



Borough of Telford and Wrekin

Cabinet

14th July 2022

Public Electric Vehicle (EV) Charging Infrastructure Strategy

Cabinet Member:	Cllr Richard Overton, Deputy Leader and Cabinet Member for Housing, Enforcement and Transport Carolyn Healy, Cabinet Member for Climate Change, Green Spaces, Natural and Historic Environment and Cultural Services
Lead Director:	Dean Sargeant - Director Neighbourhood & Enforcement Services
Service Area:	Strategic Transport and Highway Network Management
Report Author:	Matt Powell – Service Delivery Manager: Strategic Transport & Highway Network Management
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Wards Affected:	All
Key Decision:	No
Forward Plan:	21 April 2022
Report considered by:	SMT on 15th June 2022 Cabinet on 14th July 2022

1.0 Recommendations for decision/noting:

It is recommended that Cabinet:-

- 1.1 Approves the adoption of the Public Electric Vehicle Infrastructure Strategy attached at Appendix A.
- 1.2 Endorse the proposals and approve plans to proceed to procurement of a delivery partner.

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- 1.3 Delegate authority to the Director: Neighbourhood & Enforcement Services, in consultation with the Deputy Leader & Cabinet Member: Housing, Enforcement & Transport to refresh the Public Electric Vehicle Infrastructure Strategy as required to support the emerging Local Transport Plan.

2.0 Purpose of Report

- 2.1 The purpose of this report is to update Cabinet on the revised and updated Public Electric Vehicle (EV) Charging Infrastructure Strategy for the Borough.
- 2.2 The primary aim of the revised and updated EV Strategy is to support EV users with accessible chargepoints across the Borough thereby ensuring EVs are an affordable and viable option for residents, visitors and businesses. This strategy will support our climate change action plan by encouraging the adoption and roll out of electric vehicles, and improve the quality of life for residents through a reduction of noise and air quality impacts.

3.0 Background

- 3.1 In 2018, Telford & Wrekin Council developed and adopted the Ultra-low Emission Vehicle Strategy which recognised the benefits of EVs and the requirement for publically accessible charging infrastructure.
- 3.2 In June 2019, the UK Government announced ambitious plans to achieve net zero by 2050 and followed this in November 2020 by banning the sale of new petrol and diesel cars by 2030.
- 3.3 In July 2019 the Council declared a climate emergency and committed to ensuring it is carbon neutral by 2030. The 'Becoming Carbon Neutral' Action Plan includes a number of actions to support the Council's transition to an electric fleet and to support employees to do the same.
- 3.4 On the 25 March 2022, the Government published a national strategy - [Taking charge: the electric vehicle infrastructure strategy](#) – which sets out the vision and action plan for the rollout of electric vehicle charging infrastructure in the UK, ahead of the phase out dates. They expect, as a minimum, to have 300,000 chargepoints across the UK by 2030 which represents a tenfold increase in the current number of publicly available points.
- 3.5 Emerging thoughts on the EV strategy were presented to Communities Scrutiny Committee at their 12 April 2022. Scrutiny while endorsing the recommendations, were provided with an update on action taken to date, the role the Council has in supporting this infrastructure while noting the current plans to replace council operated vehicles with EV's where possible.
- 3.6 Communities Scrutiny Committee queried the scope for car parks such as Southwater to provide EV chargepoints, opportunities to work in partnership with organisations to promote use of public charge points and provision of charge points in residential areas with limited or on-street parking. Committee were updated on plans to install charging in

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council owned car parks for both public charging and council owned vehicles as well as on-going discussions with partners. Members heard that the Council is exploring opportunities for EV infrastructure in residential areas with limited or on-street parking while noting a continual evolution in technology.

3.7 In parallel to the review of the existing EV strategy, the Council has been working to support the Council's transition to EVs for its own operations which includes:

- Where possible replace existing fleet petrol or diesel vehicles to EV
- Install chargepoints in Council owned carparks and offices
- Support employees to switch to EVs

3.8 The Council currently operates six EV's (as shown in the graphic below) with a further seven due to arrive shortly. These vehicles are (or will be) used by Libraries, Public Protection and Highways teams. This will leave the Council with 30 diesel vehicles (not including passenger transport - see below), and consideration will be given to replacing these at the earliest opportunity.

3.9 It should be noted that the initial six vehicles operated by the service areas will save approximately 6 tonnes CO2e per annum.



3.10 The Council currently operates a fleet of over 40 mini-buses that delivers home to school, adult social care and community transport. Consideration has been given to replacing these with EV equivalents. However, at this time EV replacements are not comparable operationally while presenting challenges for reduced range required for services. In light of this, the Council has procured eight new mini-buses with the latest engine technology that reduces CO2 emissions compared to those replaced.

3.11 Since the 2018 Ultra-low Emission Vehicle Strategy, the number of locations with EV chargepoints across the Borough has more than doubled to 46 charging devices. The rapid increase in chargepoint locations is largely due to supermarkets and drive-thru restaurants providing EV chargepoints as part of their customer offer.

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- 3.12 The locations of current EV chargepoints in the Borough is shown on the map below, taken from [Zap-Map](#). Public EV chargepoints are indicated by the pin with the lightning bolt, resident's EV chargepoints that are also available to the public through the Zap-Home scheme are depicted by the house symbol.

Map Source: [Zap-Map](#)

Key:

- Yellow – slow charge
- Blue – fast charge
- Pink – rapid charge

Lightning bolt symbol indicates public EV chargepoint
House symbol indicates residential EV chargepoint part of Zap-Home scheme



- 3.13 Since 2018 there has also been rapid increase in the number of ultra-low emission vehicles registered in the Borough. Ultra-low emission vehicles includes plug in hybrid, self-charging hybrid and electric vehicles.

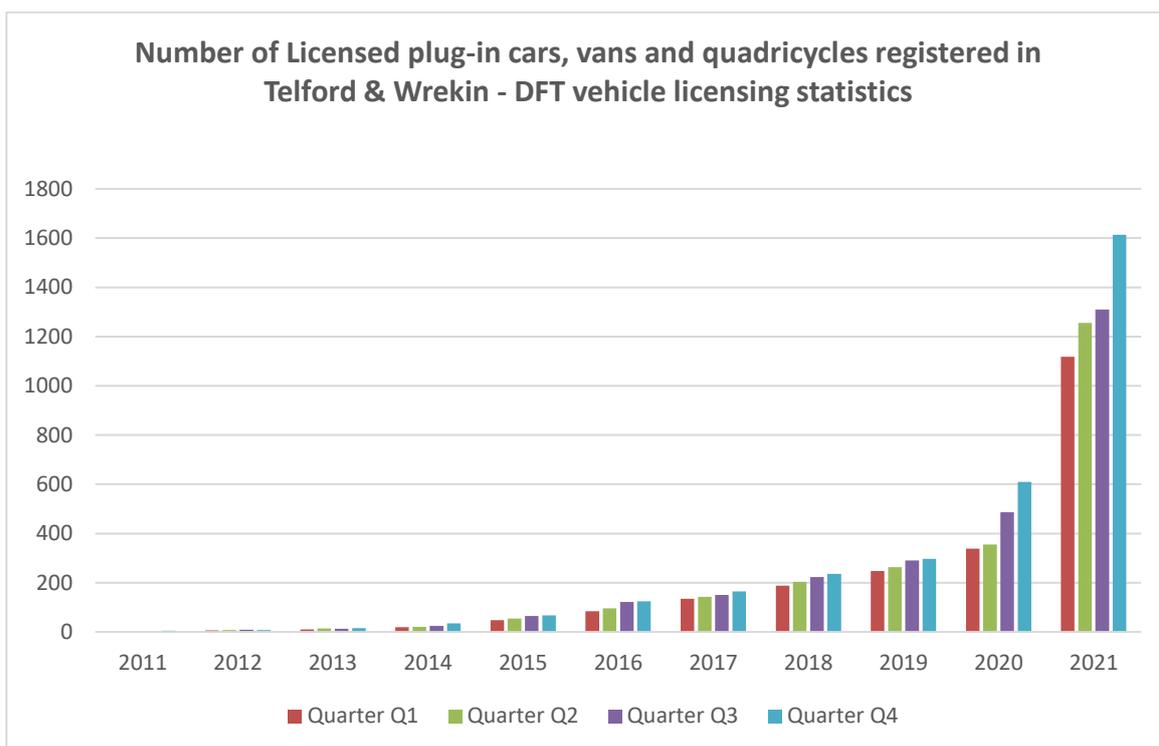
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- 3.14 At the end of 2017, the number of ultra-low emission vehicles registered in the Borough was 164. By the end of 2021, this figure had risen to 1,613 - an increase of 883%. However, it is important to note that this represents 1.5% of all vehicles registered in the Borough; while this is below the UK and England percentage it is slightly higher than the West Midlands region.

Geography	Total number of vehicles	Total number of Ultra-Low Emission Vehicles	Percentage
United Kingdom	40,274,788	738,986	1.8
England	33,214,590	660,836	2.0
West Midlands	3,538,590	49,982	1.4
Telford & Wrekin	109,634	1,613	1.5

*Ultra-low emission vehicles includes battery electric, plug-in hybrid and fuel cell electric vehicles.

- 3.15 New data has shown 930 EVs are registered to companies located within the borough and 683 are registered to private addresses in the borough.



- 3.16 Furthermore, since 2014, 599 EV chargepoint devices have been installed under the [EV Homecharge Scheme](#) (EVHS) and 51 sockets have been installed under the [Workplace Charging Scheme](#) (WCS). These schemes are operated by the Office for Zero Emission Vehicles (OZEV).
- 3.17 However, despite this rapid increase in available public chargepoints, there are still gaps in the provision across the borough. The Public EV Charging Infrastructure Strategy aims to address this gap while providing the foundation to facilitate infrastructure growth across

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the borough. It is clear with the increase in EV's across the borough the council needs to play its part in supporting the delivery of infrastructure to complement vehicle take up to both residents and visitors.

4.0 Summary of main proposals

- 4.1 This strategy sets out the priorities for the installation of EV chargepoints across the borough providing the Council with a better understanding of the scale and pace of investment required.
- 4.2 The strategy recognises that while the Council can lead on electric vehicle chargepoint installation in its car parks or on-street, support is needed from residents, workplaces, retail and leisure destinations to install EV chargepoints where a need has been identified, as well.
- 4.3 The strategy action plan covers three key areas: Funding, Procurement and Engagement.
- 4.4 The Council will look to utilise relevant funding from UK Government, the Department for Transport (DfT) and the Office for Zero Emission Vehicles (OZEV) and explore the commercial partnership opportunities. This will allow the funding to be deployed to support the widest distribution of EV chargepoint solutions.
- 4.5 The Council will outline a clear procurement process for EV chargepoints at locations that are on Council owned land and will engage with operators to assess the level of interest in the installation of EV chargepoints across the Borough.
- 4.6 The Council will continue to engage with residents and ensure that they have access to informative material about EV's and EV charging infrastructure, and are encouraged to transition to EVs.
- 4.7 Adopting this strategy will help the Council monitor progress and manage expectations from residents and stakeholders. It also supports a number of other Council strategies to deliver their vision, aims and objectives. Namely the emerging Local Transport Plan and Air Quality Plan.
- 4.8 Appendix B of the strategy contains the current planning guidance note on EV charging infrastructure. The guidance note recommends standards for the provision of EV charging infrastructure and encourages all developments that result in an uplift of residential units or non-residential floor space consider the provision of EV charging infrastructure. It is understood that Government intends to lay legislation in 2022 to require all new residential and non-residential buildings to have an EV chargepoint.

5.0 Alternative Options

- 5.1 In developing this strategy there has been alternative options considered including allowing the emerging EV charging industry to take the lead. However, this is likely to lead to an ineffective EV chargepoint network across the Borough focussed on commercially

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viable locations only. This would likely result in a reduction in people choosing to switch to an EV and the diminished opportunity to benefit from reduced air and noise pollution. The Strategy provides the foundation to co-ordinate delivery of EV infrastructure across the borough.

- 5.2 Government has made it clear that local authorities have a role to play in delivering EV chargepoints due to their understanding of the transport needs of their local population, their responsibility for planning policy, ownership of car parks, and management of the public highway.

6.0 Key Risks

- 6.1 The transition to EVs is a risk to the energy system not only in the Borough but to the UK. The Council will work closely with energy suppliers to ensure the local energy network can support the demand for electricity and charging infrastructure while making the most efficient use of the electricity network.
- 6.2 The Council will ensure that EV chargepoints do not present a safety risk to pedestrians (through obstructing pavements or trailing cables on the highway) and that they do not disrupt traffic flow, cyclists or pedestrians.
- 6.3 There is a risk that the current rollout of public EV charging will be too slow to meet demand, which risks creating 'charging deserts', reducing people's willingness to switch to EVs.
- 6.4 The Council is aware that EV chargepoint operators are experiencing delays due to issues within their global supply chain. Long delays in installing EV chargepoints could influence people's willingness to switch to EVs, and also our ability to proceed to installation and procurement phases at the pace we would like to.

7.0 Council Priorities

- 7.1 The adoption and implementation of the EV strategy will support the following priorities:
- Every child, young person and adult lives well in their community;
 - All neighbourhoods are a great place to live
 - Our natural environment is protected, and the Council has a leading role in addressing the climate emergency;

8.0 Financial Implications

- 8.1 As this Investment Plan is setting out a long term delivery strategy, it is noted that funding will be required to deliver the plan, and as such, specific financial decisions based on the availability of internal and external funding will need to be made as any schemes are brought forward.
- 8.2 At this stage it is unclear what private investment we will be able to leverage through our initial procurement phases. As such, it is not possible to estimate how much future funding may be required to provide a holistic charging network. However, once the initial

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procurement phase has taken place, the delivery plan will be updated to quantify this potential required investment, which will then be used to leverage funding from external sources through bidding and developer contributions, and also for consideration through our own capital investment as appropriate.

- 8.2 Capital funding of £100,000 in financial year 2022/23 is available to support procurement of charging points and has been approved as part of the Highways capital programme within the Medium Term Financial Strategy 2022/23 to 2025/26.

9.0 Legal and HR Implications

- 9.1 Council declared a climate emergency and committed to ensuring they are carbon neutral by 2030; this complements the Government's ambitious plans to achieve net zero by 2050. The Council aims to invest in an EV strategy as set out in the main body of the report. There are no immediate legal implications from this report but it is recognised that legal support may be needed going forward. Adopting the strategy will support the climate change action plan and help the Council monitor progress and manage expectations of stakeholders. The increasing use of and accessibility to EV vehicles will assist in ensuring the Council is able to meet targets.

10.0 Ward Implications

- 10.1 This strategy covers the whole Borough and sets out how the Council will work in partnership with Town and Parish Council's as well as other organisations to provide a cohesive EV chargepoint network for the Borough.

11.0 Health, Social and Economic Implications

- 11.1 Poor air quality is the largest environmental risk to public health in the UK as it can cause chronic conditions such as cardiovascular and respiratory diseases as well as lung cancer, leading to reduced life expectancy. It particularly affects the most vulnerable in society: children, older people and those with pre-existing heart and lung conditions.
- 11.2 Road transport is the biggest source of nitrogen oxides (NOx) in the UK, and is the main source of exposure at the roadside. It also produces particulate matter (PM_{2.5}), volatile organic compounds (VOCs) and sulphur dioxide (SO₂).
- 11.3 Road transport in the Borough accounts for 42% of the total NOx emissions, and 13% / 15% of the total PM10 and PM2.5 emissions respectively.
- 11.4 Supporting and facilitating the switch from petrol / diesel vehicles to electric vehicles will not only contribute to the reduction in nitrogen oxides emissions across the borough but also contribute towards the reduction in the amount of harmful air pollutants such as those listed above.
- 11.5 Reducing air pollution and noise pollution (as EV's can be quieter than petrol/diesel equivalents) will benefit everyone but especially people who live close to or next to roads, and / or suffer from respiratory conditions.
- 11.6 Currently the cost of purchasing an EV is higher than a petrol/diesel equivalent vehicle. However, as more EV enter the market place, it is expected that within a few years there will be price parity, and the second hand market for EVs will become even larger as more vehicles filter through.

12.0 Equality and Diversity Implications

- 12.1 As highlighted in sections 11 and 13, the benefits of reduced air pollution and noise pollution brought about by switching to EVs will be felt by everyone but particularly those currently adversely affected: children, older people, those with pre-existing health conditions and disabilities.
- 12.2 For people with a disability, Motability offer a service which enables them to lease a vehicle including EVs.
- 12.3 Furthermore, Government have announced that they will provide [accessibility standards](#) for EV chargepoints by summer 2022. The standards will provide guidance on how to make individual chargepoints more accessible and consider all aspects such as kerb height, adequate space between bollards and chargepoints being of a height suitable for wheelchair users.
- 12.4 With regard to public EV chargepoints, the infrastructure delivered by these proposals is aimed to improve access to the borough by all, in turn promoting inclusivity.
- 12.5 However car ownership can be expensive and not everyone has the ability to own a car. Car ownership is lower for people who disabilities, those with sole caring responsibilities mainly women, and those less likely to be in employment. At present EVs cost more to purchase even though their running costs are cheaper compared to a petrol / diesel vehicle. Over time the situation will change as price parity is achieved and the second hand car market grows. This strategy includes dynamic evidence gathering and analysis that allows emerging needs to be identified and met, including those were socio-economic considerations are a factor.
- 12.6 There are established alternatives to the car including cycling, walking and public transport. The Council has adopted strategies that aim to promote, improve and increase the number of journeys completed in the Borough by active sustainable modes of transport.
- 12.7 The EV strategy will ensure that proportionate engagement across all sections of the community continues to take place to make sure it matches the changing needs of those communities for an accessible and sustainable charging and low carbon travel network.
- 12.8 The proposals are not thought to have any specific impacts on our armed forces community, other than through access to any improved infrastructure that would be available to all.

13.0 Climate Change and Environmental Implications

- 13.1 In June 2019, the UK parliament passed legislation requiring the government to reduce the UK's net emissions of greenhouse gases by 100% related to 1990 levels by 2050. Transport is the single largest contributor to the UK carbon dioxide emissions, representing around 35% of the total emissions.
- 13.2 Supporting and facilitating the switch from petrol / diesel vehicles to electric vehicles will contribute to the reduction in carbon dioxide emissions across the borough and the UK. Currently road transport in the Borough is responsible for 42% of nitrogen oxides (NOx).
- 13.3 Currently Telford & Wrekin's Air Quality Strategy is being reviewed. Part of the review will explore emissions using Telford & Wrekin Council Strategic Transport Model (TSTM) and

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national fleet composition data to obtain a detailed breakdown of the emissions within different vehicle categories.

13.4 The emission data indicates:

- Diesel cars account for the highest component of NOx emissions (46%), followed by diesel Light Goods Vans (LGV) (33%)
- Sources of emissions of PM2.5, PM10 and CO2 are relatively similar with cars providing the highest emissions
- Private cars account for >50% of emissions of all considered pollutants
- Buses/Coaches account for a relatively small proportion (1%) of emissions of pollutants

13.5 Using the Defra Emission Factor Toolkit v1.0 (EFT), the total emissions for each pollutant from road traffic sources, based on the 2019 baseline scenario is shown in the table below.

2019 Base	NO _x (kg/yr)	PM _{2.5} (kg/yr)	PM ₁₀ (kg/yr)	CO ₂ (tonnes/yr)
Total Emissions	688,271	39,162	65,350	369,366

2019 Base Scenario Total Annual Emissions for Telford and Wrekin

13.5 As the table illustrates switching all private petrol and diesel cars in the Borough to electric equivalents, will bring about significant reductions in all pollutants.

13.6 However, it should be noted that there are other sources of particulate matter which include brake, tyre and road surface wear, and the switch to EVs won't necessarily remove these pollutant sources.

13.7 EVs are recognised to support the Borough to become carbon neutral as set out in the [carbon neutral action plan](#).

14.0 Background Papers

- 1 Electric Vehicle Strategy Update – Communities Scrutiny – April 2022

15.0 Appendices

- A Public Electric Vehicle (EV) Infrastructure Strategy

16.0 Report Sign Off

Signed off by	Date sent	Date signed off	Initials
Finance	09/06/2022	10/06/2022	PT
Legal	09/06/2022	15/06/2022	SH
Director	09/06/2022	09/06/2022	DRS