

TRAFFORD COUNCIL

Report to: Executive
Date: 16 March 2019
Report for: Decision
Report of: Executive Member for Environment, Air Quality and Climate Change

Report Title

Electric Vehicle (EV) Charging Points in Trafford

Summary

This report provides information to Members relating to the rollout and options associated with the introduction of EV charge points across Trafford.

Recommendation

The Executive is recommended to:

- a) Note the role of TfGM and the rollout of EV charge points across Greater Manchester (GM) that affects Trafford.
- b) Note the options that the Council has to consider and explore further with regard to future rollout of EV charge points in Trafford;
- c) Support the continued rollout of EV charge points and develop options through soft market testing that seeks to maximise potential net revenue streams from the technology.

Contact person for access to background papers and further information:

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Background Papers: None

Implications:

Relationship to Policy Framework/Corporate Priorities	Improving Public Health Improving Air Quality Improving Road Safety Green and Connected
Relationship to GM Policy or Strategy Framework	Air Quality Management Clean Air Plan Environment Plan

Financial	There are no direct financial implications from this report. There will be a future report to Executive containing a costed range of potential options and initiatives to support EV charge points with appropriate funding sources. This will also include the £500k included in the capital programme for 20/21 which was approved by Council in February.
Legal Implications:	No legal implications from this report.
Equality/Diversity Implications	Not Applicable
Sustainability Implications	Improving availability and access to EV charge points will lead to a more sustainable mode of transport and environment
Resource Implications e.g. Staffing / ICT / Assets	Not Applicable
Risk Management Implications	Not Applicable
Health & Wellbeing Implications	There are wide ranging health through less use of conventional vehicles and therefore air quality will improve.
Health and Safety Implications	The air quality will become cleaner through the implementation of the measures described in this report therefore improving health and safety.

1.0 Background

- 1.1 The electric car market is growing quickly. Almost 275,000 electric vehicles (EV) were registered in the UK at the end of 2019. The most recent set of figures from the Society of Motor Manufacturers and Traders (SMMT) show that plug-in models made up 6.3% of total UK new car registrations, with pure-electric models accounting for 3.3% of that total.
- 1.2 Road transport is a major contributor to the UK's greenhouse gas emissions, accounting for a fifth of total emissions. Reducing emissions from road transport remains a significant challenge for the UK to reach net zero emissions targets by 2050. To date the Government has used a number of mechanisms to reduce emissions and encourage the electrification of transport, including a £400 million Charging Infrastructure Investment Fund to help accelerate charging infrastructure deployment.
- 1.3 The Government announced in February 2020 they will consult on bringing the ban on selling new petrol, diesel or hybrid cars in the UK forward from 2040 to 2035, or sooner. There is also a commitment for all central government vehicles to be electric by 2030.
- 1.4 In March 2019 Greater Manchester launched their 5-year Environment Plan which sets out the long-term vision to be carbon neutral by 2038. Within the Plan air quality is recognised as a major challenge and the need to “shift away from fossil fuel powered transport to zero emissions or cleaner alternatives”. The recommendation is for business and other organisations to convert fleet vehicles to electric and consider requirements for charging infrastructure.
- 1.5 Greater Manchester has proposed a Clean Air Zone (CAZ) that will cover local roads across the whole of Greater Manchester from 2021. Using Automatic Number Plate

Recognition (ANPR) the CAZ would charge the most polluting commercial vehicles a daily charge to travel on local roads. The CAZ aims to discourage polluting commercial vehicles travelling on local roads, encourage the transition to low emission vehicles and bring NO2 emissions within legal limits.

2.0 The Local Picture

- 2.1 There is currently a small network of Greater Manchester Electric Vehicle (GMEV) charge units introduced by Transport for Greater Manchester (TfGM) across Greater Manchester (GM). The EV charging infrastructure is spread throughout the Greater Manchester districts with the majority of the current infrastructure being publicly accessible and currently free to use.
- 2.2 Introduction of EV charge points has taken place since spring 2013 with the current EV network including 159 x dual-headed 'fast' charger 15kw posts (with 7kw per post) and 3 x Siemens 50kw DC rapid chargers (one is restricted for the sole use of buses in Manchester City Centre).
- 2.3 TfGM has more recently initiated the Electric Vehicle Infrastructure Project and is one of a number of measures proposed to Government, in support of the GM Clean Air Plan. To support the delivery of this project TfGM completed a re-procurement exercise in 2019, in order to identify a new Electric Vehicle Charging Infrastructure Service Provider, to operate the GMEV network. Amey were appointed by TfGM to operate the GMEV network in December 2019.
- 2.4 Transport for Greater Manchester will install, operate, maintain and collect any subsequent revenue from the new EV charging posts that they install. Districts including Trafford can use the TfGM EV charging post procurement framework should we wish to install additional units.
- 2.4 This particular project is also looking to government to fund the installation of a further 300 brand new charging posts, spread equally throughout Greater Manchester, with 30 charging posts anticipated in each district including Trafford. Initially TfGM in close liaison with GM districts is looking at the installation of at least 24 new rapid charge posts across GM with anticipated installation in summer 2020.
- 2.5 As of the third quarter in 2019 there were over 4,100 plug-in cars and light goods vehicles licensed in Greater Manchester, of that over 600 were licensed in Trafford. This presents a 37% increase in plug-in vehicles in Trafford in the last year (since Q3 2018), compared to an overall increase in Greater Manchester of 34% for the same period.
- 2.5 The strategy currently for the TfGM EV project is to focus installation of charge points primarily on publicly owned car parks, but privately-owned car park sites would be considered on a case by case basis. TfGM are currently not looking to install charge points elsewhere other than in car parks.
- 2.6 Trafford therefore need to consider the impacts of the rollout of a wider EV charge point network beyond public car park sites to ensure the rollout meets demand of increased electric car use and continued demand for public use of the highway.
- 2.7 A number of principals need to be considered to allow an increased installation of electric vehicle (EV) charge points within Trafford to support Greater Manchester

Combined Authority Clean Air Plan and the national Road to Zero policy. These principals also need to be considered to support the increase in EV car ownership associated with Trafford's growth ambitions.

3.0 Rolling out EV Charging across Trafford

3.1 Trafford will need to consider how it can rollout and support EV charge points within the Borough beyond public car parks. There will need to be guidance and principals agreed to allow any future project or scheme to be delivered and managed. There is the potential for a future revenue stream that needs to be explored.

3.2 Areas that need to be considered and developed include:

- Parking and Spaces
- Planning considerations
- Procurement and funding

4.0 Parking and Spaces

4.1 Quantity of spaces Dedicated to EV

- 4.1.1 Consideration should be given to a policy that requires dedicated EV provision for new developments along with passive capability for future need. An example of this is that The London Plan (2016) that requires EV provision for 20% of all new spaces with an additional 20% passive provision, and retail sites having a 10% allocation for EV's.
- 4.1.2 Consideration should also be given to the proportion of existing parking and highway space that is made available to EV charge point operators or providers. This includes considering EV spaces for off street parking and on street EV charging spaces should that could be made available for residents with no available off-street parking, taxis and car clubs
- 4.1.3 Residential areas with no off-street parking should be identified and Trafford need to consider how to encourage EV charging provision to be made available in these areas. Potential difficulties arise due to infrastructure that may impact on the highway which needs to be considered and soft market tested. Grant funding is currently available for this.
- 4.1.4 The infrastructure on highway can supplement the installation of EV charging infrastructure in areas where residents have already purchased EVs; as well as ensuring that off-street parking is not a pre-requisite and therefore encouraging residents considering purchasing an EV but have not to date as they do not have off-street parking.
- 4.1.5 The Office for Low Emission Vehicles (OLEV) provides grant funding to install such infrastructure. Local authorities can apply for funding to help with the costs of procurement and installation of on-street charging points for residential use. The funding available is for 75% of the capital costs of procuring and installing the charge point and an associated dedicated parking bay. The scheme is focused on the installation of on-street charge points but will also consider applications for charge points situated in car parks owned by the Local Authority.

- 4.1.6 This funding is also applicable to charge points installed on a pavement, lamppost charge points and kerb-side charge points. Each have advantages and limitations regarding the space they consume and the number of parking bays they span, however the objective of installing the charge points should also be considered to decide on the appropriate technology. For example, a kerb-side charge point may reduce the number of parking bays available but in doing so is more compatible with initiatives to reduce car use and encourage sustainable and active travel.

5.0 Workplace Charging Scheme

- 5.1 The Workplace Charging Scheme also provides an opportunity for the Council to install charge points across their sites. It is a voucher-based scheme that provides support, up to 75%, towards the up-front costs of the purchase and installation of charge points. As most EV drivers rely on home and workplace charging, charge points should be provided at sites for Council employees. Similarly, these charge points can be used for the Council's own pool fleet, where there are frequently opportunities to improve costs, emissions and safety of the existing grey fleet. Expansion of workplace charge points needs to be considered further.
- 5.2 The OLEV Home charge Scheme and Plug-in Car/Van Grant provides grant funding towards the costs of installing EV charge points and purchasing electric vehicles. Trafford Council has a role to play in ensuring Council employees, businesses and the public are aware of available funding.

6.0 On street charging bays

- 6.1 Where EV charging is provided consideration should be given to providing dedicated spaces for EV vehicles. This will need supporting by a TRO and like disabled bays not dedicated to individual users. TROs can be used to restrict access for internal combustion engine vehicles and limit the length of stay for an EV.

7.0 Enforcement of charging bays

- 7.1 Public EV charge points bring in revenue so enforcement should be considered for overstay or incorrectly parked vehicles. For overstaying vehicles charges can be made through the back office, for cars parked whilst not parking an officer or technology system should be considered.
- 7.2 A (permanent or experimental) Traffic Regulation Order (TRO) can be used to regulate the length of stay for an EV in any one bay. To ensure one EV owner does not monopolise a charge point but can charge for sufficient time, it is important to consider the location. Within central locations such as town centres, users are likely to be using the destination charger to 'top-up' and take advantage of the parking location therefore requiring less time (e.g. 1 hour); whereas for chargers at locations where drivers will more likely to park and charge for longer periods of time i.e. park and ride, the length of stay will need to be longer.
- 7.3 The length of stay and type of charging infrastructure installed can help to dictate certain behaviours. For those central locations it would be recommended to install a 'fast' charge point to encourage turn-over. Currently, the enforcement of EVs is being managed differently between local authorities. The following mechanisms are being used:

- Penalty Charge Notices (PCNs) can be issued, based on time or non-compliant vehicle
- Civil enforcement officer inspection, based on time or non-compliant vehicle
- Charge point operator charges the customer a premium fee if vehicle exceeds time limit or is fully charged

7.4 The management of charge point parking bays will need to change as demand for EVs and charge points increases and this will need to be considered further.

8.0 Electric Car Clubs

8.1 Car clubs can contribute to the following policy objectives; reduce congestion, reduce pollution and enhance accessibility. Car clubs are also proven to increase active travel and use of public transport. There are multiple car club models - flexible, round trip and point-to-point – that have all demonstrated the use of electric vehicles. Most operators' incentivise members to put the vehicle on charge once the booking is complete through i.e. free mileage.

8.2 Local authorities are not permitted to install publicly funded charging points for the use of a car club due to state aid rules. However it is recommended that Trafford explore opportunities with a car club operator to roll out an electric car club, the car club could serve Council staff during working hours (replacing grey fleet usage) and the public at evenings and weekends.

9.0 Planning Considerations

9.1 Some exemptions apply to EV charge points under the permitted development rights set out in Statutory Instrument 2056, planning permission is not required for exempt locations.

9.2 Permissions for developments should include provision of EV described in paragraph 4.1.1 above. Permissions for new homes with off street parking should also require the installation of EV charging outlets.

10.0 Power supply

10.1 A significant constraint and cost to the installation of EV charging infrastructure is power availability. This is delivered either through the Distribution Network Operators (DNO) underground cable network or via a properties private cable network.

10.2 When siting equipment consideration should be given to the:

- Capacity of the local DNO network
- The vicinity of the local DNO network or power supply
- Future demands, including potential transport hubs for connected automated vehicles
- Protection from accidental damage.

10.3 Equipment should include load balancing capability and Vehicle to Grid (V2G) technology when available to reduce and manage load as far as is practicable.

- 10.4 When an installer or customer installs an EV charge point the Distribution Network Operator (DNO) must be informed. If the installation is assessed to be within the existing rating of the supply equipment, then the DNO can be informed retrospectively.
- 10.5 Soft market testing with potential suppliers will include management of the power supply and assessment of appropriate technology.

11.0 Selection of sites

11.1 There are tools that can assist with selection of sites. Amey has an in-house data analytics tool for identifying optimal locations for EV charging installations based on prediction of future usage which is being used to select the TfGM proposed 300 sites.

- 11.2 The output of the Site Location Tool includes two models
- identifying demand for fast charging and
 - identifying demand for rapid charging.

The data used within the models include demographics, air quality, traffic data, census data and points of interest.

11.3 Trafford can use this tool to map potential locations and rollout of options to manage future demand and maximise income opportunities.

12.0 Council owned premises used by others

12.1 The council should consider supporting users of premises with the installation of EV charge points in premises owned by the council. The cost of the installation can be provided by the partner agency, resident or business with grant funding available to help with installation costs through the Office for Low Emission Vehicles (OLEV) Go Ultra Low Programme.

13.0 Procurement

13.1 Procurement of EV infrastructure should follow the guidelines described in UKEVSE document 'Making the right connections – General procurement guidance for electric vehicle charge points'.

13.2 Trafford has a potential opportunity to explore a range of procurement options that could offer potential revenue income streams and it is suggested this be further explored and proposals be presented at a future meeting.

13.3 At the recent Council meeting of the 19th February 2020 approval was given to fund additional installations of EV charge points across Trafford with £500k of capital investment. Procurement options as described in this report will seek to explore and maximise the potential for this investment, including the funding of ongoing maintenance costs and generation of future revenues.

14.0 Conclusions

- 14.1 The technology associated with EV charging is developing rapidly and there is likely to be an increasing demand for EV charge points in Trafford during the next 5 to 10 years and beyond.
- 14.2 Whilst TfGM are looking to support and install EV charge points in support of this demand it is currently limited to car parks.
- 14.3 Trafford Council therefore needs to consider and agree a set of principles that will support the rollout of EV charge points going forward.
- 10.3 Due to the acceleration and increase in providers in this technology Trafford have an opportunity to explore options and rollout a wider network of EV charge points with a potential income stream through a soft market testing exercise.
- 10.3 A range of options and opportunities will need to be developed and presented to members to support the approved capital investment of £500k and increase the number and availability of EV charge points across Trafford.

15.0 Other Options

- 15.1 A range of initiatives and options are suggested to be explored as included within this report.
- 15.2 The other alternative is that we could not fit EV Charging units within Trafford and rely on private initiatives to do it. As part of the clear air initiatives we have ruled out this option.

16.0 Consultation

- 16.1 Consultation with stakeholders, partners and members will be ongoing as part of the project.

REASONS FOR RECOMMENDATION

To inform and seek approval from members on the range of initiatives that needs to be considered and explored further relating to EV charge points.

Key Decision Yes

If Key Decision, has 28-day notice been given? Yes

Finance Officer Clearance PC
Legal Officer Clearance TR

CORPORATE DIRECTOR'S SIGNATURE



To confirm that the Financial and Legal Implications have been considered and the Executive Member has cleared the report.