

Cabinet Meeting on Wednesday 18 January 2023

Staffordshire County Council Electric Vehicle Charging Infrastructure Strategy



Councillor David Williams, Cabinet Member for Highways and Transport said,

"Transport accounts for around 40% of Staffordshire's annual carbon emissions, and as well as contributing to climate change, has a major impact on public health. While it is not the county council's role or responsibility to install the charging points, we know our communities, and we want to work with partner local authorities and the private sector to make sure we have a convenient and accessible network of charging points in Staffordshire that supports the move away from petrol and diesel vehicles."



Councillor Simon Tagg, Cabinet Member for Environment, Infrastructure and Climate Change said,

"The County Council declared a climate emergency in 2019 and we are making great progress as an organisation to achieve our target of net zero carbon emissions by 2050.

We have a role to play in inspiring and making it easier for more people to switch to green and active travel, such as walking and cycling, or the use of electric vehicles. Indeed, the Government has banned the sale of all new petrol and diesel cars beyond 2030 so across the country and in Staffordshire we need to see more charging

points installed for electric vehicles in public places, on street and in workplaces."

Report Summary:

This report seeks approval for the adoption of a Public Electric Vehicle Charging Infrastructure Strategy developed by Staffordshire County Council (SCC) working with the Staffordshire District and Borough Councils

(full Strategy is available in Appendix 1 whilst an Overview is provided in Appendix 2).

In 2020 the government announced its intention to end the sale of new cars powered by petrol and diesel combustion engines by 2030 and plug in cars by 2035. The biggest annual increase in number of electric vehicle (EV) registrations was witnessed in 2021, with more than 740,000 plug-in hybrid and battery-electric cars registered, showing a growth of 70% on 2020. Charging infrastructure will need to grow accordingly to ensure an unhindered transition to EVs.

SCC will not be delivering EV infrastructure across the County, however, by developing this Strategy we are creating a framework for others to deliver. This Strategy sets the scene for why we need to act, explains the current picture and outlines the role that SCC will play as a supporter and coordinator of efforts to promote greener travel across the county. The Strategy will assist in enabling EVs to be a viable option for residents, visitors and businesses whilst helping to support the aims of the Council's Strategic Plan, through contributing towards achieving carbon net zero and improving the quality of life for residents through a reduction of noise and air quality impacts.

Recommendations

I recommend that Cabinet:

- a. Approves the adoption of a Staffordshire County Council Public Electric Vehicle Charging Infrastructure Strategy (referred to as Strategy from here on in) as attached in Appendix 1.

- b. Notes that additional guidance on EV strategies may be issued by the DfT in connection with Local Transport Plans and to agree that any minor required text changes are delegated to the Director for Economy, Infrastructure & Skills, in consultation with the Cabinet Member for Highways and Transport and the Cabinet Member for Environment, Infrastructure and Climate Change to implement.

Cabinet – Wednesday 18 January 2023

Staffordshire County Council Electric Vehicle Charging Infrastructure Strategy

Recommendations of the Cabinet Member for Highways and Transport and the Cabinet Member for Environment, Infrastructure and Climate Change

I recommend that Cabinet:

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Local Member Interest: N/A

Report of the Director for Economy, Infrastructure and Skills

Reasons for Recommendations:

Background

1. Acknowledging that transport is a major contributor to the climate, health and ecological challenges being faced, the UK Government in June 2019 announced ambitions for the transport network to be net zero by 2050. In the same year, the Council declared a climate emergency and committed to ensuring that the authority is net carbon neutral by 2050.
2. The following year saw the government's Road to Zero Strategy bring forward a restriction on new cars powered solely by petrol or diesel internal combustion engines by 10 years, to 2030. This heralded a step change in the transition to EVs for private transport and the need for an EV charging infrastructure able to accommodate the shift without causing social or economic barriers.
3. In March 2022, a national EV infrastructure strategy (Taking charge: the electric vehicle infrastructure strategy) was published which committed an additional £620 million to support the transition to EVs. The

government strategy sets out clear responsibilities for local authorities and emphasised their critical role in the rollout of charge points and enabling the transition through the integration with other transport modes in order to meet community needs. This national strategy set out the ambition that, as a minimum, 300,000 charge points across the UK by 2030 were to be made available.

4. Figures from Zap-Map outline that at the end of September 2022, there were 34,860 electric vehicle charging points across the UK, across 20,888 charging locations. This represents a 35% increase in the number of charging devices since September 2021.
5. To support the move to EVs, an EV charging infrastructure network is essential; SCC commenced a concerted effort in 2019-20 to kick-start EV charging for the public but then COVID-19 struck, and this early work was stalled.
6. SCC re-invigorated this work in late 2021 through commissioning Amey Consulting to explore existing and future technologies, funding, procurement and delivery methods. Current and future demand for EV charging infrastructure across Staffordshire was also established, and from this demonstratable demand, the propensity to use EVs was mapped. This analysis formed the basis of the location selection for EV charging infrastructure that fed into the final output of an Implementation and Action Plan. Additionally, all District and Borough councils were supported by bringing everyone together to increase understanding, provide a framework, and assist in the decision-making process.
7. It is recognised that electricity may not be the only type of fuel going forward (e.g. hydrogen), but this Strategy deliberately focusses on EV aligned to national policy, and that future fuels such as hydrogen will be picked up separately, such as through our A50/A500 corridor project.

EV Charging Infrastructure Rollout

8. Early adopters of EVs have generally had provision to charge whilst parked off-street at home. Further, the private sector are delivering many charge points which provide mainly top up charging at destinations such as supermarkets and a number of rapid charging hubs for in-journey charging, for example at service stations.
9. Research conducted by Ordnance Survey, Zap-Map and Field Dynamics has identified that across Staffordshire, on average 75% of households have access to off-street parking and of those households that do not have off-street parking, on average only 3% of households are within a

5-minute walk from a public charge point. The 97% of households that do not have access to off-street parking and are not within a 5-minute walk of a public charge point equates to approximately 92,000 Staffordshire households.

10. A public charging network is needed to provide practical alternatives to home charging to ensure that those without access to off-street parking are not disadvantaged. Failure to provide alternatives could delay the transition to EVs for many Staffordshire residents. For residents without the ability to charge EVs off-street, a number of alternative options to home charging will be important in enabling a transition to EV use.
11. For greatest impact in meeting requirements for supporting those who wish to switch to EVs, the Strategy outlines how local authorities could support and coordinate the installation of charge points at workplaces or retail parks, improving EV facilities at off-street parking locations and especially installing charge points in local authority owned and managed car parks.
12. It has been indicated by the UK Government that further policy direction will be released that will focus on EVs and EV charging infrastructure in the next 12-24 months, along with funding to continue support for local authorities in their journey to decarbonisation. If required, the Council's EV Strategy will be adjusted to take into account emerging legislation and technology.

Timescale

13. The Department for Transport has set a key date of 2030 to have 300,000 public charge points in the UK.
14. As of October 2022, there are three hundred public charge points in Staffordshire, and therefore the task is to grow this number by approximately three thousand charge points in Staffordshire over the next seven years. The majority of this will be delivered by the private sector, but this strategy helps co-ordinate how that will happen in a managed way over the next few years.
15. It is anticipated that a funding opportunity will arise in early 2023 and therefore the adoption of this Strategy now will ensure that Staffordshire is in the best possible position to submit a suitable bid.

Alternative Options

16. In developing this Strategy, alternative options have been considered, including allowing the emerging EV charging industry to take the lead.

However, this is likely to lead to an ineffective EV charge point network across the county focussed on commercially 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 county.

17. The UK government has made it clear that local authorities have a significant role to play in delivering EV charge points 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.

Risks Identified

18. The transition to EVs is a risk to the energy system not only in the county 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.
19. The authority is mindful of the need to ensure that our pavements are safe for all pedestrians (particularly those with visibility impairments) and other highway users, and that we do not expose the County Council or individuals to excessive liability or risk and therefore trailing cables across a footway will not be authorised.
20. 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.
21. The Council is aware that EV charge point operators are experiencing delays due to issues within their global supply chain. Prolonged delays in installing EV charge points 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.
22. The Council declared a climate emergency and committed to ensuring they are net carbon neutral by 2050; this Strategy complements the Government's ambitious plans to achieve net zero by 2050. Adopting the Strategy will support the climate change action plan, 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 its targets.

Legal Implications

23. There are no immediate legal implications from this report, but it is recognised that legal support in the form of Property and Contract advice will be needed going forward especially in relation to finance and private investment contracts.

Resource and Value for Money Implications

24. The Council will look to utilise relevant funding from the Department for Transport (DfT), the Office for Zero Emission Vehicles (OZEV) and explore commercial partnership opportunities. This will allow the funding to be deployed to support the widest distribution of EV charge point solutions.

25. It is understood that DfT will release revenue funding to all Local Transport Authorities to enable the recruitment of staff resources to drive forward the installation of public charge points. Whilst we wait for further information on this DfT initiative, it has been agreed that a lead officer position will be funded from the climate change fund so that there is no delay to progressing this priority activity.

26. An investment plan that sets out a long-term delivery strategy will be written, and as such, specific financial decisions based on the available funding will need to be made for any schemes that are brought forward.

27. The Council will outline a clear procurement process for EV charge points at locations that are on Council owned land and will engage with operators to assess the level of interest in the installation of EV charge points across the county.

Climate Change Implications and Health Implications

28. The Council recognises that climate change is the biggest environmental challenge facing the world today and has reflected this by identifying climate change as one of the five key principles in the Council's Strategic Plan. SCC recognises that actions are needed to minimise the Council's carbon emissions. These actions are to either stop carbon emissions, develop ways to remove carbon that is already in the atmosphere (sequestration) or help communities and business prepare for the impact of changing climate (adaptation). This is a key priority of the Staffordshire Sustainability Board (SSB), and this Strategy supports the role of the SSB in that it can influence change and help ensure that Staffordshire is net carbon zero by at least 2050.

29. In Staffordshire, transport contributes c40% of the c5.8 million tonnes of annual Carbon emissions. EV adoption forms a critical part in tackling climate change, and the decarbonisation of transport in Staffordshire is recognised within the revised Staffordshire's 2021-2025 Climate Change Action Plan. Reducing emissions by supporting infrastructure for zero emissions vehicles like charge points is one of a number of key actions highlighted in the Climate Change Action Plan. In addition, the possibility of providing incentives for EV owners to purchase solar panels and therefore generate their own electricity to power their vehicles will be explored.
30. The largest environmental risk to public health in the UK is poor air quality as it can cause chronic conditions such as cardiovascular and respiratory diseases as well as lung cancer, leading to reduced life expectancy.
31. The biggest source of nitrogen oxides (NOx) in the UK is from road transport, with the main source of exposure being at the roadside. Additionally, it also produces harmful air pollutants including volatile organic compounds (VOCs) and sulphur dioxide (SO2).
32. Roadside emissions can also negatively impact ecology from deposition of Nitrogen to the environment can change soil chemistry and affect biodiversity in sensitive habitats. Also nitrogen oxides are also precursors for the formation of ozone, which can damage crops through oxidative damage to vegetation.
33. Through supporting and facilitating the switch from petrol and diesel vehicles to carbon zero fuelled vehicles, such as EVs, the Council will not only contribute to the reduction in nitrogen oxides emissions across the county but also contribute towards the reduction in the amount of harmful air pollutants such as those listed in paragraph 7.
34. All residents and visitors will benefit from the reduction in air pollution and noise pollution as EVs can be quieter than petrol and diesel equivalents, however people who live within close proximity to a road, and / or suffer from respiratory conditions will benefit more.

Community Impact

35. The Community Impact Assessment for the Staffordshire County Council Public Electric Vehicle Charging Infrastructure Strategy can be viewed in appendix 3. The proposals represent a positive impact since all members of the community will benefit through enhanced quality of life and well-being through a cleaner, greener and more resilient local environment by the County Council encouraging the adoption and roll out of EVs.

Prosperous Overview and Scrutiny Committee Feedback

36. The EV Strategy document was considered by Prosperous Staffordshire Overview and Scrutiny Committee at its meeting on 9 January 2023. Committee Members asked a range of questions and made suggestions on items of importance during the implementation phase such as appropriate consideration for mobility impaired users, close working with National Grid, avoidance of EV charge points being blocked by cars once charged and the need for a range of charging options and the installation of infrastructure within the highway boundary. Through the answers supplied to the Committee and the assurances of the actions to be undertaken by the newly appointed EV Infrastructure Delivery Manager, the Committee supported the strategy document proposal.

Conclusion

37. While it is not SCC's role to install and maintain the charging network, as the highways authority, a major land and asset owner, and our commitment to achieving net zero, we do have an important coordinating and facilitating role.
38. This Strategy therefore sets the scene for why we need to act, explains where we are and outlines the role that Staffordshire County Council will play across the county through analysing various areas including policy, funding and technology that will impact the charging infrastructure network.
39. The Strategy also delves into the current and forecasted demand for each of the Districts and Boroughs and for the whole of Staffordshire, to inform strategic decision making. This document recommends broad locations across the county that should be considered for charging infrastructure and the optimal solutions that are most appropriate to match current and anticipated demand.
40. The Council will continue to engage with residents and ensure that they have access to informative material about EVs and EV charging infrastructure.
41. 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 including the emerging Local Transport Plan.

List of Background Documents/Appendices:

Appendix 1 - Staffordshire County Council Public Electric Vehicle Charging Infrastructure Strategy

Appendix 2 - EV Charging Infrastructure Strategy (Overview)

Community Impact Assessment

"Reducing emissions from road transport: Road to Zero Strategy" - [Reducing emissions from road transport: Road to Zero Strategy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy)

"Taking charge: the electric vehicle infrastructure strategy" - [Taking charge: the electric vehicle infrastructure strategy \(publishing.service.gov.uk\)](https://www.gov.uk/government/publications/taking-charge-the-electric-vehicle-infrastructure-strategy)

Outcome and response to ending the sale of new petrol, diesel and hybrid cars and vans - GOV.UK (www.gov.uk)

"Clean Air Strategy 2019" - [Clean Air Strategy 2019 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/clean-air-strategy-2019)

Contact Details

Assistant Director: Clive Thomson, Assistant Director for Connectivity and Sustainability

Report Author: Richard Rea
Job Title: Interim Head of Transport Operations and Future Connectivity

Telephone No.: 07870 995680
E-Mail Address: richard.rea@staffordshire.gov.uk