

Report to CABINET

GM Electric Vehicle Charging Infrastructure Strategy (EVCI)

Portfolio Holder:
Cllr A Shah, Leader of the Council and Cabinet Member for Economic and Social Reform

Officer Contact: Helen Lockwood, Deputy Chief Executive

Report Author: Joanne Betts
Ext.

26th July 2021

Reason for Decision

A Greater Manchester Electric Vehicle Charging Infrastructure Strategy has been prepared by Transport for Greater Manchester in partnership with the 10 GM local authorities and other stakeholders as a sub-strategy of the GM2040 Transport Strategy. It will be recommended to the July GMCA for approval and adoption.

Executive Summary

The availability of and access to charging infrastructure is recognised as a critical barrier to the adoption of Electric Vehicles in Greater Manchester. In order to support and accelerate the transition to EVs across GM it will be important to have the right type of Electric Vehicle Charging Infrastructure in the right locations to meet demand. The GM Electric Vehicle Charging Infrastructure (EVCI) Strategy aims to provide a clear vision, objectives and strategic principles to inform a plan for the delivery of public charging infrastructure across the city region.

The Strategy includes a series of strategic network principles that will guide the future expansion of the publicly-funded EVCI network and ensure it is: integrated, environmentally responsible, inclusive, well maintained and resilient, safe and secure, reliable, healthy and viable (ie not dependent on public subsidy). The Strategy identifies priorities for public investment up to 2025 as being projects which will support the Clean Air Plan and GM 2038 net zero carbon ambitions by meeting the demand likely to be

generated by the most polluting vehicles transitioning to EVs and supporting those who would find it most difficult to transition to EVs due to home charging constraints.

Recommendations

To recommend the GM Electric Vehicle Charging Infrastructure Strategy for approval by the GM Combined Authority.

GM Electric Vehicle Charging Infrastructure Strategy (EVCI)**1 Background**

- 1.1 Updated GM2040 Transport Strategy documents were approved by GMCA in January 2021 including: a refreshed version of the long-term, statutory local transport plan (LTP) - the Greater Manchester Transport Strategy 2040; a final version of Our Five-Year Transport Delivery Plan (2021-2026) and ten new Local Implementation Plans (one for each Greater Manchester council).
- 1.2 The GM Electric Vehicle Charging Infrastructure Strategy is one of a suite of sub-strategies being developed to support the overarching LTP documents adopted in January and to set out more detailed policies, principles and guidance on how GM intends to deliver the 2040 ambitions.
- 1.3 Implementation of the GMEVCI Strategy will support the Council's ambitions to protect the environment and become carbon neutral by 2030.
- 1.4 The GM Electric Vehicle Charging Infrastructure Strategy will be recommended to the July GMCA for approval and adoption.

2 GM Electric Vehicle Charging Infrastructure Strategy

- 2.1 The availability of and access to charging infrastructure is recognised as a critical barrier to the adoption of Electric Vehicles. As part of the public conversation on the GM Clean Air Plan proposals, the availability of charging points was cited as a key barrier for businesses and individuals in switching to an Electric Vehicle.
- 2.2 The requirement for appropriate vehicle charging infrastructure is even more critical given that the Government has now committed to phasing out the sale of new petrol and diesel vehicles by 2030.
- 2.3 In order to support and accelerate the transition to EVs across GM it will be important to have the right type of Electric Vehicle Charging Infrastructure in the right locations to meet demand. Sufficient numbers of chargepoints must be provided to ensure EV users can charge where and when they need to. This is particularly important given that a significant proportion of people in GM do not have private off-street parking to charge an electric vehicle. Range anxiety is also a barrier to switching to EVs for many people. Having an available public charging network that people have confidence in is an important factor in encouraging people to switch to an EV.
- 2.4 The Electric Vehicle Charging Infrastructure (EVCI) Strategy aims to provide a clear vision, objectives and strategic principles to inform a delivery plan for the delivery of public charging infrastructure across the city region.
- 2.5 The strategy focuses on the publicly accessible EVCI required to enable Greater Manchester's businesses and residents to transition to EVs for those journeys that cannot be avoided or shifted to more sustainable modes. It does not cover charging infrastructure requirements for Heavy Goods Vehicles or buses.
- 2.6 The key themes of the EVCI Strategy are:
 - The need to ensure that an under provision of EVCI is not prohibiting the transition to EVs.

-
- The need to accelerate the transition to EVs to meet net-zero carbon targets especially in light of the ban of the sale of new petrol and diesel cars by 2030 and hybrids by 2035.
 - The need for public sector intervention in the short term to encourage and accelerate the transition to EVs, demonstrate commitment to EV technologies and encourage investment.
 - The long term need for the development of a mature commercial EVCI network in GM that allows public sector intervention to be scaled back.
 - The need for flexibility to change investment priorities in on the basis that EVs and EVCI are emerging technologies that create uncertainties around accurately projecting demand.
 - The need to provide alternatives to home charging for those without off-street parking including EV car clubs, community hub charging, workplace charging and EVCI at park and ride sites.

3 GM EVCI Strategy – The Vision and Objectives

3.1 The EVCI Strategy sets out the vision for Greater Manchester:

“to be an exemplar city region for enabling the electrification of transport in the context of a smart, integrated, sustainable mobility network. By 2030, Greater Manchester’s residents and businesses and visitors to the region, who choose to travel by car or LGVs, will be able to use electric vehicles with the confidence that they will be able to conveniently recharge them (via public or private charging points); and in doing so will help to improve air quality and reduce carbon emissions across the conurbation.”

3.2 The Strategy’s objectives are:

- To establish a financially sustainable, publicly accessible EVCI network, scalable to growth in demand and flexible to changes in vehicle technologies.
- To clarify GM’s requirements for a future public and privately funded and delivered EVCI network that supports the accelerated transition to EVs among businesses, residents and visitors; whilst minimising car dependency and private car ownership.
- To establish a clear set of priorities for the expansion of the publicly funded section of the EVCI network, focused on supporting the delivery of GM’s Clean Air Plan and 2038 GM carbon neutral target by accelerating the transition to EVs for the most polluting vehicles.
- To provide a clear set of EVCI strategic network principles and delivery criteria for publicly funded EVCI to highlight the types of infrastructure and charging locations that will be supported in principle by TfGM and GM local highway authorities.
- To attract and shape private sector investment in the EVCI network by providing more clarity on GM’s priorities and how TfGM and local authorities will work with private sector EVCI providers and operators; with the ultimate aim of establishing a mature, commercial EVCI market.

4 GM EVCI Strategy - Network Principles

4.1 The Strategy includes a series of strategic network principles that will guide the future expansion of the publicly funded EVCI network. These are shown in Figure 1 and expanded on in Table 1 below.

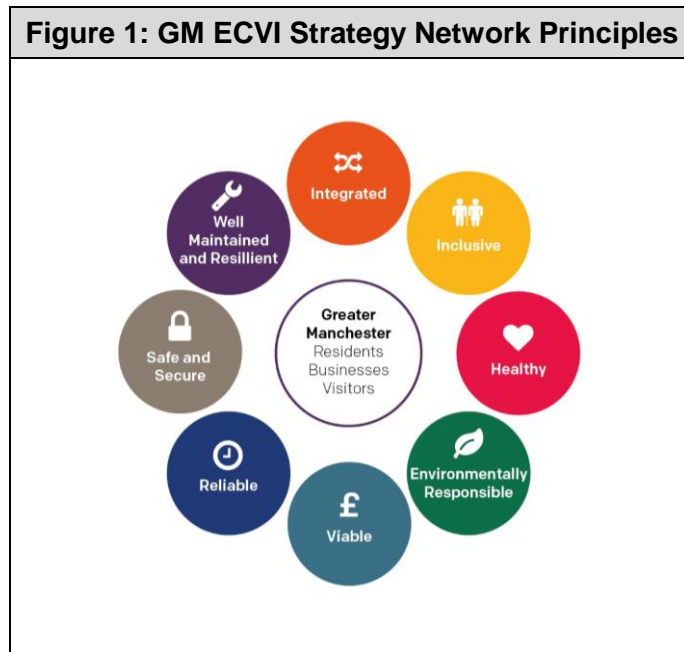


Table 1: GM EVCI Strategy Network Principles	
Network principles	Ambitions
Integrated	<ul style="list-style-type: none"> To improve the EV charging experience by having a fully interoperable public charging network across GM without needing separate memberships. To ensure that publicly funded EVCI is conveniently located to enable EV users to access other sustainable transport modes and services, thereby reducing overall reliance on private cars.
Environmentally Responsible	<ul style="list-style-type: none"> To have an EVCI network supplying 100% of electricity generated by renewable energy.
Inclusive	<ul style="list-style-type: none"> To have a socially equitable GM EVCI network to provide affordable alternatives to home charging to ensure that those without access to off-street parking are not disadvantaged. For EVCI network expansion to be designed to provide for disabled EV drivers, with step free access and larger parking bays for disabled access. To provide multiple EVCI charging points clustered in hubs or mini-hubs in highly visible convenient locations.
Well Maintained and Resilient	<ul style="list-style-type: none"> To ensure that the public EVCI network is maintained in a good state of repair and that it is resilient to future increase in demand.

Table 1: GM ECVI Strategy Network Principles	
Network principles	Ambitions
Safe and secure	<ul style="list-style-type: none"> To ensure that people feel safe using the public ECVI network at all times of day and night and that perceptions of crime are not a significant barrier to using the network. Publicly funded ECVI will be well designed so that the operation and maintenance of the network is safe for the EV users, the ECVI service provider and other road users.
Reliable	<ul style="list-style-type: none"> To develop and maintain a reliable ECVI network that offers available charging solutions that reduce range anxiety and give people the confidence to transition to EVs.
Healthy	<ul style="list-style-type: none"> To develop an ECVI network that supports people in leading active, healthy lives, both through air quality benefits and integration of the network with other GM initiatives that encourage active travel.
Viable	<ul style="list-style-type: none"> In the medium term, to develop a self-sustaining publicly funded ECVI network that is not dependent on public subsidy.

5 The role of the public sector in influencing and delivering a GM ECVI network

5.1 There are several ways in which TfGM and the 10 GM Local Authorities, working in partnership with other stakeholders, can aid the delivery of a GM ECVI network that encourages and accelerates the transition to EVs. Alongside the deployment of publicly funded ECVI, the public sector can lead by example in the transition of their own fleets to EV and also use Local Planning Authority powers to ensure new development makes provision for ECVI.

6 Priorities for public investment up to 2025

6.1 The initial focus for investment in the publicly funded ECVI network will be projects which support the Clean Air Plan and GM 2038 net zero carbon ambitions by meeting the demand likely to be generated by the most polluting vehicles transitioning to EVs and supporting those who would find it most difficult to transition to EVs due to home charging constraints.

The taxi trade

6.2 Clean Air Plan modelling estimates that 15% of all hackney cab and PHV trips will need to be made by EV by 2025 in order to achieve air quality compliance, with the estimated number of rapid charging devices needed by 2025 to support that transition ranging from between 34 (low scenario), 90 (central scenario) and 190 (high scenario).

6.3 Funding has been secured for approximately 70 rapid chargers dedicated for use by the taxi trade across all GM local authority areas, which combined with the Clean Taxi Fund (CTF), will support the transition to EVs. Following consultation with the trade earlier this year, more detailed work is underway to assess the suitability of sites with a view to at least one charging hub being located in each local authority area.

Residential areas

- 6.4 Greater Manchester has a wide variety of housing stock, including a significant proportion without a private drive or a dedicated parking space to allow off-street charging. Under the Highways Act 1980 it is illegal for any person to place or run a cable or wire along or across a public highway including the use of pavement drainage channels or a cable protector.
- 6.5 In many areas of Greater Manchester, including in Oldham, it is not considered to be physically possible or financially viable to install on-street, publicly accessible charge points in residential areas to the scale required to meet demand from private car ownership transitioning to EVs.
- 6.6 Whilst there may be appropriate locations for well planned, designed and managed on-street charging, rather than providing large amounts of on-street publicly accessible residential charge points, the GM EVCI Strategy will focus on providing alternatives designed to support residents that do not have access to home charging.
- 6.7 For residents unable to charge at home, proposed alternatives include:
- Developing and expanding the EV car club offer;
 - Developing community charging hubs;
 - Engaging with employers to encourage more workplace charging; and
 - Destination charging including at park and ride sites.
- 6.8 The programme of planned additional Electric Vehicle Charging Infrastructure will be included on a sub-site of TfGM.com dedicated to electric vehicles. This sub-site will also include an online map to facilitate better co-ordination of requests from residents for on-street charging locations. This map will allow residents to 'pin-drop' suitable locations and will provide other useful data on EV take up.

7 Options/Alternatives

- 7.1 Option 1: To recommend the GM Electric Vehicle Charging Infrastructure Strategy for approval by the GM Combined Authority.
- 7.2 Option 2: Not to recommend the GM Electric Vehicle Charging Infrastructure Strategy for approval by the GM Combined Authority.

8 Preferred Option

- 8.1 Option 1: To recommend the GM Electric Vehicle Charging Infrastructure Strategy for approval by the GM Combined Authority.

9 Consultation

- 9.1 Policy Overview and Scrutiny Committee was consulted on the GM2040 Electric Vehicle Charging Infrastructure Strategy on 15th June 2021.

10 Financial Implications

- 10.1 There are no direct financial implications for the Council to approve the GM Electric Vehicle Charging Infrastructure Strategy. However, the Strategy implies significant investment will be required to set up the infrastructure and, whilst the initial investments proposed under the Clean Air Plan are expected to be funded via the GMCA, the

requirement for Council investment cannot currently be ruled out over the life of the strategy.

- 10.2 Individual proposals under the strategy will be the subject of separate reports, which will detail any anticipated financial implications.

(James Postle)

11 **Legal Services Comments**

- 11.1 Local Transport Plans (LTPs) were established by the 2000 Transport Act, as statutory documents to be produced by all local authorities, setting out a 5-year programme for investment for local transport, supported by statements on wider local transport policies to support the delivery of a longer term vision and strategy for their given area. Under changes mainly introduced by the Local Transport Act 2008, the duty to produce an LTP for Greater Manchester was transferred to the sole responsibility of the Greater Manchester Combined Authority (GMCA). In addition, the requirement to produce a 5-year programme was replaced by a duty to keep the LTP under review, alter it if considered appropriate to do so and replace it as the GMCA think fit. In preparing the LTP and keeping it under review the GMCA must consult each local traffic authority and district council within their area. (A Evans)

12 **Co-operative Agenda**

- 12.1 Working in partnership with TfGM, the GM local authorities and other stakeholders to develop and roll-out the GM EVCI Strategy and providing residents with the opportunity to identify suitable locations for EVCI via an online map supports the Council's Cooperative agenda.

13 **Human Resources Comments**

- 13.1 None.

14 **Risk Assessments**

- 14.1 The detailed risks to be managed associated with this Strategy will become clearer as the work to implement is undertaken as more detailed proposals are developed across both the conurbation and the Borough (Mark Stenson)

15 **IT Implications**

- 15.1 None.

16 **Property Implications**

- 16.1 None.

17 **Procurement Implications**

- 17.1 The Commercial Procurement Team support the recommendation outlined in the report and will manage any subsequent tendering activities ensuring they are carried out compliantly in line with the Council's Contract Procedure Rules and Public Contract Regulations 2015. (Emily Molden)

-
- 18 **Environmental and Health & Safety Implications**
- 18.1 Successful roll-out of the GM EVCI Strategy will have a very positive carbon and air quality emissions impact. Safety will be a fundamental consideration in the design of the EVCI network for EV users and other road users.
- 19 **Equality, community cohesion and crime implications**
- 19.1 The strategic network principles that will guide the future expansion of the publicly-funded EVCI network are intended to ensure that it is inclusive and socially equitable, affordable and accessible, including for disabled drivers, and that concerns around personal security and crime are addressed so that people feel safe using the public EVCI network at all times of day and night and perceptions of crime are not a significant barrier to its use.
- 20 **Implications for Children and Young People**
- 20.1 None.
- 21 **Equality Impact Assessment Completed?**
- 21.1 Not required. An Equality Impact Assessment has taken place on the GM2040 Strategy. Equality considerations are also recorded on all GMCA reports.
- 22 **Key Decision**
- 22.1 Yes
- 23 **Key Decision Reference**
- 23.1 ESR-01-21
- 24 **Background Papers**
- 24.1 There are no background papers for this report.
- 25 **Appendices**
- 25.1 Appendix 1: Draft GM Electric Vehicle Charging Infrastructure Strategy