

Competition and Markets Authority – EV Charging Market Study:

Invitation to Comment – ELECTRIC VEHICLE ENGLAND RESPONSE, JANUARY 2021

Theme one:	Developing competition while incentivising investment	EVA England responses
Question 1.	How is the EV charging sector developing and how will technological or other developments (for example smart technologies) impact sector development and competition?	<p>There are a good number of players on the field; a developing mix of established companies and start-ups, as well as a mix of domestic and international market entrants. Most offerings are middle of the road both from a pricing and technology perspective. There are exceptions where high power charging (350kW) is available, at a premium, and at the other end some destination charging is still being offered on a complimentary basis as part of other products/services e.g., supermarket shopping.</p> <p>EVA England welcomes Government’s vision for the rapid chargepoint network (May 2020), the recent Government announcement of additional investment in all aspects of charging, and the plan to produce an EV Infrastructure strategy in 2021.</p> <p>One of the key ways that the EV charging industry should be supported, to the benefit of consumers, is in the use of smart pricing. Just as home charging is moving more and more to market pricing, the public charging industry should be supported to ensure that the grid and variable production can be taken full advantage of. Cost should reflect demand on the grid, with higher pricing during peaks, and lower pricing off-peak. Smart technologies e.g., for load / grid management have an essential role to play in both home, work and public charging, not least of all as a key enabler to accelerating GB flexibility markets. Alternatively, storage development can be supported via planning and financing routes.</p> <p>The resultant experience by consumers is in general that development of the charging infrastructure is still based mainly on competition between charging companies with bottlenecks on certain routes, and that needs-based strategic planning could be strengthened. The availability and maintenance of chargepoints</p>

		<p>were two key problems highlighted by respondents to EVA England’s July 2020 survey.¹ Several responses welcomed the role of Government in driving and coordinating the implementation of national charging infrastructure.</p> <p>There are a range of positive – but not yet fully coordinated – initiatives, such as the emerging partnership models between Chargepoint operators and the energy retailers (suppliers) [REDACTED] making it easy for customers to pay for public charging with a card that bills straight to customers’ domestic energy bill; and new initiatives from certain CPO networks [REDACTED].</p>
<p>Question 2.</p>	<p>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)?</p>	<p>To date cost competition between charging companies has been healthy and, in some cases, intense. However, it is rarely transparent owing to the different ways that costs and tariffs are represented.</p> <p>Furthermore, from the driver’s perspective the greatest barrier to making the suppliers compete for their custom is still the different apps, RFIDs and subscription schemes. Even if pricing was transparent the inconvenience of using the various access methods is a barrier to voting with one’s feet. To download yet another app and set up payment methods & accounts to take advantage of slightly lower destination charging rates, may seem like a disproportionate effort to save less than a pound. This can distort competition. Simple contactless payment should be standard, as it is with petrol/diesel cars.</p> <p>Motorway and A-road service stations are also a concern. Competition on those is currently limited or absent and if the current EV charging suppliers and fossil fuel companies are not challenged by wider competition this will lead to a negative impact on pricing, reliability and the general service experience. There is an urgent need for greater transparency with regards to emerging plans to upgrade charging services across Motorway Service Areas ahead of the predicted expansion in EVs to 2030 and beyond – to offer reassurance to current and prospective EV drivers that the public charging network [REDACTED] will improve, and become more reliable, and that there will be greater competition.</p>

¹ EVA England ran a survey of 1,114 current and prospective EV drivers in July 2020. The results were analysed and utilised in EVA England’s response to the Government’s consultation on ending the sales of new petrol and diesel cars and vans.

Question 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?	<p>The CMA Invitation to Comment recognises the complexity of what drivers have to comprehend and manage. For many drivers the complexity itself may be more of a deterrent than cost – as the current costs of charging power are already so much less than ICE fuels. Key goals for a successful charging infrastructure structure need to be:</p> <ul style="list-style-type: none"> a) That access is simple as well as easily available b) That payment is simple and does not require multiple Apps or RFID cards c) Tariffs are transparent and any subscription charges also allow the consumer to make informed decisions based on their requirements d) The language used across CPOs is in plain English, readily understood, and consistent <p>Effective competition will be dependent on the implementation of strong planning strategies, which can support competition either through a requirement to arrange charging at destinations in sufficient numbers e.g., destination charging at stations, airports, and hotels or approving applications for high powered charging installations unless there is proven significant harm. Another physical infrastructure requirement is to have sufficient powerlines where they are needed, if a transport hub might have sufficient demand for more charging capacity then supporting the provision of those lines should be the key priority for the power companies, grid operators, local and national government.</p>
Question 4.	What are the main existing and potential barriers to entry and expansion for EV charging providers and how can these be addressed?	<p>EVA England sees the cost of implementation and cost of maintenance as key barriers and would highlight the importance of subsidy or tax relief by government to support infrastructure. It is also necessary for there to be integration with local councils for planning/best strategic location, as well as guidance to local councils on how to expand the network and how to get neighbouring local councils to work together to provide a network.</p>
Question 5.	How can chargepoints be effectively deployed to ensure there is sufficient supply to meet future demand? What	<p>Deployment requires a strategic ev charging infrastructure plan based on expected needs for:</p> <ul style="list-style-type: none"> a) On street charging b) Off street charging c) Workplace charging d) Rapid Charging for both towns and cities, as well as all major trunk routes, tourist destinations etc.

	factors need to be taken into account?	The petrol station network has grown organically over decades and follows consumer demand. The difference with EVs is that they can be charged when the user is doing something else. The key to the success of EVs is to ensure that there is sufficient suitable, slow, charging where cars spend >90% of their time – in a parking space, for instance. Charging availability is critical where the cars are not being driven, whether it is off-street, on-street, office, train stations, airports, hotel parking or any other location where a car is not in use. If the majority of charging is done when the vehicle is otherwise unused it will take some of the pressure off fast and rapid charging.
Question 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?	Ultimately consumer demand needs to determine the locations and number of chargers. While the industry is developing, the incentives should be geared towards enabling new technology and ensuring the underlying infrastructure is up to task e.g., high-capacity local electricity networks at service stations and other charging hubs, allowing for significant increase in commercially funded fast and rapid chargers where needed.
Question 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?	See above and: Long term public subsidy or incentives can give the commercial players a slightly reduced risk, which may make the business case viable. See 8 below for rural areas.
Question 8.	What is required in order to ensure that rural / remote communities and those without off-street parking are well served by charging infrastructure?	Rural/remote and on-street parking require a public-private partnership and ideally with local people and EV drivers involved in the infrastructure development plans. Local authorities have a key role in ensuring that they provide maximum access to these markets for private businesses. National incentives could be channelled for local authorities to ensure the maximum effectiveness of taxpayer-funded incentives. Responsibilities and funding need to be clear between the different tiers of councils to ensure that their population is served. Chargepoints in remote rural areas may need greater subsidies and different patterns

		<p>of chargepoint provision. There is a need to address the current unequal distribution of chargepoints across different areas of England.</p> <p>Public/private partnerships should be underpinned by a robust strategy that takes into account:</p> <p>Driver needs / travel patterns and usage (which will differ between different areas, and where rural areas will require special consideration)</p> <p>Distribution electricity network capacity - a recognition that rural energy networks (underground cables and overhead lines) may not have as much electricity capacity as a network in a town or city.</p> <p>Linked to electricity network capacity are connection costs - which may be prohibitive if the network does not have capacity and reinforcement / network upgrades are needed</p>
Question 9.	<p>What role should local authorities play to help deliver EV charging in a way that promotes competition? What support would they need?</p>	<p>Local authorities currently play a number of roles:</p> <ol style="list-style-type: none"> a) They typically tender for commercial chargepoint operators to provide, on-street fast chargers and some rapid chargers in towns and cities b) They own the land on which Chargepoint operators install chargepoints – in which case they may exercise their power in terms of planning permission and charge rental. These situations have led to a number of unresolved conflicts between local authorities and chargepoint operators leading to a stalemate situation in which chargepoints may be out of action for many months c) They may own chargepoints which are managed under the banner of particular commercial chargepoint operators, from whom they originally purchased them. These have also led to conflicts about payment for repairs after the warranty of the chargepoint has expired – again leading to many months of the chargepoint being out of service d) Work with neighbouring local authorities to ensure a joined-up approach in that area e) Combine street furniture with charging opportunities e.g., streetlights <p>Local Authorities need to actively partner with Chargepoint operators by providing space for charging either at their existing locations or by expediting positive planning decisions for charging hubs. Every local authority must create an EV strategy that includes parking, charging, zero emissions public transport, home</p>

		charging for both on and off-street and other EV incentives such as reduced parking charges. In addition, there is a need for examination and understanding of why take up of grant support for EV chargepoint installation has been low amongst certain councils to encourage grant uptake. It is important to establish equitable provision for chargepoints on street.
Question 10.	What can be learned from the different policy approaches taken in the devolved administrations for the EV charging market's development?	We suggest that you consider the points made by EVA Scotland in their response. However, we would like to highlight the importance of EV drivers being able to drive and charge seamlessly across England, Wales, Scotland, Northern Ireland and the Republic of Ireland.
Theme two:	Effective consumer interaction with the sector	EVA England responses
Question 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?	<p>There are multiple public perceptions about EV charging; some are valid, others not. It is critically important to enable sufficient infrastructure in advance of the increase in demand for EVs or consumer confidence will suffer. Respondents to EVA England's July 2020 survey highlighted the main barriers surrounded the availability of chargers, especially when needed to continue a journey, as well as the need for more reliability in chargepoints. Although the utilisation rate of public chargers can appear low to operators, there are bottlenecks and queues or lack of sufficient chargers on key routes. There are important issues also with ICE cars parking in charging bays, low charging speeds causing extended waiting times when chargers are busy, and not all chargers having contactless universal payment option. EV charging is not as visible or well signposted as petrol stations. There can be some very long times when chargers are out of service, with too many chargers offline when needed. There also needs to be a significant increase in on-street charging.</p> <p>We welcome the Government's planned consumer charging experience consultation early this year which will give EV drivers and EVA England the opportunity to share their experiences, and the Government the opportunity to improve regulation where needed.</p>

Question 2.	What are the key challenges for consumers already interacting with the sector and how might these change over time as the sector grows?	<p>We would cite the same answers as above, but also suggest that a minimum standard of maintenance should be established for EV chargers to mitigate such issues. Incomplete or incorrect information on apps is also a problem for drivers. We suggest that you also consider the consumer feedback provided by ZAP Map “Major new Zap-Map survey ranks top 16 charging networks as rated by EV drivers” latest results of the chargepoint survey published by zapmap recently - https://www.zap-map.com/revealed-uks-top-ranking-electric-vehicle-networks/</p>
Question 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?	<p>Consumers very often decide on the basis of immediate need and regular journeys as well as pricing and reliability. If the need is to complete a journey, the key decision factors are convenient location and service availability. Pricing is often secondary with speed and convenience being more of a factor. If a consumer is looking for a regular service provider then local area availability, reliability and price are of more importance as those visits can be planned. The information needed in both cases is about locations, compatibility, current availability (out of order/in use), payment methods (contactless, and both debit and credit cards enabled) and clear pricing displayed clearly either as one off or if there is a real benefit from subscription service for regular use.</p> <p>To summarise:</p> <ul style="list-style-type: none"> - Most convenient – if you need to charge, you need to charge and so many consumers choose on where is the nearest convenient chargepoint on a particular journey - Loyalty to a provider will only occur if based on a favourable interaction/convenience/cost (as long as there is competition) - [REDACTED] <p>Increasingly consumers are and will use social media to try and find out what chargepoints and installers to use – e.g., Facebook Groups dedicated to EVs. There is a new wave of price comparison websites emerging in the EV and charge point space [REDACTED]</p>

		<p>There are also some welcome industry assurance schemes for consumers.</p> <p>EVA England will increasingly bring together these sources of information as a one stop shop for both current and prospective EV owners helping them navigate more easily through the decisions when buying and owning an electric car.</p>
Question 4.	Can consumers easily understand and compare charging tariffs in this sector and what barriers, if any, do they face?	<p>No. It is complex. They can either find information from sponsored providers or maps which means clicking separately on each location to understand the cost. It is hard to find a simple, non- sponsored table of options.</p> <p>If prices are in pence/kWh units, the comparison is similar to comparing liquid fuels to pounds/litre. But if a time component is mixed into the pricing it makes the comparison difficult due to different charging speeds of the vehicles especially if there are ‘non-standard’ speeds. Subscription prices may be confusing due to the monthly charges which may make seemingly low kWh prices high unless one uses the service regularly and charges significant number of kWh each month.</p> <p>For the consumer the clearest is p/kWh. If there is a premium for high powered chargers it should be made clear that the consumers need to know their vehicles charging speeds before using and benefiting from the higher speeds.</p> <p>Early roaming models must provide clear cross-network pricing to consumers.</p>
Question 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?	<p>We would highlight three groups that face additional challenges:</p> <ul style="list-style-type: none"> - Mobility impaired people when using public chargepoints – may be too heavy/cumbersome – payment mechanisms are placed too high up on console to reach if in a wheelchair. - Lone women and other vulnerable groups – waiting for EV to charge at night can add a level of vulnerability. There is a need for well-lit areas and CCTV.

		<p>- Non-tech savvy customers (and/or customers without smartphones) also would find aspects of the current provision confusing – hence the need for easy contactless card payment.</p> <p>It is also important that drivers needing to use on street parking are not disadvantaged in terms of access to convenient charging, and its cost compared with drivers with off street parking.</p>
Question 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?	Contactless payment is needed for all chargers meant for public access so any driver can access them when needed. Any loyalty schemes via apps and other payment methods must provide additional benefits for regular users, but consumers must not be required to use them. Price comparison and location apps are likely to develop according to use. Smart charging based on market pricing should be developed for public charging as well to steer regular users to charge when the grid is at its greenest.
Question 7.	Are existing protections offered by consumer law and other measures (such as sector regulations) sufficient?	We support the CAB' s call for a proportionate and flexibility regulatory approach for third party intermediaries (TPIs) this might include some companies that offer Vehicle to Grid or other aggregation services and might also include price comparison websites that give you information about smart chargers or make tailored recommendations for what customers should have installed/buy. This is important as poor practices by some TPIs will undermine consumer trust, while a lack of regulation may allow energy suppliers to lock innovative TPIs out of the market.
Question 8.	What, if any, open data measures are needed to support consumer interaction, such as through the growth of comparison sites and apps?	<p>Greater visibility of EV charge points at a domestic level is required to enable the Distribution Networks Operators (DNOs) to identify emerging hot spots of EV clusters on the Low Voltage (LV) local electricity network. Whilst it is well-documented that there is no issue with EV demand at National Grid (transmission) level, there could be an issue at the local level, i.e., the network of underground cables and overhead lines that act as the conduits of electricity to homes and local businesses. This is well documented and evidenced through innovation projects such as My Electric Avenue and Electric Nation. Smart charging has a critical role to play here in terms of demand management; however the DNOs still lack the visibility of where cars are being charged on the LV network, albeit there is a notification system in place via the OZEV Homecharge Grant Scheme.</p> <p>As EV uptake accelerates, the DNOs will need more rapid notification and even pre-notification in order to manage and plan their LV networks effectively, and facilitate uptake (as an example, see the SSEN and UKPN</p>

		<p>project 'Skyline' and its' early notification system for EV drivers). Overcoming any barriers to notification in terms of open data would be a key enabler to making notification more streamlined. Customer consent will always be critical – this should be seen as an enabler to open data, rather than a barrier.</p> <p>The CAB has highlighted how important it is that chargepoint data (such as price, speed, location and current availability) is made open for companies to innovate and offer consumers services, which helps them identify where chargers are, what they cost, and if they're available for use. This increases public confidence.</p> <p>There are a number of emerging price comparison websites, which we welcome, [REDACTED]</p> <p>EVA England will be aiming to bring these and other helpful sources of information together, as a one stop shop for both current and prospective EV owners to more easily navigate through the decision points when buying and/or owning an electric car.</p>
Question 9.	What else is required to help ensure that the EV charging sector develops in a way that is responsive to consumer needs?	Where possible, regulation in the EV space should be enabling and supportive rather than restrictive. The EV shift requires a wide public-private partnership where the public sector supports the quick growth of a genuinely competitive market to meet an exponentially growing market. The regulations and incentives should take a long-term, reasonably low oversight, approach to support different technologies; however there should be a strong bias towards zero emissions energy production for the EV transition.