

Birmingham City Council

Report to Cabinet

9th November 2021



Subject: City-Wide Electric Vehicle Charge Point Strategy

Report of: Acting Director, Inclusive Growth

Relevant Cabinet Member: Councillor Waseem Zaffar-Transport and Environment
Councillor Tristan Chatfield - Finance and Resources

Relevant O &S Chair(s): Councillor Liz Clements - Sustainability and Transport
Councillor Mohammed Aikhlaq - Resources

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Are specific wards affected?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No – All wards affected
If yes, name(s) of ward(s):		
Is this a key decision?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
If relevant, add Forward Plan Reference: 009090/2021		
Is the decision eligible for call-in?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the report contain confidential or exempt information?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If relevant, state which appendix is exempt, and provide exempt information paragraph number or reason if confidential :		

1 Executive Summary

- 1.1 This report seeks approval to adopt the City-wide Electric Vehicle (EV) Charge Point (EVCP) Strategy (2021-2032) ("Strategy") provided as Appendix A. The Strategy covers the existing initial roll-out of 197 EV fast and rapid chargers (394 charge points) in strategic locations, as previously approved by Cabinet on 24th January 2018 in the report titled "EV Charge Point Network Development Programme – Full Business Case". This initial phase will kick-start the 'charge and go' approach of the Strategy, across the city centre and within local communities in the Birmingham area, to be followed by further deployment of

charge points until 2032. A key focus of the Strategy is on enabling the widest possible public access to EV charge points. Therefore, they will continue to be placed at strategic locations, whilst also targeting the use of innovative charge point technologies that will allow installation in accessibility-challenged areas, including areas where there is low electric grid power coupled with residential areas of high-rise flats and terraced housing where there is limited or no off-street parking.

- 1.2 The Strategy has been co-developed with the Council's procured EVCP Strategic Delivery partner, ESB Energy. They are currently installing the initial 394 Office for Low Emission Vehicles (OLEV) funded fast (22kw full charge within 2 hours) and rapid (50kw full charge within 40 minutes) network, to be completed by 30th September 2022, and going on to provide for further delivery, to ensure that a minimum of 3,600 EV charge points are installed by 2032.
- 1.3 The Strategy will align with the EV market development, and that of the Birmingham Transport Plan priority objectives to achieve significant modal shift from private car usage to public transport, walking and cycling, as well as reducing traffic congestion. The Strategy recognises the role of private sector charge point provision (e.g. private land, supermarkets, petrol stations) towards delivering the 3,600 charge point target. Accordingly, ongoing monitoring of EV vehicle take up and usage will also inform the roll-out of EV charge points.
- 1.4 The Strategy envisages EV charge points being installed at strategic sites on the highway, public car parks, and public land, within the city centre and within local communities (subject to the relevant approvals, permissions and licences), to ensure the widest possible public access.

2 Recommendations

- 2.1 Approves adoption of the City-wide Electric Vehicle Charge Point (EVCP) Strategy, provided as Appendix A.
- 2.2 Notes that a key focus of the Strategy is to address residential areas that have low electric grid capacity, coupled with limited off-street parking which is likely to impact equality of accessibility to EV charge point provision, through on-going public consultation and through the use of communication tools such as 'Be-Heard' in order to gauge local community intent in the take-up of EV vehicles and the barriers they experience.
- 2.3 Authorises the Cabinet Member for Transport and Environment, and the Cabinet Member for Finance and Resources, with the Acting Director, Inclusive Growth and Director of Council Management to accept further government funding up to a limit of £1m, to access emerging and innovative EV charge point solutions that complement the implementation of the EVCP Strategy, consistent with the Council's Financial Approval Framework.
- 2.4 Delegates authority to the Acting Director, Inclusive Growth, the Assistant Director Corporate Procurement or their delegate, in conjunction with the Director

of Council Management or their delegate, and the City Solicitor or their delegate, in consultation with the Cabinet Member for Transport and Environment, and the Cabinet Member for Finance and Resources, to approve any procurement strategies and subsequent contract award decisions required to support the implementation of the recommendations within this report.

3 Background

- 3.1 The Birmingham Transport Plan, sets out the big moves which need to be made to achieve the vision for Birmingham's transport as a sustainable, green, inclusive and go-anywhere network. Safe, healthy environments are needed to make active travel – walking and cycling – the first choice for people making short journeys. A fully integrated, high quality public transport system will be the go-to choice for longer trips. Where these choices are not possible, electric vehicles will be an important part of providing innovative, carbon neutral and low emission alternatives for supporting sustainable and inclusive economic growth, tackling climate change and promoting the health and well-being of Birmingham's citizens.
- 3.2 The declaration of a climate emergency and the introduction of Birmingham's Clean Air Zone is a signal of our intention and an important first step towards establishing a net zero emissions provision of EV charge points in assisting the modal shift required to achieve this.
- 3.3 Over £1 billion of investment is taking place in walking, cycling and public transport projects in Birmingham. This will support the significant modal shift required to enable the reduction in car use required for Birmingham to meet its climate emergency objectives. In line with 3.1, modelling in 2019 showed that to meet 2030 emission targets, a 40% reduction in car use overall within Birmingham is required by 2030, compared to 2018 levels, amongst other measures. Where car use is a necessity, enabling the transition to electric vehicles will be a sustainable alternative to public transport, walking and cycling.
- 3.4 In August 2019 the Council procured ESB Energy as an EV Charge Point Network Development Partner having secured an OLEV grant of £2.92m to deliver a 'backbone' EV charging infrastructure of 197 chargers (394 fast and rapid charge points) by 2022, as the first phase towards meeting market need. Delivery of this work is underway.
- 3.5 The Phase 1 fast and rapid charge point roll out to September 2022 will utilise locations on highway, public car parks, public land and some private sites in strategic locations where ESB are responsible for any lease arrangements. This is alongside initial private sector development on private land such as supermarkets, fuel stations and private car parks.
- 3.6 Phase 2 will continue delivery in line with market growth, funded through ESB investment, on the highway, public car parks, public and private land, as well as private sector intervention on private land. This will include roll out of fast and rapid EV charge point hubs across local areas, with a focus on challenging areas such as

terraced housing/blocks of flats where the power capacity or land availability is not present. This phase will therefore deploy innovative charging technology such as lamp post and/or inset kerbstone low power level residential EV charging, in consultation with the Council's Highways PFI Contractor where applicable.

- 3.7 An agile approach to EV charging infrastructure will be taken to ensure on-going city-wide charging infrastructure that aligns to public need. This is based on modelled numbers using Transport for West Midlands (TfWM) data, Council traffic modelling data, and Department for Transport (DfT) data, in regard to the number of charge points to be provided by 2032 at around 3,600, if the Council is to achieve the ambitious levels of modal shift it anticipates, as a result of the major road infrastructure changes, plus road and transport management systems planned for under the Transport Policy.
- 3.8 If Council objectives for modal shift are only partly achieved then the provision of charge points will need to rise to around 5,000 (or much higher if modal shift is not achieved at all), to accommodate market demand for charging.
- 3.9 Other uncertainties may impact the number of charge points required. The Strategy sets out how market development will be monitored throughout to ensure that EV charge point infrastructure is being deployed where it is needed and continues to build on best practice. The following factors will be monitored:
- EV uptake among key user groups, including taxis, residents, commercial fleets and car clubs, as well as visitors to the city;
 - Vehicle stock and usage trends as indicators of modal shift;
 - Progress in the number of charge points installed and geographic coverage;
 - Available data on charging behaviour and consumer preferences; and
 - Technology progress that may impact charging behaviours or infrastructure requirements.
- 3.10 The core principles underpinning the development and delivery of the city-wide charging Strategy are to provide a network that:
- Follows the best practice approach for choice of technology
 - Aligns with consumer preferences and current deployment trends
 - Aligns with wider aims within the Council, including reducing reliance on private cars and encouraging modal shift (changes in travel away from private cars and towards public transport, walking and cycling)
 - Is accessible and equitable for all
- 3.11 The Strategy prioritises areas of the city for rapid hub deployment based on indicators of high charging demand for key use cases:
- **Taxi charging:** based on number of taxis ranks in an area
 - **Residents without off-street parking:** based on the share of cars and vans in an area that have low access to off-street parking
 - **En-route charging:** based on car and van traffic levels on major roads

- **Destination charging:** based on the number of amenities in an area (e.g. supermarkets, cafes, hotels, shopping centres, leisure facilities etc) and number of trips ending in an area

- 3.12 Figures for delivery of a comprehensive public charging network can only be achieved in collaboration with the private sector. The Strategy outlines the Council's approach to EVCP deployment, whereby the 3,600 total charge points projected by 2030 include those deployed by the Council, alongside private sector and other regional stakeholders interventions, e.g. TfWM charge point plans for their 'Park & Ride' scheme. The Strategy outlines how the Council and its EVCP Network Delivery Partner will work with wider stakeholders to both encourage deployment and to guide our own deployment approach.
- 3.13 Responding to Council financial pressures, the Strategy will be at 'nil cost' and no liability to the Council. This is addressed through the procured EVCP Network Delivery Partner (ESB Energy) contract in how the EVCP network is invested in, developed, owned, maintained and serviced by the EVCP Network Development Partner, with 24/7 customer support 365 days a year, with Key Performance Indicators relating to 99% uptime performance requirements, and run as a commercial operation throughout the contracted period to 2032. Whilst the current contract has revenue income, this is limited to charge point use only. For any future commercial opportunities, in regard to paragraphs 2.3 and 2.4, these will be investigated and assessed, providing more specific detail via the subsequent procurement strategy.
- 3.14 However, whilst the Council is aiming to reduce the overall level of congestion, private car use and encourage significant shift to public transport, walking and cycling, there are mitigations being put in place to minimise the impact of loss of parking charges, where parking fees apply to some parking bays being used for EV charging within the City centre. Actions include; reducing the number of charge point highway locations to be used to not exceed 14 sites, where existing car parking fees apply; minimising the use of car parking bays at each site for EV charging where existing parking fees apply; and only installing rapid chargers (which use one car bay per rapid charger) with 'one hour no return' signing. This will maximise the use of each car bay, but minimising the number of bays used. Additionally, the EVCP Delivery Partner contract secured following the 24th January 2018 Cabinet decision means that there is potentially a revenue income share generated from EV charging.
- 3.15 The level of Traffic Regulation Orders, lease agreements and processes for licences, and permits to enable works on the highway will increase as a result of implementing the EVCP Strategy, from the current level of applications to be able to accommodate the anticipated demand of 3,600 charge points by 2030. This is being managed within current workloads, and is anticipated to grow gradually over the next 5 years, but will be monitored to avoid any potential of delay in charge point installation in future, if demand increases exponentially at any time.

- 3.16 The Highway Authority provides enforcement of parking regulations on the highway. Implications for enforcement as a result of the implementation of the EVCP Strategy, where charge point users using car parking bays potentially overstay beyond the parking order limits, have been considered. Given that EV charge points are being installed within existing car park bay provision, the level of enforcement requirement will not go beyond the existing parking order requirements.
- 3.17 The EVCP Network Provider will arrange all private land agreements and manage their own rental/lease arrangements.
- 3.18 EVCP Network Partner is responsible for all works, signage, bay marking, associated contracted services to meet all relevant Highway, Transportation, Planning, Electrical , Engineering regulations and primary legislation, as well as additional future digital/technology services aligned with charge point technology with agreement/collaboration with the Council. All associated costs are fully met by them.
- 3.19 The EVCP network will only use 100% renewable energy. The price of power to be competitive with, or lower than the pence per KW/hr other region/UK charge point providers charge, with price incentives for key target groups e.g. taxis.
- 3.20 Whilst the Strategy contributes to the overall picture of carbon reduction, it is vital that modal shift away from private car usage is the focus of the Council's transport policy. Carbon reduction will not be a direct consequence of installing EV charge Point infrastructure, in itself. This must be coupled with significant reduction in overall levels of car ownership and usage. If not, the Council's wider aims regarding active travel, addressing network congestion and air quality cannot be achieved.

4 Options considered and Recommended Proposal

- 4.1 Do nothing – Should the Council not adopt a city-wide EVCP Strategy it will not be supporting the Council's commitment to be net carbon zero by 2030 and will not be doing all it can to drive modal shift from petrol and diesel cars to electric vehicles thereby reducing levels of NO2 pollution across the City. It will also help to deliver the main pillars of the Council's Plan as detailed in para 7.1 below.
- 4.2 Recommended Proposal – adopt the city-wide EVCP Strategy, which will provide clear strategic direction for deployment of a comprehensive charging network, and ensure continued monitoring and adaptation to public accessibility and market growth EV charge point requirements.

5 Consultation

- 5.1 Consultation has been undertaken with the Air Quality Clean Air Zone (Brum Breathes) Board, the Highways Authority and the Planning Authority.

- 5.2 TfWM and the West Midlands Combined Authority have been consulted with via direct engagement to ensure alignment with regional ULEV strategy and local plans for EV charge points located at Park and Ride sites.
- 5.3 Each identified charge point location is assessed against a criteria and consultation in regard to suitability and accessibility. This includes electric grid capacity assessment and approval from Western Power Distribution, as the Network Distribution Operator, and is the key determiner of any charge point location; road traffic flow levels and proximity to or on key routes within the city centre and local communities; the 'outline' design, technical specification of the proposed site, as well as use of site for EV charging with the Planning Authority, the Highways Authority or 'Landlord'; percentage of existing localised EV take-up; and access to local amenities.
- 5.4 The implementation of each highway charge point will be subject to standard Transport Regulation Order (TRO) which necessitates Ward Member and public consultation, and consultation with the Council's Highways PFI Contractor where applicable.
- 5.5 Charge points located at public car parks (including those owned by TfWM in regard to their Park and Ride scheme) and public land, including parking areas within public parks, will be subject to approval via the relevant Cabinet Members, Council Directorate and Public Sector management requirements and consultation processes, including local Councillors. Specifically, this will determine the lease arrangements for the area of land taken up by the charge points, are approved and signed off with the relevant public sector 'Landlord' and legal approvals, noting the need for individual site agreed length of lease according to the available life time of the public car park or public land location.
- 5.6 The EVCP Network Delivery Partner is responsible for consulting with and agreeing lease arrangements with Landowners where their charge points are to be located on privately owned land.
- 5.7 Throughout procurement and contractual arrangements and during assembly of the Strategy, the views of stakeholders such as the taxi trade, TfWM and the West Midlands Combined Authority, as well as local businesses have been gathered and incorporated. The Distribution Network Operator (Wester Power Distribution) have also been consulted regarding grid capacity and capability.

6 Risk Management

- 6.1 The risk register at Appendix B, notes that available suitable sites that meet relevant criteria, as a key risk, also outlining the mitigating actions that have been put in place.
- 6.2 The Council has addressed financial risk as noted at 7.3.1 and 7.3.2.

7 Compliance Issues:

7.1 How are the recommended decisions consistent with the City Council's priorities, plans and strategies?

7.1.1 The adoption of the City-wide EVCP Strategy will support the following City Council priorities from the Council Plan 2018-2022 (2019 update).

- Birmingham is an entrepreneurial city to learn, work and invest in
- Birmingham is a great, clean and green city to live in
- Birmingham is a city that takes a leading role in tackling climate change

7.1.2 The Strategy aligns with numerous Council strategies and plans including, but not limited to, the Birmingham Development Plan, the Birmingham Transport Plan, the Future City Plan, the forthcoming Parking Supplementary Planning Document and Route to Zero Taskforce priorities.

7.2 Legal Implications

7.2.1 Delivery of the Strategy includes the installation of a charge point network on public land. The relevant primary legislation covering decisions around locations of points and specification requirements for civil works on the public highway includes the Highways Act 1980; New Roads and Street Works Act 1991; Road Traffic Act 1974; Traffic Management Act 2004 and the Road Traffic Regulation Act 1984 including the use of Traffic Regulation Orders (TROs).

7.2.2 Under the general power per Section 1 of the Localism Act 2011, the Council has the power to enter into the arrangements set out in this report and are within the boundaries and limits of the general power of competence Sections 2 and 4 of the Localism Act 2011.

7.3 Finance Implications

7.3.1 There are no capital implications for the Council in implementing the city-wide EVCP Strategy as these are funded by the EVCP Network Provider through the OLEV grant or carried out at their expense and risk.

7.3.2 There may be revenue implications from the potential loss of parking charges where existing fees apply on the highway. However, locations have not been identified at this point and with mitigation actions, as set out in para 3.14, are included in the strategy to minimise revenue losses. This includes existing parking fee highway locations not to exceed 14 sites, minimising the use of car parking bays at each of these sites for EV charging where existing parking fees apply, and only installing rapid chargers with 'one hour no return' signing.

7.3.3 Staff resources to manage the EVCP Network Delivery Partner contract and the implementation of the EVCP Strategy are already covered within current funded Transport and Connectivity, Inclusive Growth Directorate posts.

7.4 Procurement Implications

7.4.1 No direct procurement implications arise from this report. However, noting the delegation to approve any future procurement strategy and subsequent contract award decision as set out in paragraph 2.4, that the Cabinet Member for Transport and Environment and Cabinet Member for Finance and Resources, agree any procurement implications arising from the implementation of the recommendations within this report and to be undertaken in accordance with the Council's standing orders relating to contracts and the delegation within recommendation 2.4 of this report.

7.5 Human Resources Implications

7.5.1 Not applicable.

7.6 Public Sector Equality Duty

7.6.1 An Equality Assessment has been undertaken for the City-wide EVCP Strategy, and a copy is included as Appendix C.

8 Appendices

List of appendices accompanying this report:

- Appendix A – The City-wide Electric Vehicle Charge Point Strategy
- Appendix B - Risk Register
- Appendix C - Equality Impact Assessment- EA number of EQUA714

9 Background Documents

- Cabinet report 24th Jan 2018 EV Charge Point Network Development Programme FBC Forward Plan number: 003724/2017
- Birmingham Connected White Paper (2014)
- Birmingham Transport Plan (2021)