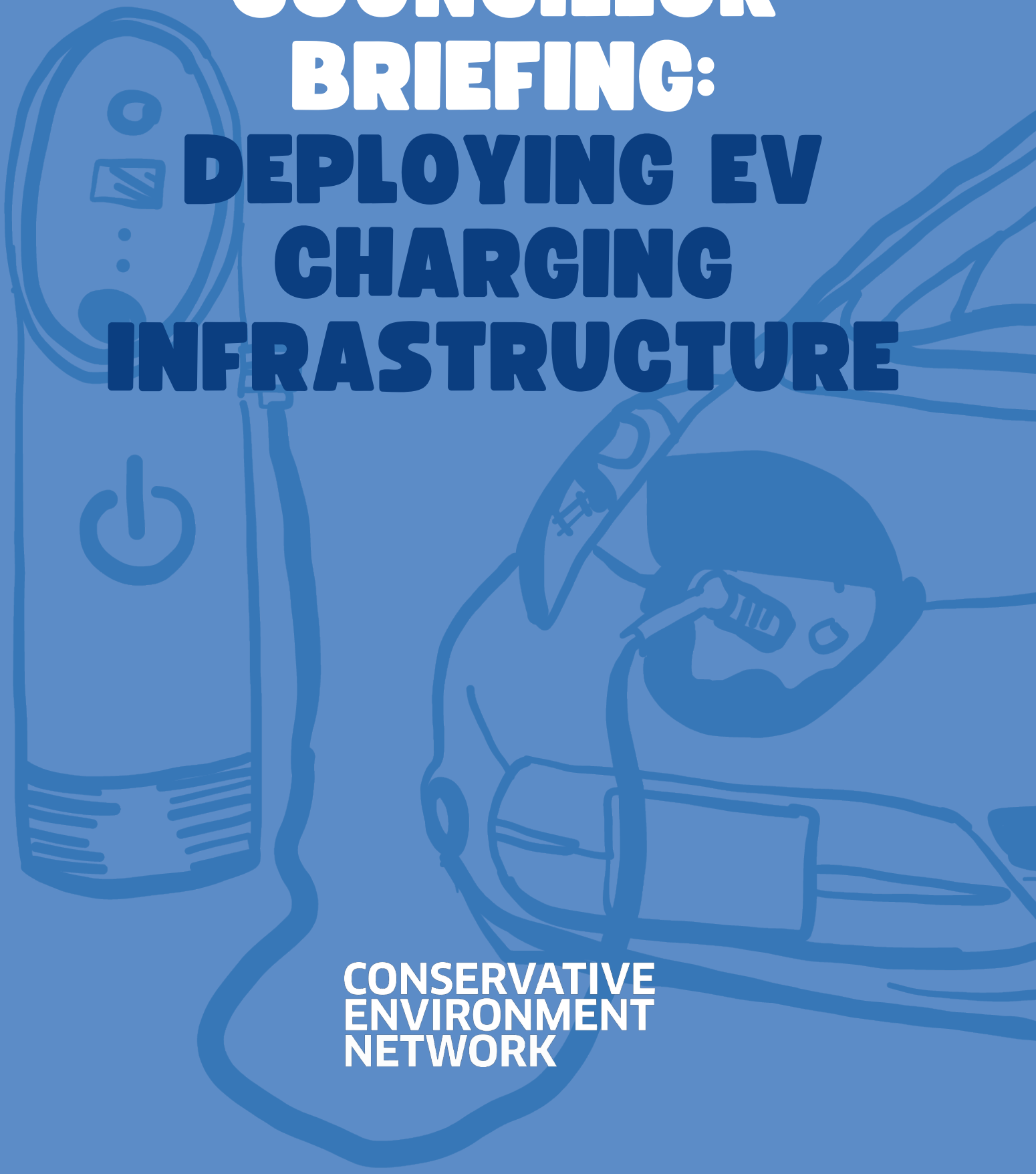
COUNCILLOR BRIEFING: DEPLOYING EV CHARGING INFRASTRUCTURE



CONSERVATIVE ENVIRONMENT NETWORK

CEN councillor briefing: Deploying EV charging infrastructure

- **The UK needs to ramp up the delivery of the charging network to meet the growing demand for EVs.** There are still significant concerns from motorists around charge point availability, which is regularly cited as a reason for not getting an EV. As we get nearer to the 2035 phase-out of new petrol and diesel cars, overcoming this barrier to EV adoption is essential.
- **The previous Conservative government made considerable strides to roll out EVs and charging infrastructure, but more work must be done.** Ambitious targets were set out for EV charging infrastructure, including installing 300,000 public chargepoints by 2030. The Zero Emission Vehicle mandate sets out to turbocharge EV supply, ramping up towards the 2035 phaseout date. Funding initiatives such as the On-Street Residential Chargepoint Scheme have delivered new chargepoints, but the UK must continue to push ahead to meet future demand.
- **Local authorities have a vital role to play in accelerating the rollout of EV charging infrastructure.** Local authorities do not need to spend vast sums of money to accelerate the rollout; instead it can be done by cutting red tape and accessing government and private funding. This briefing will explore some of the ways you can help, including what central government funding can be accessed, what resources are available and private sector alternatives.

EV charging infrastructure in the UK

- **There are over 70,000 electric vehicle public charging points across the UK.** As the number of EVs on the road increases, so too does the demand for EV chargepoints. The number is rising, as there were just 20,964 public chargepoints in the UK in 2020, increasing to 73,699 by the end of 2024. The Department for Transport has a map showing the number of EV chargepoints per local authority area.
- **The majority of EV chargepoints are on private premises.** The majority of EV charging in the UK occurs either at people's homes or workplaces. There are approximately 850,000 private chargepoints across the UK, at homes and offices, compared to just 73,699 publicly accessible chargepoints.
- **Greater London has the highest number of public chargepoints in the country.** In Greater London there are 21,488 public charging points, with the South East having the second highest concentration with 9,290. Public chargepoints enable people who are unable to install or access private EV charging points to buy EVs - especially in cities when off street parking to enable private charging is not always possible.
- **There are three categories of charging networks throughout the UK.** There are 'en-route' networks, the UK's fastest growing public charging infrastructure, which enable EV users to charge their vehicles while on the road and are typically located near motorways. Shell Recharge, an en-route network, provides the most public charging infrastructure across the UK. Destination charging networks enable EV users to charge at locations such as supermarkets and restaurants. It is designed to offer convenience as EV users can do an activity as their EV charges. On-street and

community charging networks are designed to provide a solution for those who can't install private chargepoints such as those living in flats.

- **There are four EV charging speeds: slow, fast, rapid and ultra-rapid.** The categories refer to power output in kilowatts. Ultra-rapid charging is the fastest option to charge an EV; 3,989 of these were installed in public charging locations. An EV can be charged in 10-15 minutes to 80% capacity with ultra-rapid charging, while it would take a rapid charging 20 minutes. Fast chargepoints take between one to six hours to fully charge an EV, while slow charges take between six to twelve hours.
- **EV charging infrastructure can blend into the local architecture.** EV charging infrastructure can take on many different appearances. En-route and destination charging networks will often look similar to fuel outlets at petrol stations. On-street and community charging networks can be blended into the architecture of local communities, as they can be built into lampposts.

The benefits of increasing EV charging infrastructure

- **Boosting EV charging infrastructure will provide a greater number of drivers with the option to have an EV.** To enable more charging infrastructure to be built local authorities must cut red tape and streamline the planning system holding the deployment back. More chargepoints will make EVs a more accessible option for consumers and give more people the opportunity to buy one if they want to. This will also combat range anxiety, a commonly cited barrier to EV purchase.
- **More public EV charging infrastructure will boost competition between providers and help lower costs for motorists**. Increased competition between providers will encourage competitive pricing and stop the price gouging that has occurred with some public charging points. This will also prevent drivers who use public chargers as they can't install a private charging point, from paying such high charging costs. Private EV charging can be as low as 7p/kwh while public charging prices are currently 40-75 p/kwh - more expensive than petrol per mile.
- **Increasing infrastructure will boost the transition to cleaner driving and support the British automotive sector.** Range anxiety, one of the biggest perceived barriers to EV adoption, will be eliminated by increasing EV charging infrastructure. This will increase demand for EVs, benefitting the UK EV automotive industry. Recent investments in the UK EV sector include over £4 billion from Tata to build a new EV battery factory, £600 million from BMW to produce electric cars in Oxford, £1 billion from Nissan for an EV manufacturing hub, and over £380 million from Ford to develop EV components. These investments will help create thousands of jobs across the country.
- **EVs are better for the environment than petrol or diesel cars.** EVs do have higher production emissions due to the carbon intensity of making batteries, but make up for these emissions compared to a petrol or diesel car within two years of use. Even when their production is taken into account ('life-cycle emissions'), EVs produce over three times less CO2 than equivalent petrol cars.

- **The EV transition is crucial for the UK to achieve net zero.** Transport is the largest-emitting sector of the UK economy. In 2021, 109.5 megatonnes of carbon dioxide equivalent were emitted, accounting for 26% of UK emissions. The Committee on Climate Change calculated that transport emissions, of which over 52% is from cars, will need to be cut by over 70% to keep the UK on track for 2050.
- **Drivers can save money by using EVs instead of petrol or diesel cars.** The cost of electricity has increased due to the high price of gas, so charging costs have increased, however, EVs are still considerably cheaper than petrol or diesel per mile overall. A full charge at home would cost approximately £13. An EV charged up at home costs around three pence per mile. Refilling a petrol or diesel car costs on average between 19 and 21 pence per mile. 'Rapid' charging at motorway service stations costs more at about 18 pence per mile.
- **More EVs on the road will improve air quality and people's health.** Battery EVs do not produce exhaust emissions, such as nitrogen oxide or carbon dioxide which worsen air quality. Human-induced air pollution in the UK is responsible for up to 36,000 deaths per year in the UK. Road vehicles are responsible for 87% of transport emissions, making it easier for drivers to switch to EVs is key to improving air quality.

Previous Conservative government actions

- **The 2022 EV Infrastructure Strategy set out new short-term targets for chargepoints.** It is expected that there will be at least 300,000 public chargepoints by 2030. Smart charging was also prioritised as it will be critical to balancing the grid by allowing charging to take place when electricity demand is lower and cheaper.
- **The Transport Decarbonisation Plan and 2035 Delivery Plan laid out how the Government will deliver EV chargepoints.** £1.3 billion in funding was allocated to accelerate the deployment of EV charging infrastructure. The £950 million Rapid Charging Fund will invest in upgrading grid capacity at service areas across motorways and A-roads. By 2035, 6,000 ultra-rapid chargepoints will have been rolled out across the strategic road network.
- **The extension of permitted development rights was proposed for EV charging infrastructure to make it easier to install.** One of the proposed changes was to remove the two metre from a highway limit for wall-mounted EV charging outlets. Other proposals include removing limitations on electrical upstands for EV charging; and increasing their height limit from 2.3 to 2.7 metres when within the curtilage of a dwellinghouse or block of flats.
- **The On-street Residential Chargepoint Scheme (ORCS) provided authorities with access to funding to roll out EV charging infrastructure.** The scheme provided funding to local authorities between 2017 to 2024. Up to 75% of funding was available after receiving approval for the grant and 25% after completion for chargepoints located on-street or in public car parks. Between 2017 and 2024, 9,972 public charging points were installed as a result of the scheme.
- **The Local Electric Vehicle Infrastructure (LEVI) was launched in 2022.** The LEVI scheme supports local authorities to accelerate the deployment of and improve

charging infrastructure. LEVI builds on the achievements of ORCS and has provided over £42 million to the regions in the UK to date.

- **The Zero Emission Vehicle Mandate was launched in 2024, which will increase the number of EVs on the road and the demand for charging infrastructure.** Battery EVs made up 18.7% of all new cars sold in 2024, with 338,314 sold compared to 314,684 in 2023 and 267,203 in 2022. The ZEV mandate requires manufacturers to produce an increasing number of zero-emission vehicles, going from 22% of their total car sales in 2024 to 80% in 2030 and 100% in 2035. The ZEV mandate will give drivers more choice of make, model and price point for their EVs.

Labour's plans for EV charging infrastructure

- **The Labour government has committed to phase out the sale of new vehicles with internal combustion engines by 2030.** In the 2024 Autumn Budget, the government reversed the Sunak Government's delay of the ban to 2035. 2035 will remain the phase out date for new hybrid vehicle sales. It will still be possible to buy second-hand petrol or diesel cars after 2035.
- **In the Autumn budget 2024, over £200 million was pledged to accelerate the construction of EV charging infrastructure**. This was part of a wider government pledge to decarbonise the transport sector.

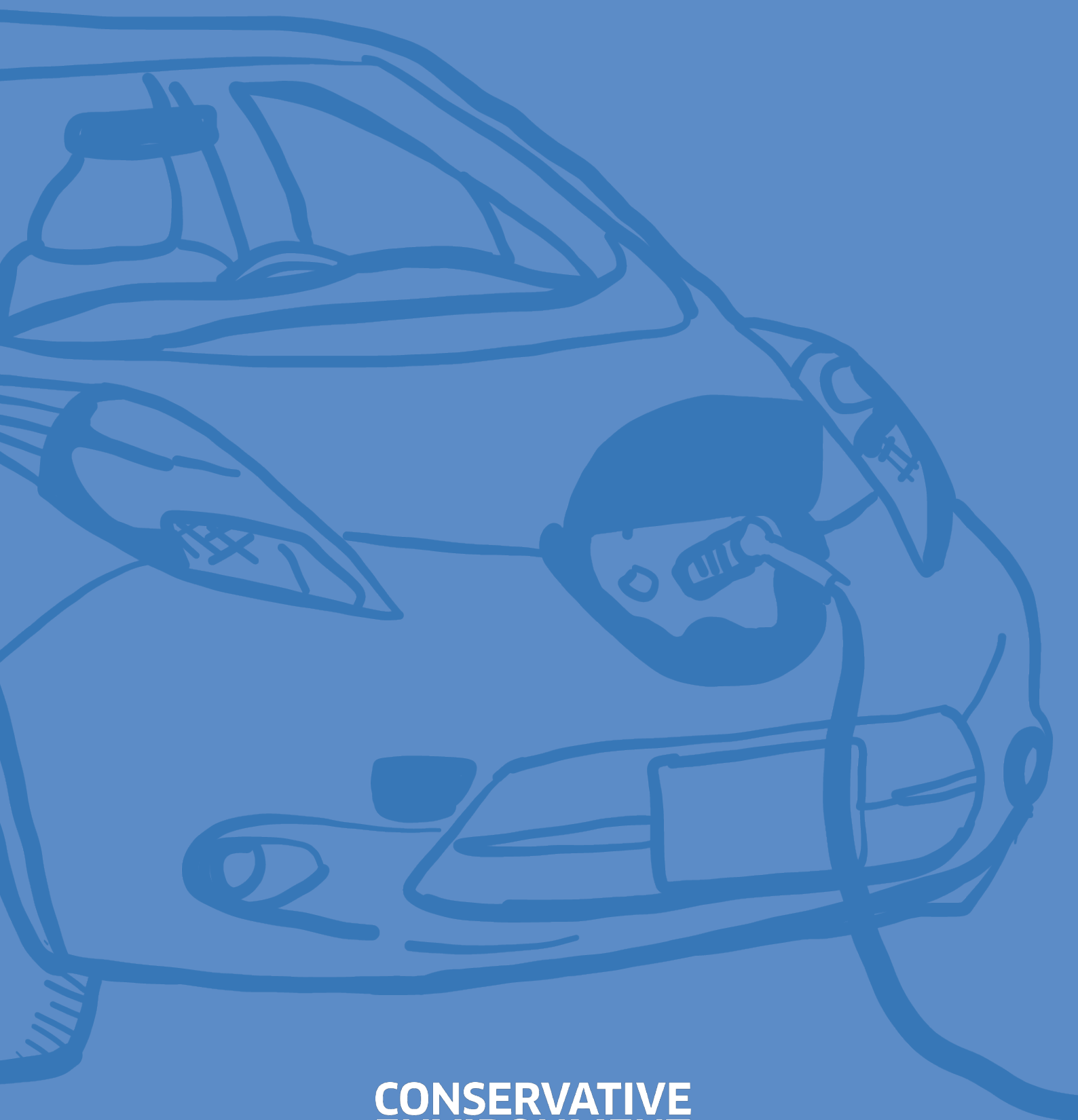
Resources and ideas

- **Apply for funding from government schemes to roll out local EV charging infrastructure.** Local authorities do not have to fund the projects out of their own pocket in its entirety or at all. Authorities can bid for government funding, such as ORCS or LEVI. You can access government guidance on how to bid, and get advice on the Energy Saving Trust's local government support programme webpage.
- **Partner with firms such as energy network providers and EV charging point operators to fund the rollout of infrastructure.** Prioritise encouraging private investment rather than public funds to roll out infrastructure in areas where chargers are needed due to the number of EVs. Public funding should be targeted on areas that are not yet economically viable for private investment.
- **Introduce a standardised tender process for local authorities to install EV chargepoints.** Local authorities take different approaches to tendering out for the installation of EV chargepoints, creating a barrier to businesses applying for the tenders, as they have to provide different information in different tender applications. Standardising the process would make it easier for businesses to apply for tenders.
- **Run a digital awareness campaign about what grants are available to install EV chargepoints.** Informing residents about what grants are available will encourage more businesses, landlords, homeowners and others to install EV chargepoints. This information could be shared on your council's website or by a social media campaign. The Office for Zero Emissions Vehicles has published digital lists of available grants.

- **Create a website that allows the public to suggest EV charging point locations within the council's authority.** This ensures that the infrastructure is installed where the demand is and that a large number of EV users will benefit.
- **Access online resources designed to help local authorities boost EV charging infrastructure.** The Department for Transport and non-governmental bodies such as the Energy Saving Trust (EST) have produced toolkits, webinars, and run workshops to inform local authorities on how they can increase EV charging infrastructure. These resources are free and should be taken advantage of.
- **Ensure there is open conversation with the local Distribution Network Operator (DNO) early on in the EV project.** The earlier the conversation starts, the better, as the project may impact the DNO, and grid reinforcements may be required. DNO arrangements are vital to a project. If DNOs cannot accommodate the scheme, timely and often expensive upgrades will be required. Get a clear understanding of the cost with the DNO at the start of the project to make sure the project stays within budget.
- **Ensure that local planning byelaws do not prevent the rollout of EV charging infrastructure.** Local authority planning byelaws can often add additional red tape to the rollout of EV chargers, for example by preventing homeowners with on-street parking from trailing cables or installing cable gullies between the house and their car. A review of such byelaws could be undertaken to establish if there are any local byelaws that are preventing individuals from making the switch to EVs.

Case studies

- **The Royal Borough of Kensington and Chelsea Council partnered with OVO Energy and Ubitricity to increase the number of public EV charging point lampposts.** The scheme was launched in 2017 to accommodate the growing demand for charging points in a cost-effective and minimally visually intrusive manner by retrofitting lamp posts. The equipment needed for the scheme was funded by residents buying either a cable for £199 and a monthly subscription scheme to Ubitricity to access the charging points or by buying a cable for £299 with electricity charged for by the kWh.
- **Oxfordshire County Council successfully bid for LEVI and was awarded £3.6 million to build more public EV charging points.** In 2024, the County Council was awarded the funding under the condition that the money awarded is expected to triple public EV chargepoints by 2025. This money seed-funds the EV infrastructure rollout worth upwards of £10 million, with the rest of the financing to come from EV chargepoint operators. It is hoped this will help to install over 1,300 public EV chargepoints.
- **The West Sussex Chargepoint Network was delivered through a partnership of seven local and borough authorities.** In 2021, the local authorities signed a contract with Connected Kerb to deliver the network. The partnership took a collaborative approach to delivering the network and enabled other organisations, such as community groups, village halls and parish councils, to have their say in the delivery of the project. The scheme was funded through a mix of government funding and Connected Kerb's concession contract with the partnership. The government funding included £1.8 million from ORCS and £5.5 million from LEVI.



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