

## **TRANSPORT FOR GREATER MANCHESTER RESPONSE TO CMA MARKET STUDY INTO THE ELECTRIC VEHICLE CHARGING SECTOR**

### **OVERVIEW**

The delivery and operation of Greater Manchester's publicly funded Electric Vehicle Charging Infrastructure is co-ordinated by TfGM (on behalf of the 10 GM Local Authorities), so that it can integrate its delivery with wider strategic GM responsibilities such as sustainable journeys and Clean Air.

The GMEV network was launched in 2013 by TfGM. The focus of investment for the GMEV network was fast EV chargers positioned in Local Authority car parks. From summer 2020, the GMEV network and brand has been replaced by a new network, Be.EV.

Be.EV is the brand for a new EV charging infrastructure provider in Greater Manchester. The installation of new rapid charging infrastructure and upgrading the current GMEV fast charging network is being carried out by Amey under the Be.EV brand.

### **CONSULTATION QUESTION RESPONSES**

#### **Theme one: developing competition while incentivising investment**

##### **1. How is the EV charging sector developing and how will technological or other developments (for example smart technologies) impact sector development and competition?**

This sector is growing quickly but still in the early stages of development. The growth of Electric Vehicle (EV) up-take and provision of EV Charging Infrastructure (EVCI) are co-dependent. At around 0.25%, Greater Manchester's EV registration is significantly behind the national average of 0.5% of the total vehicle population. As part of the GM public conversation held in 2019 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. GM's EV charge point provision is also below the national average of charge points per capita. GM has only 15.6 charge points per 100,000 population compared with the national average of 23.

Currently Greater Manchester has a network of around 360 publicly accessible charge points operated and maintained by a number of operators. This includes the public sector Be.EV brand charge points developed by Transport for Greater Manchester (TfGM) with a private sector partner which accounts for approximately one third of the overall network. Approximately 20 private operators account for the remaining two thirds of the GM network, made up of national charge point operators and EV dealerships.

The installed capacity growth from the private operators has been driven by a steady growth of new entrants to the GM EV charge point market, since 2011 on average, the market has seen 1.5 new entrants per annum.

The private sector operators have a very different business model and charging speed offer compared to the Be.EV publicly funded network. 80% of the publicly funded charge points are made up of 7kW (fast) chargers and 20% of 50kW (rapid) chargers, whereas private operators have 91% of their network composed of chargers with a speed greater than 7kW. The private sector business model is typically focused on rapid (and ultra-rapid charging) to achieve the best commercial returns

on investment; located at service stations, key destinations such as retail car parks and hotels/travel accommodation car parks, and dealership forecourts.

On the basis of current policy and delivery mechanisms, it will simply not be possible to meet the forecast demand for charging points any earlier than the ICE ban timeline.

**2. How well is competition between EV charging providers working at present in the different sector segments and what are the key risks to effective competition (including any emerging competition concerns)?**

Currently both the EV and EV charging markets lack the scale for confident private sector led deployment. Measures need to be taken to help stimulate and shape a sustainable market to a point where public sector investment could reduce, subject to the private sector showing it is willing and able to invest in EV infrastructure. This could enable faster phase out of non-electric vehicles.

**3. How can competition in the different sector segments be strengthened as the sector develops, either by building on current policies and/or through other approaches?**

No response.

**4. What are the main existing and potential barriers to entry and expansion for EV charging providers and how can these be addressed?**

As stated above, the current EV charging market does not have the scale for confident private sector investment. To speed delivery, a National EV Charging Infrastructure (EVCI) Framework is urgently required to:

- Bring utility companies and local authorities together to deliver the necessary infrastructure at scale in their areas
- Forecast demand on which to base decisions and seek to create behaviour change related to the timeline for phase out of Internal Combustion Engines (ICE)
- Give certainty and spur innovation so the private sector will step up to deliver in the long term
- End out-of-area licensing for private hire which reduces efficacy of regulation

In addition, it is essential that both revenue and capital funding are provided to stimulate supply chains and cover maintenance.

**5. How can chargepoints be effectively deployed to ensure there is sufficient supply to meet future demand? What factors need to be taken into account?**

Whilst in the long term we believe the number of charge points required will be delivered by the private sector if the right incentives are put in place, in the short-term there is a significant role for the public sector to play to ensure EVCI meets demand, achieves the level of ambition required and creates market certainty.

**6. What incentives are there for private investment in EV charging infrastructure including within the different sector segments? How might incentives need to change for the future growth of the sector and development of competition?**

**7. What impact does public subsidy have on private investment incentives; are there any areas/gaps where public support is most likely to be needed?**

The private sector operators are unlikely to invest significantly ahead of demand particularly in areas where the investment returns would be less attractive. Residential areas with on-street parking are likely to require slow/fast chargers (either on-street or in local hubs) to encourage the transition to EVs for residents who do not have access to a garage or driveway. In the short term, private sector operators are less likely to provide for this segment due to the practical constraints in space and capacity as well as cost (in relation to utilisation and therefore investment returns). It is likely that public support will be needed to support social equity in access to EVs.

Workplace charging with slow/fast chargepoints that suit the vehicle dwell times of a typical working day, are also likely to offer less attractive returns to private sector operators.

**8. What is required in order to ensure that rural / remote communities and those without off-street parking are well served by charging infrastructure?**

No response

**9. What role should local authorities play to help deliver EV charging in a way that promotes competition? What support would they need?**

Our market monitoring and ongoing industry dialogue confirms the need for public sector intervention.

The installation of EV charging points in convenient locations requires the alignment of suitable land with utility provision combined with funding certainty to create a pipeline of delivery. This requires local authorities to work closely with the private sector.

A National Framework for local deployment of EVs would provide stability in relationships, analysis and regulation to create conditions for charging supply to be created ahead of demand.

A stable, devolved and coordinated funding stream, considering whole life costs and enabling local areas to work in partnership with the private sector to plan and deliver EVCI in a sustainable and integrated way will also be required.

**10. What can be learned from the different policy approaches taken in the devolved administrations for the EV charging market's development?**

No response

**Theme two: effective consumer interaction with the sector**

**1. What challenges or difficulties related to chargepoints might act as a barrier to consumers switching from a conventionally fuelled passenger vehicle to an EV and how might these be overcome?**

Despite most new electric cars offering mileage ranges of at least 150-200 miles, there is still a significant issue with a lack of confidence in the charging network. Consumers need to have full confidence in the technology, reliability and service levels of the charging network.

The interoperability of charge points is a key issue that directly impacts the appeal of EV ownership. Different physical and commercial systems must be able to work together seamlessly and invisibly to the consumer. Common standards are required to support charge point interoperability at the point of use. Any EV user should be able to charge their vehicle at any public chargepoint and pay for the electricity in a way that is transparent and fair. This will require a standard tariff unit (for example

pence/kWh) and common payment methods to mirror how drivers of ICE vehicles currently refuel where downloading an app or buying a charge card are not necessary.

Greater regulation and coordination is needed at national government level to manage development of areas such as:

- a roaming solution across the charging network;
- debit / credit card payment facilities at all public charge points;
- a standard tariff unit so consumers can compare prices; and
- facilitation of open data to allow EV drivers to plan their journeys and take informed decisions

## **2. What are the key challenges for consumers already interacting with the sector and how might these change over time as the sector grows?**

The lack of competition for EVCI means that consumers may experience a poor level of service but have very few (if any) options. As the market grows, this should drive up levels of service and provide greater options on price, reliability and technology.

## **3. How do consumers decide which chargepoint services and providers to use? What information do consumers need to make this decision and at what stage in the decision-making process?**

There are a few considerations here but the main contributing factor is convenience of location. Regardless of a pre-planned or unscheduled stop, if the charger is in the right place for you then it will be used. Speed is another consideration that will factor into the decision-making process. If you are part of a particular network then you may make some conscious choices to support them but, ultimately, if you need a charge then you need a charge. Price as little to do with these considerations in the same way as petrol pricing, unless you frequent an area locally and you need to hold that price up vs your home tariff.

## **4. Can consumers easily understand and compare charging tariffs in this sector and what barriers, if any, do they face?**

EV drivers should very quickly pick up on tariff prices and what they mean for them. There are often membership options but as we move to a more open network protocol, most will be able to tap and go with contactless. Zap Map and other mapping services usually list the tariff price and a quick calculation should provide them with the info they require to make an informed choice. It can be complex with connection charges and minimum values but generic price per kWh is often simple. With regards to more widespread drivers, there isn't enough of an understand for basic comparison to conventional fuel i.e. what does it cost to charge an EV and how far will it get me.

## **5. Do particular groups of consumers face additional challenges to interacting with the sector and if so, who and why? How might these be overcome?**

It is clear that the market is suited to a cashless society so anyone who doesn't quite feel comfortable with smart phones or card payments would struggle to use EV's beyond their own home charging points. You are unlikely to come across any charging point that can be utilised with a cash transition. The way to overcome this is what Tesla have done, your vehicle is read automatically by the charger and just requires a one-off setup. In addition, those living in housing stock that cannot have a charger that belongs to them, will still see some difficulties owning an EV until the local charging networks pick up or workplace charging becomes the norm.

**6. Are there any technological developments or tools that could support consumers to navigate the sector, for example by helping to make more informed choices?**

There could certainly be more clarity around speeds and pricing. Very much like broadband, chargers are often publicised by maximum speeds instead of the actual speeds that are delivered on site by the charger. This can have an impact on consumer decision, particularly on rapid chargers. Charging consumers based on the maximum speed of the charger and for it not to perform to that level, may cause more widespread issues in the future.

**7. Are existing protections offered by consumer law and other measures (such as sector regulations) sufficient?**

Echoing the point above, they appear to be insufficient around speeds and interoperability of charging point usage.

**8. What, if any, open data measures are needed to support consumer interaction, such as through the growth of comparison sites and apps?**

This is certainly required to allow more interoperability amongst providers. Contactless payment will go some way to resolving this issue but there are limited options in the slower chargers that do not have as much money going through them. They require a much more informal agreement between providers and some of the bigger players are not interested in supporting this method due to the long payback period on investment.

**9. What else is required to help ensure that the EV charging sector develops in a way that is responsive to consumer needs?**

A much better understanding of the cost of a kw/h and how that will likely get you in your vehicle. It will certainly help people make more informed choices when choosing an EV over a conventionally fuelled vehicle.