

Report to:

**CLIMATE CHANGE AND ENVIRONMENT
SCRUTINY COMMITTEE**

Relevant Officer:

Scott Butterfield, Strategy Policy and Research Manager

Date of Meeting:

27 September, 2023

ELECTRIC VEHICLE CHARGING IN BLACKPOOL - UPDATE

1.0 Purpose of the report:

- 1.1 To present an overview of the current Electric Vehicle Charging situation in Blackpool, and plans to improve provision.

2.0 Recommendation(s):

- 2.1 The Committee notes the report;
- 2.2 The Committee requests a further update prior to the launch of the procurement exercise associated with Local Electric Vehicle Infrastructure (LEVI) funding.

3.0 Reasons for recommendation(s):

- 3.1 To ensure the continued rollout of Electric Vehicle chargepoints in support of the UK government's policy ambitions on increasing Electric Vehicle uptake.
- 3.2a Is the recommendation contrary to a plan or strategy adopted or approved by the Council? No
- 3.2b Is the recommendation in accordance with the Council's approved budget? Yes
- 3.3 Other alternative options to be considered:

None

4.0 Council Priorities:

- 4.1 The work supports both of the Council's priorities and delivery of the Climate Emergency declared in 2019.

5.0 Background Information:

- 5.1 In November 2020, the UK government announced a halt to sales of new petrol and diesel cars by 2030, and of new hybrid cars (those with both a petrol/diesel engine and a small battery-operated electric engine) by 2035. Since then, sales of Battery Electric Vehicles (BEVs), which operate purely by electric power drawn from a battery, have grown substantially. The BEV market share of new car sales grew from 12.5% at the start of 2022 to 32.9% in December. In the thirteen years since the release of the original Nissan Leaf, increased confidence in used

car battery capacity has also led to higher used BEV sales. 30,500 changed hands in Quarter 2 of 2023, compared to around 40,000 in the whole of 2021, although this currently represents just 1.7% of the used car market. In addition, the government has consulted on a Zero Emission Vehicle mandate, which would require manufacturers to deliver an increasing market share of zero emission cars and vans in the run up to 2035. The government consultation document notes that ZEV mandates have successfully spurred greater ZEV availability and choice for consumers and higher uptake in the United States, Canada and China.

- 5.2 With the cost of new and used BEVs becoming more affordable, and greater confidence in battery life, other barriers to take-up are becoming more significant. Although the average distance electric cars can travel on a single charge continues to increase, reaching 219 miles for new car sales in 2023 compared to the UK average daily distance of around 20 miles, drivers undertaking longer journeys, those with small commercial vehicles including taxis and vans, and those without home charging facilities, need to be confident in the charging infrastructure that is available before switching to BEVs.
- 5.3 The higher cost of public charging compared to charging at home continues to be an issue. Some energy providers offer cheap domestic overnight rates of around 9p per kWh (Kilowatt Hour), meaning a car with a 64 kWh battery could travel 240 - 310 miles (depending on weather and driving style) for £5.76, compared to a cost of anywhere between £18.56 - £48.00+ for public charging, depending on the Charge Point Operator (CPO) and type of charger being used.
- 5.4 The type of charger used is a key factor in public charging costs, with faster chargers costing more. Devices are typically referred to by the amount of power they can output. Definitions vary, but the ones currently being used by parties involved in the government’s Local Electric Vehicle Infrastructure (LEVI) initiative are:

Name	Power output	Description
Low powered	<3.7 kw	Standard plug socket – AC charging
Standard	3.7 - <8 kw	Lamp post chargers, Domestic BEV chargers, some car park chargers – AC charging
Fast	8 – 49 kw	Most car park chargers (typically 11kw or 22kw) – usually AC charging
Rapid	50 – 149 kw	Supplied with their own charging cable to support faster DC charging
Ultra-rapid	150 + kw	Specialist chargers, most Tesla Superchargers

These are installed on different sites for different purposes. Slower chargers are cheaper, minimise demand on the electricity grid, take less time to install, and are suitable for “destination” long stay car parks. A 50kw charger would add around 100 miles of range in 30 minutes when used to “top up” the battery, with the expectation that longer journeys would fit charging in around comfort breaks. A 7kw charger would fully charge most cars overnight, as long as the charge in the battery had not dropped below around 20%.

- 5.5 The distribution of charging infrastructure across the country has mostly been left to the private market, and as a result has skewed towards more affluent areas with higher numbers

of BEVs. The North West currently has the lowest proportion of chargepoints per head of population in the UK except for Northern Ireland. According to government statistics at July 1st 2023, Blackpool had 31 publicly-available charge points, twelve of which were provided by the Council through Local Transport Plan funding. At 22 devices per head of population, this figure is in the bottom 20% of all Local Authority areas in Great Britain. There are currently only three rapid chargers in the borough, one of which (New Larkhill Street) was installed by the Council, although the Council is in dialogue with private operators interested in installing ultra-rapid chargers elsewhere in the Borough.

- 5.6 Most Council devices are provided on car parks in Blackpool town centre, with other sites including @thegrange, Blackpool Sports Centre, New Larkhill Street and Bispham Village. Whilst we are unable to access complete data on Electric Vehicle (EV) charging in the borough, and some of the devices we have provided historically do not generate back office data, we can use available data to report on use of the chargepoints. In the twelve months prior to July 2023 there were 2148 charging sessions. The most-used chargers were at Central, Talbot Road, then West Street, and then Blackpool Sports Centre. Data typically records time and duration of charge; however the data from central car park does not record this currently. From the sites which record time; 98% of charges were undertaken during the day, the highest proportion of which started between 8 and 10 am, although parking policies at some sites currently deter overnight parking and charging. Using a performance metric in wide use by the industry, the proportion of time chargers were in use varied from 7% in February 2023 to 16% in September 2022. Anecdotal evidence suggests that charger reliability is an issue in Blackpool, with issues around the level of service provided by some CPO's.
- 5.7 The Council adopted an Electric Vehicle Strategy in February 2023, covering the period until 2028. At the time of adoption, various statistical models developed by national bodies of predicting the number of charging devices needed in that time frame varied widely in their predictions, with one suggesting that Blackpool would need up to 2787 sockets (a charging device can have up to two sockets). Based on our experience of predictive models tending to overstate requirements for Blackpool, and further consideration of the methodologies used, the strategy set a target of 210 additional sockets. Since this time, the NEVIS model created by Cenex, who are one of the support bodies assisting the government with the rollout of chargepoints, has been revised and improved, with suggested numbers of between 478 and 616 based on their preferred scenario. Further discussion is needed with relevant parties as part of the funding application process to assess whether we should plan to over-achieve against the target in our strategy. It is important to note that these targets **exclude** provision of further workplace charging or facilities associated with planning requirements around provision of EV infrastructure in new developments.
- 5.8 The strategy's delivery relies on accessing LEVI funding, which is divided into "capability" (revenue) funding and capital funding. A total allocation of £360k of capability funding has been spread over three years, until 2024/25. This is intended to ensure sufficient staffing resource is available for the project. The Council has allocated funding for two new positions in the Climate team, a Project Manager post and a Graduate Climate Officer post. The first attempt to recruit a Project Manager post was unsuccessful, in common with a number of authorities across the country. This has delayed consideration on the process to recruit a Graduate Climate Officer and poses a capacity challenge. The remaining funds are being used for new GIS software tools to help us determine the appropriate charging solutions for locations, and for staffing resources across the Council crucial to the LEVI funding's successful delivery, primarily in the Procurement and Asset Management (electrical

engineering) teams, but also across Highways, Communications, Legal services, Parking Services and others.

- 5.9 The Council has been placed, alongside most other UK Councils, in LEVI funding Tranche 1, the earliest tranche of money being made available. The potential funding allocation is worth up to £1.7 million, subject to the Office for Zero Emission Vehicles agreeing a delivery plan. Part of the requirement is to leverage a substantial amount of private sector funding from the successful CPO following a tender process. The LEVI fund criteria primarily covers the provision of low powered sockets for residential areas, but allows for a minority of sockets to be rapid chargers also accessible to tourists and the taxi trade. As the timescale for a contract award would take at least another ten months, the Council will continue to install a limited number of chargepoints pending any funding award, including providing 25 new sockets as part of the Blackpool Central carpark development due to complete in 2024. Plans for other sites are also being worked on.
- 5.10 Under the Council's current model of charger installation, there is currently no funding available for equipment replacement and maintenance beyond the installation warranty, with fast charging being priced on the basis of recovering the cost of energy used. Other associated costs such as staff time and bay marking have also not been incorporated into cost calculations. To resolve this, the finance team has assessed the costs of this "own and operate" model where the Council would continue to provide, own and pay for maintenance of the chargers and electrical infrastructure, with a CPO providing maintenance and retail support. However, based on current use the cost that the council would need to charge the consumer would be prohibitively high. As a result, the tender exercise will seek a provider for a "concession" arrangement where the LEVI funding ensures the delivery of all necessary infrastructure other than the charge point, which the Council will own. The CPO will be granted a site lease to provide charging services. Sites where the Council has already installed chargers would transfer to the CPO winning the tender exercise once existing contracts expire.
- 5.11 In awarding the contract to the successful CPO, the procurement exercise will prioritise the following key areas:
- Minimising the cost of charging to users, as prioritised to respondents of the consultation on the EV Strategy;
 - Maximising the use of the Residential Charging Sites (RCS) model (see 5.13);
 - The total extent to which a CPO can meet the Council's ambition of having all households in Blackpool which are without a driveway within five minutes' walk of a chargepoint;
 - The total value for money represented by the contract i.e. the extent of the private sector investment proposed.

Other considerations include that carbon emissions are considered at all points of the lifecycle of the installed chargepoint (design, manufacture, transport, installation, operation and decommissioning); that the Council has final say on the selection of chargepoint locations; the length of the contract and associated leases; retention of influence over the price of the tariff and potential to use "smart tariffs" offering cheaper rates at off-peak times; and access to usage data.

- 5.12 The Council's current preferred delivery model is to use Residential Charging Sites (RCS). These "hubs" would be primarily sited on existing Council car parks, including those associated with

sites providing specific services. Arrangements would be made for 24 hour charging to be accessible with additional provision for adequate lighting and security measures such as CCTV. In some cases, where the RCS would be sited on a car park which charges for parking, arrangements will need to be developed to ensure that the total cost to residents using the facilities is limited to the cost of the charging and not the parking. It is likely that some sites will also need power supply upgrades to be agreed with Electricity North West on a site by site basis and funded via the LEVI grant.

5.13 A data analysis is underway to determine the extent to which Council sites can deliver the provision level needed. It is recognised that significant areas would not be served by this approach. To fill these gaps, a hierarchy of alternative options is being developed, which may include some of the following options:

- Use of other community facilities and private car parks with 24 hour access, delivered via associated leasing arrangements, to facilitate an RCS;
- Access to rapid chargers with minimal drive times at a preferential rate;
- Delivery of on-street charging facilities where there is sufficient room for these not to impact on existing parking (e.g. wide roads with properties on one side). The Council is piloting the use of a dataset to help with the identification of these sites.

Another option for users without offstreet parking, which would not be included in the arrangement with the CPO, would be to promote the adoption of a domestic charger-sharing scheme such as those offered by Co-charger and other similar apps. In addition, Lancashire County Council are currently trialling measures to enable the safe provision of charging from a domestic property over a footway, which involves the installation of a gully system in pavements. The Council will liaise with the relevant officers to follow this trial as it continues and assess its suitability for Blackpool.

5.14 The RCS charging model contrasts with other localities that have chosen to provide extensive on-street charging facilities as a primary option. Guidance suggests that the government favours an on-street model. However, it currently represents the best balance between supporting the agenda and pragmatism that balances all residents' needs, including non-BEV car and van drivers.

Does the information submitted include any exempt information? No

6.0 List of Appendices:

6.1 None.

7.0 Human Resources considerations:

7.1 None.

8.0 Equalities considerations and the impact of this decision for our children and young people:

8.1 An Equality Analysis was undertaken within the strategy development process. This

particularly notes the importance of well-lit, secure charging facilities for vulnerable motorists charging at night, and the role of the new Accessible Chargepoint standard PAS1899 in ensuring that motorists with disabilities are able to charge their vehicles. Whilst our aim should be to ensure sites are accessible to PAS1899 wherever possible, sites would require more space and potentially manual support for users.

8.2 There are no direct equalities implications arising for children and young people. Provision of charging facilities supports the transition to a low carbon economy, and contributes towards a more sustainable future for future generations.

8.3 The existing Equality Analysis undertaken on the EV strategy will be reviewed and updated to explore the RCS model in more detail, and actions identified will be included in the Delivery Plan.

9.0 Financial considerations:

9.1 The intention is to use the LEVI funds and the existing Local Transport Plan allocation for EV infrastructure without further recourse to Council funding. £150k of Local Transport Plan capital funding is available for 2024/25, with further funding from this source remaining a possibility.

10.0 Risk management considerations:

10.1 *Risk of insufficient provision leading to lower than expected take-up of EVs, or residents using dangerous charging solutions.* At this stage of the EV adoption process in Blackpool, with some narrow thoroughfares and permit parking on many streets, delivering substantial on-street charging facilities would be difficult to implement consistently. It would also displace other motorists or risk “bay blocking” where non-electric cars park in electric-only spaces. However, there is a risk that the performance target of all properties being within 5 minutes’ walk of a charger will not be met. This would reduce charging convenience and incentives to switch to EVs. There is a further risk of people trailing cables out of windows and over footways creating a trip hazard, which has been witnessed locally. Using extension cables to supplement car charging cables also creates a fire risk.

10.2 *Risks associated with batteries.* In contrast to smaller battery-based transportation, data analysis from the US shows that the risk of fires in electric vehicles is substantially lower per 100,000 vehicles than in petrol and diesel cars. However, the nature of the fires means they take longer to burn themselves out, contain more toxins, and are more difficult to extinguish with current fire-fighting equipment. Careful consideration therefore needs to be given to siting chargers appropriately to minimise risks. The Council is putting in place a risk assessment process which considers mitigation measures as part of the installation of new devices.

11.0 Sustainability, climate change and ethical considerations:

11.1 The Council’s Sustainability Impact Assessment process was used throughout the EV strategy’s development. The scheme will lead to an increase in electricity use locally, but this can be

accommodated within the National Grid's transition from fossil fuel derived power. There could be an impact on the capital cost of schemes as they seek to include electric charging provision. It has the potential to positively impact on the number of journeys made to Blackpool by EVs as provision will be promoted and made available via chargepoint provider and third party apps e.g. Zap Map, Plugshare.

12.0 Internal/ External Consultation undertaken:

12.1 Stakeholder events were held in March 2022 with key local businesses and organisations, which have influenced the strategy. Drop in sessions for Councillors were held in June 2022 to explain the planned strategy and take comments. A public engagement exercise on the draft strategy took place with the findings used to shape the document. Further public engagement will be undertaken where required.

13.0 Background papers:

13.1 None