

**Manchester City Council
Report for Information**

Report to: Environment, Climate Change and Neighbourhoods Scrutiny Committee – 7 September 2023

Subject: Manchester Electric Vehicle Charging Strategy

Report of: Strategic Director (Development)

Summary

To provide Members with an update on progress following the adoption of the Manchester Electric Vehicle Charging Strategy.

Recommendations

The Environment, Climate Change and Neighbourhoods Scrutiny Committee is recommended to consider and comment on the information in the report.

Wards Affected: All

Environmental Impact Assessment - the impact of the issues addressed in this report on achieving the zero-carbon target for the city

Transport accounts for the majority of emissions within the city and as a result if we are to meet the zero-carbon targets that have been set then there needs to be a transition to 'cleaner' vehicles. Expansion of the public electric vehicle charging network will assist in this transition.

Equality, Diversity and Inclusion - the impact of the issues addressed in this report in meeting our Public Sector Equality Duty and broader equality commitments

Actions set out in the Manchester Electric Vehicle Charging Strategy relate to the need for providing easily accessible public charging infrastructure to allow all residents the ability to charge their electric vehicles. This is particularly the case for the high number of residents that do not have access to their own drive or parking space to be able to charge at home and will, as a result, be reliant on the public charging network.

Manchester Strategy outcomes	Summary of how this report aligns to the OMS/Contribution to the Strategy
A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities	Sustainable transport choices will have a positive impact on the attractiveness of the city for investors and workers.
A highly skilled city: world class and home grown talent sustaining the city's economic success	Expanding the EV charging network will create job opportunities in a developing technology.
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	Providing a wide range of opportunities for the charging of EVs will make the transition to cleaner vehicles easier for more of the city's residents particularly those that do not have the ability to charge their vehicle at home.
A liveable and low carbon city: a destination of choice to live, visit, work	The expansion of the public EV charging network will assist the transition to cleaner vehicles thereby working towards the zero carbon targets set for 2038.
A connected city: world class infrastructure and connectivity to drive growth	Investing in the provision of more opportunities to charge EVs will contribute to creating a greener and more attractive city utilising modern technologies.

Full details are in the body of the report, along with any implications for:

- Equal Opportunities Policy
- Risk Management
- Legal Considerations

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Background documents (available for public inspection):

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

- EV Charging Strategy (MCC) – December 2022

- Taking Charge: the electric vehicle infrastructure strategy (HM Government): March 2022
- Greater Manchester Transport Strategy 2040 (GMCA): February 2017
- Greater Manchester Electric Vehicle Charging Strategy Infrastructure Strategy (TfGM): September 2021
- Our Manchester Strategy - Forward to 2025 (MCC)

1.0 Introduction

- 1.1 Manchester has a target to be a net zero carbon city by 2038. Transport is the largest contributor to UK domestic greenhouse gas (GHG) emissions, contributing 24% of UK domestic emissions in 2020 (of which 52% was contributed by cars and taxis)¹. Although the main policy direction to help combat transport produced emissions lies in reducing the need to travel, modal shifts towards active travel and the increased use of public transport there is an acceptance that cars will still be used for some journeys but in these cases the cars should be as least polluting as possible.
- 1.2 In 2030 the UK government is due to bring in a ban on the sale of new petrol and diesel cars. As a result there is expected to be continued and significant growth in the sale of electric vehicles (EVs) along with requirements for additional infrastructure to be able to charge these vehicles. Although it is expected that those residents that have access to off-street parking provision are likely to install their own home chargers there will be a need for an accessible and efficient public charging infrastructure network to be available to those without off-street parking facilities.
- 1.3 The Government's Taking Charge Strategy², published in 2022 seeks an obligation on local authorities to develop and implement local charging strategies to consider how to best assist in the delivery of an accessible public charging network. The Manchester Electric Vehicle Charging Strategy (MEVCS) has been developed to meet this requirement and to set out the council's main focus for the provision of EV charging infrastructure within the city.
- 1.4 The MEVCS, approved in December 2022, sets out the potential role of Manchester City Council (MCC) in assisting in the expansion of EV charging infrastructure along with potential opportunities for delivery, possibly in partnership with commercial suppliers. The main focus of the strategy is in relation to public charging although it does note that the council also has a role to play in transitioning its own vehicle fleet, encouraging growth through planning requirements for new developments and in generally raising awareness as well.

2.0 Background

- 2.1 The number of plug-in cars licensed within Manchester saw a substantial increase in growth in the last decade and by the end of December 2022 this amounted to 1,484 vehicles³. Fully electric and plug-in hybrid vehicles are expected to grow to over 140,000 cars⁴ in Manchester by 2038 to make up approximately 75% of the total fleet.

¹ [Transport and environment statistics 2022 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/transport-and-environment-statistics-2022)

² [Taking charge: the electric vehicle infrastructure strategy \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/114444/taking-charge-the-electric-vehicle-infrastructure-strategy)

³ DVLA

⁴ Local Area Energy Plan, Manchester 2021

- 2.2 The increase in EV registrations will have an impact on charging demands and the need for expanding public accessibility to charging infrastructure, either publicly or privately provided. Transport for the North have estimated that by 2030 when the ban comes into effect between 2,000 and 3,000 chargepoints will be required in Manchester. Data from the Department for Transport states that by April 2023 there were 155 public chargepoints within the city amounting to 28.2 public chargers per 100,000 people compared to 59.9 in nationally.
- 2.3 The vast majority of current EV owners are residents that have access to off-street parking and, as stated above, it is expected that they are likely to continue to charge at home using their own home chargers the majority of the time. This is considered to be the cheapest and most convenient method of charging private vehicles for most drivers. However, within Manchester over 60% of homes do not have access to off-street parking provision and these drivers will be reliant on the public charging network to enable them to transition to cleaner vehicles.

3.0 Main challenges

- 3.1 Although there is no statutory requirement for MCC to provide EV chargepoints the council sees its role as that of assisting the expansion of the public charging network to help fill the initial gaps in the infrastructure network until such time that it becomes viable for commercial operators to take over and become the primary suppliers. It is accepted, however, that in the long term there is likely to be a mix of publicly and privately managed/owned charging infrastructure to provide facilities for different customers with different charging needs.
- 3.2 There are currently 5 main types of chargepoints (ultra-rapid, rapid, fast, standard and slow) which allow the charging of vehicle batteries over varying different time periods with ultra-rapids being the quickest and slow being, as the name suggests, the slowest. These different types of chargepoints also have different electricity supply requirements ranging from as low as 3kW and under on a slow charger to over 150kW on an ultra-rapid charger.
- 3.3 As part of an initial programme it is proposed that the council assists in facilitating the installation of supplier owned, funded, maintained and operated EV charging infrastructure within its own car parks and at facilities with parking such as leisure centres, parks, libraries, etc. These are proposed to be predominantly 'fast' or 'standard' chargers (up to 22kW) which will allow users of the car parks to top up their batteries and, where the car parks are operational 24h hours a day, may also allow for overnight charging by residents. In locations where it is considered appropriate a small number of rapid chargers will also be installed as part of the overall programme.
- 3.4 The strategy is not proposing the introduction of on-street public chargepoints at this time although it is considered that such locations may be suitable for particular groups such as taxis/private hire vehicles (PHVs) as well as car club vehicles.

4.0 Public Charging Network

- 4.1 Greater Manchester (GM) has over 620 publicly accessible charging points (amounts to around 1,300 connectors as many chargepoints are dual headed)⁵ which are operated and maintained by a number of operators. Transport for Greater Manchester (TfGM) operate the publicly owned public EV charging infrastructure within the region under the Be.EV branding of which 30 chargepoints are located in Manchester. The network was originally installed in 2012/13 and there has only been small scale ad hoc expansions since then as grant funding opportunities became available. The publicly owned Be.EV network was reviewed and upgraded during 2019/20 when it was rebranded from GMEV to Be.EV.
- 4.2 The Early Measures project has so far delivered 23 publicly owned dual-headed rapid charging points within GM, with a further two charging points to be delivered this year to conclude this project. Within Manchester three locations were included under this scheme for public points with an additional point installed at a taxi rank for the sole use of hackney drivers.
- 4.3 The public charging network is also supplemented by a growing number of EV chargepoints provided by commercial operators in a variety of locations resulting in there being 155 chargepoints (around 300 connectors) in Manchester as of April 2023⁶.
- 4.4 Additional funding is available to the council to assist in the expansion of the public charging network. Funding that had been put aside by TfGM for this purpose from the City Region Sustainable Transport Settlement (CRSTS) has now been released by GMCA to the districts as the delivery mechanism of programmes going forward has now changed with the districts taking the lead. For MCC this allocation amounts to £1,108,160 towards capital investment. Funds will be released to the council in line with the agreed CRSTS drawdown process where it can be shown that it helps deliver charging in underserved or otherwise uncommercial areas as part of a commercial deal in partnership with a Charge Point Operator (CPO).
- 4.5 The Local Electric Vehicle Infrastructure (LEVI) grant is a government funding stream coordinated by the Office of Zero Emission Vehicles and is split into two elements, capability and capital funding. In April 2023, GM were advised on its allocation for 23/24 and 24/25. Funding has been made available across both funding streams, Capability (resource) and Capital (deployment) for the region.
- £1.44m for Capability (primarily for recruitment, internal transfer or additional time spent by existing staff, but there would be consideration of a limited amount of consultancy)
 - £16.2m for Capital (primarily for residents without off-street parking, but consideration areas such as park and ride).

⁵ ZapMap

⁶ ZapMap

- 4.6 The proposed MCC allocation from the Capability fund amounts to £54,600 over the two financial years and will part fund the Policy Officer LAEP post in relation to the resource spent on EV related work. OZEV state that the LEVI Capital fund will be administered “using a flexible approach. Projects must demonstrate that they primarily focus on low powered chargepoints to benefit residents without off-street parking but other chargepoints and users will be considered.” The final allocations are yet to be agreed but the indicative LEVI Capital allocation for MCC is expected to be £2,245,216.

5.0 Public EV Procurement Process

- 5.1 It is expected that the grant funding will be utilised as part of a procurement process to seek a CPO to supply, install, manage and operate a scheme of up to 200 connectors (100 dual headed chargepoints) to be installed over a two year period. This would be for the provision of public chargepoints in off street locations on council owned land in car parks and at facilities such as leisure centres, parks, libraries, etc. This is an initial programme and is seen as the ‘first step’ in expanding the public charging network representing a significant increase in the current provision. Tender documents are currently being prepared and finalised for this purpose and it is hoped that a procurement process will take place before the end of this year. Once a CPO is appointed and as the chargepoints are rolled out a communications strategy will be developed.
- 5.2 A draft list of locations (over 40 in total) has been developed and internal agreement is currently being sought for these locations. The locations are geographically spread across the city to ensure that chargepoints will be accessible to as many residents as possible. Within those wards that lack council owned parking areas officers are considering utilising small underused parcels of land to be able to convert to parking areas in order to provide chargepoints for local residents particularly in those areas where off street parking is limited. These locations are being discussed with Highways Officers in terms of their suitability and it is hoped that they will form part of the procurement process as part of the initial programme.
- 5.3 Car Clubs also provide an alternative to car ownership and as part of the procurement process there are also opportunities to consider the expansion of the car club to include EVs in the fleet at new locations.
- 5.4 A soft market testing exercise was carried out in May 2023 in order to ensure that any proposed procurement tender was feasible and to gain additional insights into opportunities and possibilities. The testing included 10 questions across a broad number of topics from procurement frameworks, operational matters, enforcement, revenue generation opportunities, charging tariffs, etc. 23 responses were received and these have been used to assist in developing the specification and expectations of the council in procuring a CPO.

6.0 Taxis and Private Hire Vehicles (PHVs)

- 6.1 To support the move towards a cleaner taxi fleet, TfGM were successful in their submission for £1.8m grant funding under the Government's Office of Zero Emission Vehicles (OZEV) Taxi Grant scheme. Some 60 rapid charging points at 32 sites across Greater Manchester are being installed dedicated for EV private hire (PHV) and hackney vehicles licensed by a GM Authority. The GM Clean Air Plan (GM CAP) also secured £3.5m of funding for a further 30 dedicated rapid Taxi charging points. These charging points will be added to the publicly funded Be.EV network. As part of this scheme and the Early Measures scheme Manchester has been provided with 12 dedicated EV bays in 5 locations across the city. One of these (Hardman Street taxi rank) has been operational since 2022 but the remaining locations in the city centre, Rusholme and Sharston, will be operational this year.
- 6.2 The usage of these chargepoints will be monitored going forward and this data can then be used to identify the need for additional dedicated chargepoints. As part of the wider public chargepoint procurement consideration will also be given to alternative ways of providing access to chargepoints for taxi and PHV drivers perhaps through concessionary tariffs but such an arrangement would need to be discussed and agreed with the successful CPO.

7.0 Car Club

- 7.1 There is a need to find a solution in order to transition the car club fleet to EVs however there are issues around who pays for the installation and the maintenance of the chargepoints required for this. TfGM were successful in their bid for funding through the Interreg NW Europe fund for a pilot scheme as part of the eHubs project to give people in GM innovative electric alternatives to the private car. Some of the aims of the project included increasing the transition to EVs and reducing the need for car ownership. This particular project was focused around electric shared mobility through the deployment of EV car club vehicles and e-cargo bikes in locations at Whalley Range, Chorlton and Ancoats. EV Chargepoints were installed at car club bays at East Didsbury Park and Ride, Provis Road (Chorlton) and Blossom Street (Ancoats) as part of this scheme. An additional location at Nicolas Road was removed from the scheme due to issues over pavement widths.
- 7.2 The LEVI capital grant funding can partly be used for the purposes of providing dedicated chargepoints for car club use. As a result the inclusion of chargepoints for car club vehicles is being considered as part of the Public Car Park procurement process outlined above.

8.0 New Development

- 8.1 Consideration of the requirements for the installation of EV chargepoints as part of both new build developments and change of use developments form part of the Air Quality Guidance Note. These advisory guidelines set out the requirements in terms of the type and number of chargepoints required through the use of planning conditions depending on the provision of allocated parking, the size of car parks and the end use of the development. These

guidelines are higher than those that have been required under the building regulations since June 2022.

- 8.2 The inclusion of such planning conditions and adherence to the building regulations is resulting in chargepoints being installed at new developments, including in publicly accessible locations where appropriate, which will help to future proof the provision of EV going forward.

9.0 Fleet and Workplace Charging

- 9.1 It is proposed to set up an internal working group to consider the future charging needs of transitioning the council's own vehicle fleet and initial discussions have taken place in this respect. As of June 2023 the MCC fleet included 41 all electric vehicles and 4 hybrids representing around 23% of the total fleet. As vehicle leases come up for renewal the council continues to look for low emission alternatives and as a result additional charging capacity will be required. There are also currently 27 electric refuse vehicles within the city's Biffa fleet and it is hoped to transition the remaining vehicles to electric in the next 12-18 months.
- 9.2 The MCC ultra-low emission vehicle staff salary sacrifice scheme opened in March 2023 and as of June had attracted 46 enrolments. This has led to a small number of requests for workplace charging facilities which the internal working group will also consider. At locations where public parking is available staff would be able to use any of the public chargepoints that might be installed and as a result separate workplace chargepoints are unlikely to be required at these sites. There is currently grant funding available for workplace chargepoints and the use of such funding would be explored should workplace charging be taken forward.

10.0 On-Street Options

- 10.1 On-street charging presents particular challenges, especially in residential areas with informal parking arrangements such as terraced streets.
- 10.2 For current EV owners without a drive charging at the moment is likely to be through public chargepoints as part of a regular routine while out and about or at work, which is why the current initial procurement exercise focuses on the provision of 'destination' charging at public car parks where residents can charge whilst undertaking day to day activity. As battery technology advances and the mileage range of EVs increases, needing to fully charge your vehicle is not expected to be required more than say once a week/fortnight in many instances. Many drivers, particularly on low or medium mileage rates, will find that topping up as part of their normal weekly pattern will be sufficient to meet the majority of their needs.
- 10.3 The council has no plans at the moment to install on-street public charge points as these can cause obstructions to pavements and street clutter. Nor does the council currently support the use of cables crossing the pavement to charge vehicles at the roadside, even if cable mats are used, as these can still

cause trip hazards and, particularly in larger numbers, can cause uneven surfaces making it difficult for residents to easily use the pavements.

- 10.4 The use of cable gullies is also not supported by the council. These could damage the structure/level of the highway, create ongoing maintenance issues and could interfere with other utilities running through the pavements in certain circumstances.
- 10.5 However, new technologies are coming forward to overcome some of the issues outlined above to enable residents without off street parking facilities to be able to charge their vehicles and officers will continue to monitor and review these as they are developed and consider their overall appropriateness. Manchester will continue to work with other authorities to share learning on best practice in this area.
- 10.6 Other options such as the use of lamp post chargers have been considered. However, in Manchester the majority of lighting columns are located at the back of the footway, partly to prevent vehicle strike, and thus trailing cables from such installations would also result in trip hazards. This can be overcome by the use of a bollard connected to the lamp post but this again adds additional street furniture, in many places the pavement width would be insufficient to accommodate the apparatus, and they could themselves become damaged through vehicle strike (particularly in areas where there is pavement parking). Lamp post charging is often seen as an inexpensive option that can be quickly installed however this is not the case where additional equipment is required, such as a bollard arrangement, and where a Traffic Regulation Order (TRO) would be required. This type of charging results in a slow (under 3kW) charge and as the installation costs are unlikely to be significantly lower where additional equipment is required and the time taken for the TRO process fairly lengthy the initial benefits of this type of installation would be lost. As a result this is not an option that is currently being pursued.

11.0 Recommendations

- 11.1 The Environment, Climate Change and Neighbourhoods Scrutiny Committee is recommended to consider and comment on the information in the report.