

**Manchester City Council
Report for Resolution**

Report to: Environment and Climate Change Scrutiny Committee – 8
December 2022
The Executive – 14 December 2022

Subject: Draft Manchester Electric Vehicle Charging Strategy

Report of: Strategic Director (Development)

Summary

To provide Members with an overview of the draft Manchester Electric Vehicle Charging Strategy.

Recommendations

The Environment and Climate Change Scrutiny Committee is recommended to note the report and endorse its progress to Executive.

The Executive is recommended to approve and endorse the Manchester Electric Vehicle Charging Strategy.

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

Financial Consequences – Revenue

None

Financial Consequences – Capital

None

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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.

- 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 Greater Manchester has a target to be a zero carbon city region by 2038. Transport is now the largest contributor to UK domestic greenhouse gas (GHG) emissions, contributing 27% of UK domestic emissions in 2019 (of which 61% was contributed by cars and taxis). 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 car ownership is still rising and cars will still be used for some journeys but in these cases the cars should be as least polluting as possible.
- 1.2 In the UK, an EV is estimated to have GHG emissions which are 66 per cent lower than a petrol car and 60 per cent lower than a diesel and these emissions will further reduce as the proportion of electricity produced from renewable and low carbon sources increases. 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 Strategy published earlier this year 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 draft MEVCS 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 Transport for Greater Manchester (TfGM) operate the publicly owned public EV charging infrastructure within the region under the Be.EV branding amounting to around 140 chargepoints, 30 of which 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. This network was reviewed and upgraded during 2019/20 when it was rebranded from GMEV to Be.EV. 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 130 chargepoints in Manchester as of September 2022. Information relating to all public chargepoints can be found at <https://www.zap-map.com/live/> which shows the location, type of chargepoint, current status of each chargepoint (whether it's charging, available, out of service, etc) and also the cost of charging.

- 2.2 The number of plug-in cars licensed within Manchester saw a substantial increase in growth in the last decade and by the end of March 2022 this amounted to 1,774 vehicles. Fully electric and plug-in hybrid vehicles are expected to grow to over 150,000 cars in Manchester by 2038 to make up approximately 75% of the total fleet. This 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 1,500 and 3,000 chargepoints will be required in Manchester.
- 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 which is considered to be the cheapest and most convenient method of charging private vehicles for most drivers. However, within Manchester approximately 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 issues

- 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 public charging network in the relatively short term, 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.
- 3.2 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. MCCs role in supporting the provision of charging infrastructure is through three main channels:
 - Direct – supporting the expansion of the Be.EV and other public networks (particularly on MCC land assets), assisting in making provision for charging infrastructure for car club and taxis and private hire vehicles (PHVs) and through planning conditions as part of new development
 - Leading by example through electrifying the MCC fleet
 - Indirect – by approaching and encouraging private enterprise and organisations to expand both the public network in accessible locations or through electrifying their own work based fleets.

- 3.3 There are currently 4 main types of chargepoints (ultra-rapid, rapid, fast 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 on a slow charger to over 150kW on an ultra-rapid charger.
- 3.4 It is proposed that the council assists in facilitating the installation of supplier owned, funded (possibly utilising existing grant funding opportunities), 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' chargers 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. It is also proposed that the council could consider leasing small parcels of land for the development of charging hubs made up predominantly of ultra-rapid and rapid chargepoints which may be more suitable for those drivers with higher mileage requirements and for those who are more likely to charge when the battery levels are very low. Charging hubs are similar to a petrol filling station type of environment but with charging points rather than pumps and these will often be accompanied by small shops/cafes etc on site.
- 3.5 The draft 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/PHVs as well as car club vehicles. There are a number of reasons for this including potential damage, pavement obstructions, visual street clutter, etc. Technology does exist to connect EV chargepoints to lamp posts, and these have been considered, but as the majority of lamp posts in the district are located at the back of the pavement it was not considered appropriate to trail cables across the footway. Connecting the lamp post to a charging bollard at the kerbside could again cause issues of street clutter and pavement obstructions and would be a more costly solution. Lamp post chargepoints are slow chargers generally operating at around the 3kW range which is now slower than many home chargers that can be purchased. Neither the trailing of cables nor the provision of cable gullies across pavements is supported by the council.
- 3.6 As part of the planning process and under amendments to the building regulations brought in this year new developments are subject to conditions relating to the installation of EV chargepoints to both residential and commercial proposals. This includes the council's own developments including proposals at Abraham Moss, the Gorton Hub, the Ancoats Mobility Hub and Hough End Leisure Centre and will also apply to new proposals coming forward.3.6 In the past the main issues in expanding the public EV charging network has been due to financial resources, site identification and internal process along with grid capacity.
- Funding – in expanding the Be.EV network and installing chargepoints for the sole use of taxis/PHVs TfGM has been reliant on suitable grant funding coming forward which has resulted in small scale, ad hoc

developments across the Greater Manchester districts. Recently there has been a growth in the number of EV charging suppliers entering the market and many of these suppliers are able to offer fully funded, maintained and operated schemes may provide potential opportunities going forward along with the ongoing grant schemes provided by the UK government. It should be noted however that any such partnership approach between MCC and commercial suppliers is likely to be subject to open procurement procedures, will need to be carefully considered for their appropriateness and it is likely to result in relatively long contract commitments which may not be suitable for all locations.

- Site identification – in the past it has taken some time to identify possible suitable locations for each grant application and the current internal council processes involving numerous departments have been cumbersome. It is suggested that a more efficient way going forward is to have a cross-departmental steering group to assist in identifying suitable land assets and also to provide a more streamlined approach going forward to delivery.
- Grid capacity – the electricity capacity within the existing national grid has been an issue in the past and has resulted in some sites being discounted as the grid upgrades required would be too costly making any proposal financially unviable. ENWL are aware of these issues and the council will need to take this into consideration as potential sites are assessed in discussion with ENWL.

3.7 The draft strategy sets out the following recommendations to assist in the delivery of a more accessible EV charging network:

- the council will form a cross departmental steering group to oversee the delivery of the recommendations in this report
- the council will support the expansion of the Be.EV public network in partnership with TfGM as grant funding opportunities arise
- the council will consider the suitability of locations within its own car parks and parking areas for the installation and operation of chargepoints by private suppliers
- the council will consider leasing parcels of its own land for the development of charging hubs in suitable locations
- the council will seek to make the best utilisation of funding opportunities as they become available to expand the charging network and consider the installation of supplier provided equipment on MCC owned land
- the council will support locations which could serve taxis and PHVs to increase the take up of EVs within this group, either on-street or off-street
- the council will support locations that encourage the electrification of the car club fleet, either on-street or off-street
- the council will continue to seek ways to de-carbonise the councils own fleet of vehicles to reduce emissions and will provide the necessary charging infrastructure for this

- the council will support the provision of EV chargepoints for staff use in appropriate circumstances

4.0 Recommendations

- 4.1 The Environment and Climate Change Scrutiny Committee is recommended to note the report and endorse its progress to Executive.
- 4.2 The Executive is recommended to approve and endorse the Manchester Electric Vehicle Charging Strategy.