in London.

We will establish a Coach Operators Forum during 2025/26 to better understand the coach sector's charging requirements and encourage coach operators to begin exploring trials.

We will publish new guidance in 2026 for local authorities and other organisations delivering public charging infrastructure in London suitable for commercial vehicles, and will share data on potential charging locations for electric HGVs that align with strategic freight routes in 2025/26.

Supporting the decarbonisation of emergency and public sector vehicle fleets and opportunities for sharing private charge points

We will use the GLA Fleet and Friends Forum to support emergency services and public sector support fleets to address geographical, operational and cost challenges with electrification, with a focus on sharing charging infrastructure with other public sector fleets.

Sharing charge points in private locations enables charge point owners to get the most out of their facilities by allowing other public or private sector fleets to use their charge points, ultimately reducing costs. We will encourage opportunities for charge point owners to share existing and planned charge points in depots and garages with other commercial fleet users. We will provide guidance on areas of high demand for commercial vehicle charging, and best practice for shared charging, using our role as an integrated transport authority to match opportunities with fleet users looking for charge points. We will also look to include any charge points installed in parking areas at our own depots, where it is safe and secure to do so and does not impact on operational performance.

We will continue to explore shared infrastructure opportunities to support the electrification of emergency services and public sector fleets using our role as an integrated transport authority to match opportunities with fleet users looking for charge points.

Supporting electrification of the taxi trade, private hire industry and car clubs

We will engage with the taxi trade and private hire industry to understand their ongoing needs and challenges in accessing charging infrastructure. As set out in our updated Taxi and private hire action plan, we will consult with the taxi trade and private hire industry in 2025/26 on a proposal to introduce a zero-emission licensing requirement for taxi and private hire vehicles in the future. We will support taxi and private hire drivers by delivering rapid charge points in strategic locations where they typically operate and will support London borough officers and local authorities outside London to deliver on-street charge points near to where drivers live. We will use our Charge Point Operators Forum to encourage operators to offer and promote reduced charging rates, as well as other industry-specific issues that need to be raised. We will also continue to explore different solutions to ensure taxi and private hire vehicle drivers can reliably find and use public charge points to suit their needs, such as shared infrastructure to maximise charge point capacity.

We will help to support the uptake of ZEC taxis by recommending that Government continue the plug-in taxi grant and remove VAT from the purchase of taxis and designated wheelchair-accessible private hire vehicles. We will also continue to help enforce taxi-dedicated bays on borough roads and understand where misuse of these bays is especially prevalent. We will enable boroughs to use their powers to issue Penalty Charge Notices on their road network.

We recognise that car clubs provide options for their members to hire a car for infrequent journeys, offering an alternative to car ownership. We will support car clubs' electrification by sharing information with service providers and CoMoUK on the rapid charge points we are installing, and work with London Councils to support borough delivery of charging infrastructure for car clubs. We will also work with car club operators across inner and outer London and borough officers to overcome barriers to the electrification of car club fleets, where possible.

We will continue to inform our own charge point delivery as well as London boroughs' and neighbouring local authorities' with current data to meet the charging needs of these key user groups. We will also continue to work with boroughs to enforce use of taxi-dedicated charging bays on their roads.

Our requests of the Government

We will call on the Government to:

- Continue the plug-in taxi grant, and remove VAT from the purchase of taxis and designated wheelchair-accessible private hire vehicles to support drivers to switch to zero-emission capable taxis
- Make public charging more affordable by reducing the 20 per cent VAT rate on public charging to be the same as domestic charging
- Support businesses to switch to EVs by maintaining the plug-in van and truck grants levels in 2026, continuing the grant beyond 2027 and continuing the availability of workplace charging grants
- Reduce air pollutant emissions from road transport by aligning the UK with the Euro 7 emission standard, including non-exhaust emissions and battery durability requirements
- Implement a standardised battery health certification scheme for used EVs in the UK

- Introduce regulations, as part of the Automated and Electric Vehicles Act, in order to mandate the provision of charge points at large fuel retailers
- Introduce measures to mandate compliance with the PAS1899 accessible charging specification in order to ensure inclusive charging infrastructure in the UK
- Provide funding for local and transport authorities to make improvements to the accessibility of charging infrastructure
- Ensure a strategic overview of access to power and charge point connections across the key players in the regulation and planning of the UK's energy sector in order to provide long-term investment, improve access to the grid and deliver the power required to support the delivery of charge points

Appendix A: Public charge point delivery by London borough between January 2022 and July 2025. Source DfT and Zapmap

All London boroughs

London borough	January 2022 slow-to-fast	January 2022 rapid (25kW and above)	January 2022 TOTAL	July 2025 slow-to-fast	July 2025 rapid (50kW and above)	July 2025 TOTAL	Change over time
All boroughs	**8,435**	**722**	**9,157**	**24,079**	**1,430**	**25,509**	**16,352**

Inner London boroughs

London borough	January 2022 slow-to-fast	January 2022 rapid (25kW and above)	January 2022 TOTAL	July 2025 slow-to-fast	July 2025 rapid (50kW and above)	July 2025 TOTAL	Change over time
Camden	365	11	**376**	701	11	**712**	336
City of London	51	1	**52**	95	7	**102**	50
Hackney	180	17	**197**	1226	18	**1,244**	1,047
Hammersmith and Fulham	552	46	**598**	2,587	57	**2,644**	2,046
Haringey	72	23	**95**	292	33	**325**	230
Islington	285	24	**309**	629	23	**652**	343
Kensington and Chelsea	653	5	**658**	956	3	**959**	301
Lambeth	290	20	**310**	647	35	**682**	372
Lewisham	111	21	**132**	192	45	**237**	105
Southwark	414	24	**438**	1,830	30	**1,860**	1,422
Tower Hamlets	194	20	**214**	1,281	30	**1,311**	1,097
Wandsworth	609	25	**634**	1,687	43	**1,730**	1,096
Westminster	1,075	72	**1,147**	2,652	72	**2,724**	1,577
Inner London total	**5,156**	**323**	**5,370**	**14,775**	**407**	**15,182**	**10,022**

Outer London boroughs

London borough	January 2022 slow-to-fast	January 2022 rapid (25kW and above)	January 2022 TOTAL	July 2025 slow-to-fast	July 2025 rapid (50kW and above)	July 2025 TOTAL	Change over time
Barking and Dagenham	57	9	**66**	138	19	**157**	91
Barnet	262	25	**287**	843	94	**937**	650
Bexley	45	22	**67**	171	61	**232**	165
Brent	464	21	**485**	1191	29	**1,220**	735
Bromley	73	17	**90**	154	45	**199**	109
Croydon	112	27	**139**	364	65	**429**	290
Ealing	263	36	**299**	701	59	**760**	461
Enfield	142	21	**163**	213	76	**289**	126
Greenwich	215	50	**265**	144	67	**211**	-54
Harrow	42	8	**50**	48	28	**76**	26
Havering	17	14	**31**	83	59	**142**	111
Hillingdon	158	43	**201**	157	84	**241**	40
Hounslow	395	24	**419**	545	100	**645**	226
Kingston upon Thames	170	8	**178**	356	45	**401**	223
Merton	246	17	**263**	850	26	**876**	613
Newham	196	14	**210**	336	22	**358**	148
Redbridge	67	28	**95**	341	39	**380**	285
Richmond upon Thames	342	8	**350**	1301	24	**1,325**	975
Sutton	115	13	**128**	198	46	**244**	116
Waltham Forest	203	8	**211**	1170	35	**1,205**	994
Outer London total	**3,388**	**399**	**3,787**	**9,304**	**1,023**	**10,327**	**6,330**

Notes: The speed category for rapid charge points changed on 1 October 2023 to 50kW. Reductions in charge point numbers at local authority level are related to charge point operators moving their data reporting into the open charge point interface to comply with the Public Charge Point Regulations, resulting in more accurate reporting.

Appendix B: Progress against 2021 strategy commitments

Keystone commitment

2021 commitment

From 2022, unlock GLA Group land to repurpose it for EV charging – addressing one of the biggest barriers to infrastructure roll out in London. Leading the way for London boroughs to unlock their land, ensuring sufficient levels of charging can be achieved

2025 update

Following on from our successful delivery of 300 rapid charge points, we are delivering new infrastructure on our land. Our EV Infrastructure Delivery programme, focusing on delivering rapid and ultra-rapid charge points in parking bays on our road network, has awarded four contracts since 2023 to Zest and TotalEnergies Charging Solutions UK, with new charge points operational and further sites underway and planned. In December 2024, Places for London agreed a joint venture partnership with Fastned to deliver industry-leading ultra-rapid charging hubs across our estate, with five initial sites and more in the pipeline.

Charge point operators tell us that access to land in London remains a barrier to rapid charging delivery. We are retaining this commitment and will continue to unlock GLA Group land and work with London boroughs to unlock borough land to repurpose it for EV charging. Further detail is set out in the 'Unlocking land for EV charging' section.

Commitments targeting all users

2021 commitment

Developing a real-time and open Application Platform Interface (API) of all charge points across London to improve user experience and provide more reliable information on individual charge points. We will improve the user experience and provide more reliable information on individual charge points. Subject to an initial feasibility study and Government funding, this will be initiated in 2022.

2025 update

We undertook initial feasibility work in 2022 to identify how we could develop a real-time open interface to show live information on charge points across London. Funding for this from Government was not forthcoming. However, the public consultation and subsequent issuing of the Public Charge Point Regulations 2023 will help bridge this gap and improve drivers' experience of using public charge points. It included requiring charge point operators to open their data so drivers can find available and working charge points (by October 2024). This means there is no longer a need for us to develop our own real-time and open API. See 'Changes in policy context' section. This commitment has been successfully actioned and is now closed.

Commitments targeting EV Industry

2021 commitment

Seeking a partner to set up an EV Ethics and Sustainability Committee that will engage with others, such as international cities, governments, trade bodies and non-government organisations to identify collective international action to address the ethics and sustainability of the supply chain for EVs. TfL will also seek to tackle through its own procurement standards.

2025 update

As set out in our 'EV ethics and sustainability' section, we successfully commissioned C40's Zero Emission Vehicle Network to host seminars for cities on the ethical and sustainable transition to EVs, which effectively performed the role that this commitment was seeking.

We are also using responsible procurement to influence the ethics and sustainability of our supply chains and promote ethical sourcing practices through the GLA Group's Responsible Procurement Implementation Plan. In addition, we are actively participating in the Low Emission Vehicle Programme run by Electronics Watch. This commitment has been successfully actioned and is now closed.

2021 commitment

Providing demand data and evidence base to support private sector investment in rapid charging infrastructure, via the CPO Forum, and potentially to wider audiences depending on the sensitivity of the data.

2025 update

We meet regularly with charge point operators via the London Charge Point Operators Forum and have offered to share this data, as well as to directly link up CPOs with key stakeholders such as taxi and private hire reps to help them get a better understanding of demand. Over time and as charge point operators have developed and grown, the industry now has its own demand data and evidence bases to support private sector investment in charging infrastructure in London. This commitment has been successfully actioned and is now closed.

2021 commitment

Work with energy distributors (DNOs) to identify localised grid constraints, so that DNOs can get government support to fund grid upgrades, as required.

2025 update

DNOs have their network investments approved and allowed by Ofgem. DNOs will identify localised grid constraints. As set out in our 'Working with energy distributors' section, we will collate a pipeline of projects related to electrification including our own and London borough public charging infrastructure, delivery and emergency services and public sector fleet electrification, and ensure this is properly reflected in the DNOs' future energy scenarios and network planning. We have supported this work, bringing together the two DNOs in London, UK Power Networks and Scottish and Southern Electricity Networks (SSEN), along with GLA Group functional bodies, London boroughs and delivery teams, to better understand where there will be future demand for EV charging infrastructure, both public and depot based. This commitment has been successfully actioned and is now closed.

2021 commitment

Exploring green financing opportunities with the private sector to find the best financing solutions to support the roll out of EV infrastructure.

2025 update

Green financing opportunities have been forthcoming - the National Wealth Fund, instructed by HM Treasury, is very engaged in the EV sector. It supported the Charging Infrastructure Investment Fund, including investments to scale up charge point operators, for example a £60m investment in Zest. More recently, Connected Kerb secured £65m of backing from the National Wealth Fund and Aviva Investors to expand public charging across the UK.

Feedback from charge point operators suggests that access to finance is less of an issue now than it was in 2021, particularly for rapid or ultra-rapid charge points and hubs in London, with reliable utilisation and recognised return on investment attracting financial backing. There has also been a large public investment via the LEVI fund which will substantially enhance London's EV infrastructure supply. We no longer feel any further push is needed to encourage private finance. However, there may be a need for ongoing government funding to address any specific gaps in provision to support underutilised but necessary areas or specific needs such as more accessible charge points. This commitment has been successfully actioned and is now closed.

2021 commitment

Supporting CPOs who want to streamline the verification of taxi driver licence status, improving efficiencies when applying preferential charging rates to key users.

2025 update

A private hire driver, vehicle and operator licence checker is available. Our Taxi and private hire action plan includes an action to consult in 2026/27 on new photo identification and online licence checkers for taxi drivers and their vehicles. In the meantime, charge point operators can ask TfL for confirmation that a taxi driver or vehicle is licensed by us.

Charge point operators can provide preferential rates for specific user groups through membership. We are undertaking research into the cost of public charging, which will include the impact on user groups, such as taxi and private hire vehicle drivers, and will share the findings of this research with stakeholders, including through our London Charge Point Operators Forum. This commitment has been successfully actioned and is now closed.

Commitments targeting taxis

2021 commitment

Working with CPOs to find technical solutions to enforce taxi-dedicated bays.

2025 update

We explored this fully and identified that there were possible technical solutions available, such as the use of RFID cards and removal of the contactless payment option, which would limit other drivers from using the charge point. However, there was a high financial cost to upgrading existing rapid charge points and such solutions may limit access to charging for some London-licensed taxi drivers. We will continue to explore different solutions to ensure taxi drivers can reliably find and use rapid charge points to suit their needs.

Taxi-dedicated charging bays are enforced by Traffic Regulation Orders and we take enforcement action and issue Penalty Charge Notices to drivers of unauthorised vehicles that park in these bays, including private hire vehicle drivers. We will continue to work with boroughs to address parking and/or charging in taxi-dedicated charge bays on their roads, as stated in our Taxi and private hire action plan 2025. Further information is set out in the 'Supporting the taxi trade and private hire industry' section of this document.

2021 commitment

Continuing delivery (subject to funding) of taxi-dedicated bays in locations where taxi drivers frequently work. As demand grows from other key sectors, we will also explore dynamic solutions to maximise utilisation.

2025 update

We are starting a new delivery programme, with £4.5m of funding that focuses on sites where taxi drivers operate. Further information is set out in the 'Supporting the taxi trade and private hire industry' section of this document.

2021 commitment

Continuing to explore innovative charging options including wireless charging on taxi ranks.

2025 update

TfL participated in the Innovate UK funded Wireless Charging of Electric Taxis (WiCET) project. While wireless technology is proven and used successfully in some applications, there remain barriers to widespread use for road transport, which make it unlikely that wireless charging will be an option for charging taxis in the short-term. As set out in our 'EV infrastructure developments' section, we will continue to monitor new, innovative and experimental charging solutions across all vehicle types. This commitment has been successfully actioned and is now closed

Commitments targeting private hire vehicles

2021 commitments

Encourage delivery of slow-to-fast charge points focusing in areas with a high proportion of private hire drivers. Support the delivery of rapid charging where drivers live and work such as town centres across the city

2025 update

London now has over 24,000 slow and fast public charge points, the majority of which have been installed through borough contracts. We welcome this borough delivery, with a further ramping up of delivery through the almost £39m of Local EV Infrastructure (LEVI) funding allocated to London. This will provide more options for private hire drivers without access to home charging to be able to charge their vehicles close to home. To help London borough officers better understand future demand for charging from taxi and private hire drivers, particularly those who will not have access to home charging, we have added new layers to the LOTI EV charge point analysis dashboard showing the number of registered taxi and private hire vehicles in postcode areas across London. We will also make this information available to neighbouring local authorities to inform delivery of on-street charging near where drivers live. Further information is set out in the 'Supporting the taxi trade and private hire industry' of this document.

We continue to deliver rapid charging infrastructure on our road network and will deliver new ultra-rapid charging hubs on our estate, providing more options for private hire vehicle drivers to charge their vehicles where they live and work.

2021 commitment

Instigating a regular forum, from the end of 2021, between CPOs and PHV representatives which will help solve specific issues

2025 update

The GLA has re-established the London Charge Point Operators Forum, with the first meeting held in May 2023. PHV-specific issues are regularly discussed with PHV representatives and others in this forum. This commitment has been successfully actioned and is now closed

Commitments targeting light goods vehicles

2021 commitment

Establishing a commercial fleet database for future planning and investment in infrastructure to support commercial fleet users to switch to EVs, by 2023. This could be built on the Energy Saving Trust study in 2015. By developing a pilot database in London, it would set the context for a scalable national version to be developed, recognising the inter-region trip patterns of commercial fleets.

2025 update

In 2022 we sought funding of up to £1m to develop a pilot database in London. Unfortunately no external funding was available, so we undertook work internally to develop a commercial fleet dashboard using vehicle registration data and a spatial analysis of vehicle kilometres travelled by vans. This took into account where vehicles may be kept overnight and where they are likely to operate. As set out in our 'Supporting commercial vehicle electrification' section, we published the commercial fleets dashboard in 2023 to help local authorities and other stakeholders involved in delivering charging infrastructure identify locations in London with a higher need for public charging for vans. This commitment has been successfully actioned and is now closed.

We are now undertaking further work to support the deployment of electric HGVs, including identifying locations suitable for charge point delivery that align with strategic freight routes, driver rest stops and service stations. We will investigate whether this data can be incorporated into existing tools, such as the commercial fleet dashboard, to support charge point delivery for larger commercial vehicles.

2021 commitment

Set up the London EV Business Leader's forum working with private and commercial fleet operators to address specific issues, including their transition to EVs and how they support the delivery of London's charging needs. This will be achieved from 2022.

2025 update

We investigated setting up a business forum in addition to the London Charge Point Operators Forum. However, we decided we could achieve the same outcomes in a more efficient way, by utilising our ongoing engagement with business and freight and fleet stakeholders. Issues relevant to private and commercial fleet operators can also be raised through the London Charge Point Operators Forum. This commitment has been met (albeit through other mechanisms) and is now closed

Commitments targeting car clubs

2021 commitment

Support the electrification of car clubs by encouraging infrastructure in locations where active car clubs operate

2025 update

We continue to engage with the car club industry to ensure they have access to public charge points, in locations where they operate, including sharing information on the locations of rapid charge points we install. CoMoUK and car club operators have also presented on the challenges they face with electrifying car club fleets and accessing charging infrastructure at our London Charge Point Operators Forum. Further information is set out in our 'Supporting car club electrification' section.

2021 commitment

Working with operators and car clubs to explore dynamic solutions, looking at how car clubs can make optimal use of the infrastructure, such as prioritised overnight rapid charging.

2025 update

We investigated the potential to open up our taxi-dedicated rapid charge points to other key user groups, such as car clubs, or to limit access to our open-access rapid charge points to key user groups at certain times. However, we found it would not be commercially viable to do so with existing charge points. Our ongoing engagement with car club operators has indicated that access to rapid charging is less of an issue than the cost of rapid charging. Our pricing research will inform our understanding of the factors that influence the pricing of public charging and identify any potential solutions which could lessen the cost for key user groups, including car clubs. We continue to work with car club operators and borough officers where possible, to identify and overcome barriers to the electrification of car club fleets with future delivery.

Commitments targeting emergency services

2021 commitment

Work with emergency services and public fleets (e.g. boroughs) via the GLA fleet forum to support their transition to electric vehicles. Building on joint EV infrastructure study, coordinate further EV charge point procurement, market engagement, and explore joint funding opportunities

2025 update

We continue to engage with emergency services and public fleets through the GLA's Fleet and Friends Forum to discuss issues and opportunities to support their transition to electric vehicles. The forum is currently focusing on opportunities for sharing infrastructure. Further information is set out in our 'Supporting emergency services and public sector fleets' and 'Sharing charge points and infrastructure' sections.

2021 commitment

Looking at the feasibility of a dedicated bay for emergency services at one of our rapid charging points, with feasibility work starting in 2022.

2025 update

We explored options for a dedicated bay for emergency services at one of our rapid charging bays with our delivery teams. However, there remain concerns around the commercial viability of dedicating a charging bay to a specific user group, particularly without additional funding. We continue to engage with emergency services and other public support fleets stakeholders though the GLA's Fleet and Friends Forum to discuss issues and opportunities such as shared infrastructure, and access to public charging especially in areas of high demand.

Glossary

Battery passport: A digital record that contains information about a battery's lifecycle, including its origin, materials, manufacturing process, usage and end-of-life options, to enhance transparency, traceability and sustainability within the battery industry

Charge point: A physical device for charging an EV. There are four main charging speeds, based on the power output. Higher-power refers to rapid and ultra-rapid charge points.

- Slow (low power): up to 8kW AC power, similar to home charging
- Fast: 8kW to 50kW, usually AC power
- Rapid: 50kW to 149kW DC power
- Ultra-rapid: 150kW and above DC power

Connectors: The two main types of connectors used in rapid DC charging are the Combined Charging System (CCS) and CHAdeMO. CCS has become the main charging standard worldwide, with only a small number of new rapid charge points being installed with CHAdeMO connectors. CHAdeMO connectors are mainly used by pre-2024 Nissan vehicles.

Cross pavement solutions: Enable residents without off-street parking to charge their EVs using their domestic electricity by safely routing charging cables across pavements.

Clusters and hubs: A cluster is a location with between three and five rapid or ultra-rapid charge points and a hub is a location with six or more rapid or ultra-rapid charge points. Most ultra-rapid charge points are capable of charging two vehicles at the same time.

Distribution network operator (DNO): A company licensed to distribute electricity. Operates the electric power distribution system which delivers electricity to most end users. The two DNOs covering London are UK Power Networks and Scottish and Southern Electricity Networks.

Electric vehicle (EV): A vehicle, capable of being plugged-in to an external electricity source recharge, that uses an electric motor for propulsion, comprising ones that run solely on batteries (BEV), as well as plug-in hybrid electric vehicles (PHEV) or range-extended electric vehicles, which have an attached petrol or diesel engine to power the battery engine. Hybrid electric vehicles (HEV) have a small battery that is recharged through regenerative braking and are not considered to be EVs for the purposes of this report.

Euro 7 standard: The next iteration of European vehicle emission standards, introducing stricter limits on exhaust emissions, and addressing non-exhaust emissions. The standard also includes requirements for battery durability in EVs.

Non-exhaust emissions: From road transport, particles from tyre wear, brake wear and road surface wear.

Particulate matter (PM): Refers to particles or liquid droplets in the air that have a diameter less than 2.5 micrometres across (that is one 400th of a millimetre, about three per cent of the diameter of a human hair).

Regenerative braking: Recaptures energy when an EV slows down, by using the electric drive motor in reverse as a generator. This energy is used to recharge the battery which helps to extend its range.

RFID card: A smart card that uses radio frequency identification technology to facilitate the charging process for an EV.

Wireless charging: Wireless or inductive charging, uses high-frequency electromagnetic induction to transfer energy directly into vehicle batteries.

Zero-emission capable taxi: Taxis that are zero-emission capable have CO_2 emissions of no more than 50g/km and a minimum 30-mile zero-emission range.

Zero-emission capable private hire vehicle: Private hire vehicles that are zero-emission capable must meet the following criteria:

- Emit no more than 50g/km CO_2 and be capable of being operated with no (zero) exhaust emissions for a minimum range of 10 miles (16.1 km)
- Emit no more than 75g/km CO_2 exhaust emissions and be capable of being operated with no (zero) emissions for a minimum range of 20 miles (32.2 km)
- As a minimum, the vehicle must meet the Euro 6 emissions standard if an internal combustion engine is part of the vehicle specification (that is, hybrid vehicles)

About us

Part of the Greater London Authority family led by Mayor of London Sadiq Khan, we are the integrated transport authority responsible for delivering the Mayor's aims for transport. We have a key role in shaping what life is like in London, helping to realise the Mayor's vision for a 'City for All Londoners' and helping to create a safer, fairer, greener, healthier and more prosperous city. The Mayor's Transport Strategy sets a target for 80 per cent of all journeys to be made by walking, cycling or using public transport by 2041. To make this a reality, we prioritise safety, sustainability, health and the quality of people's experience in everything we do.

We run most of London's public transport services, including the London Underground, London Buses, the DLR, London Overground, Elizabeth line, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the IFS Cloud Cable Car.

We manage the city's red route strategic roads and are responsible for the maintenance, management and operation of more than 6,000 sets of traffic lights across the capital. The London boroughs are responsible for all the remaining roads within their boundaries. The experience, reliability and accessibility of our services are fundamental to Londoners' quality of life. Safety remains our number one priority and we continue to work tirelessly to improve safety across the network for both colleagues and customers.

Our vision is to be a strong, green heartbeat for London. We are investing in green infrastructure, improving walking and cycling, reducing carbon emissions, and making the city's air cleaner. The Ultra Low Emission Zone, and fleets of increasingly environmentally friendly and zero-emission buses, are helping to tackle London's toxic air. We are also improving public transport options, particularly in outer London, to ensure that more people can choose public transport or active travel over using their vehicles. We introduced the Superloop bus network, providing express bus routes circling the entire capital, connecting outer London town centres, railway stations, hospitals, and transport hubs.

We have constructed many of London's most significant infrastructure projects in recent years, using transport to unlock economic growth and improve connectivity. This includes major projects like the extension of the Northern line to Battersea Power Station and Nine Elms in south London, as well as the completion of the London Overground extension to Barking Riverside and the Bank station upgrade.

The Elizabeth line, which opened in 2022, has quickly become one of the country's most popular railways, adding 10 per cent to central London's rail capacity and supporting new jobs, homes and economic growth. We also use our own land to provide thousands of new affordable homes and our own supply chain creates tens of thousands of jobs and apprenticeships across the country.

We are committed to being an employer that is fully representative of the community we serve, where everyone can realise their potential. Our aim is to be a fully inclusive employer, valuing and celebrating the diversity of our workforce to improve services for all Londoners.

We are constantly working to improve the city for everyone. This means using information, data and technology to make services intuitive and easy to use and doing all we can to make streets and transport services accessible and safe to all.

We reinvest every penny of our income to continually improve transport networks for the people who use them every day. None of this would be possible without the support of boroughs, communities, and other partners who we work with to improve our services. By working together, we are creating brighter journeys and a better city.