



RAC response to CMA market study into electric vehicle charging sector

This response has been written by Nicholas Lyes, RAC Public Affairs Manager, on behalf of RAC Motoring Services

About the RAC

The RAC provides complete peace of mind to 12 million UK private and business drivers, whatever their motoring needs. We provide breakdown assistance, with a 1,600-strong branded patrol workforce attending more than two million breakdowns every year, fixing on average four out of five vehicles at the roadside.

Additional products include insurance, a used car buying website, vehicle inspections and checks, legal services or up-to-the-minute traffic and travel information.

The RAC also works to support the interests of its members and UK drivers on the most important motoring issues which it identifies via the annual RAC Report on Motoring and the RAC Opinion Panel. The Report on Motoring is the longest running analysis of driver opinion in the UK having been published every year since 1989. The 2019 RAC Report on Motoring can be found [here](#). The RAC website can be found at www.rac.co.uk.

RAC Response

Introductory Questions

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?**

The RAC isn't in a position to respond to this.

- 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)?**

The RAC isn't in a position to respond to this.

- 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?**

The RAC isn't in a position to respond to this.

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

The RAC isn't in a position to respond to this.

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



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The most pressing issue is to provide fast, reliable public charging for EV owners so those who do not have access to off-street parking at home and those who make longer journeys can quickly and easily charge.

While most journeys, such as commuting, are likely to be covered by home charging and charging at work, an estimated one third of households in England^[1] do not have off-street parking, which means home-charging may be very difficult. Easy access to rapid charging facilities may, however, make running an EV possible for this group. In addition, it is a necessity for people who occasionally or frequently make longer journeys will need to use ultra-rapid public charge points, as without it these journeys would not be reasonably practical from a time point of view. This will also help reduce so-called 'range anxiety' which is recognised as being a barrier to EV take-up. We believe more ultra-rapid public charge points and/or charging hubs need to be made available everywhere. This provision should always be increased in line with the number of EVs on the road. Charge point operators should work with Highways England / Transport Scotland / Welsh Government / NI Government and local authorities to understand where infrastructure is likely to be most beneficial and to understand the type of journeys the infrastructure will need to cater for.

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?

The RAC isn't in a position to respond to this.

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 RAC isn't in a position to respond to this.

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

Research from the 2020 RAC Report on Motoring shows that more than four-in-10 drivers (43%) say they want the Government to set a binding national target for access to public charge points, such as ensuring 95% of the population live no further than five miles from the nearest charge point. Targets like this should ensure that rural communities are not unfairly disadvantaged as EV take-up increases.

As outlined in our response to question 5, almost a third of households in the UK do not have access to off-street parking. Therefore, solutions such as on-street charge points (using lampposts where possible) and EV local fast charging hubs could be considered.

[1]

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/898459/DA2201_Parking_and_mains_gas_-_dwellings.xlsx

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

The RAC isn't in a position to respond to this.

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

The RAC isn't in a position to respond to this.

Theme two: effective consumer interaction with the sector

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

We believe the following challenges might act as a barrier to consumers switching from a conventional vehicle to an electric vehicle:

- **On-street charging availability:** How realistic will it be for the estimated third of households in England without off-street parking/driveways to have the ability to charge their vehicles on street when at home? A significant proportion of drivers park their vehicles on street when at home. **Solution:** easy access to ultra-rapid/rapid charging facilities wherever drivers live so no need for home charging, as well as using electricity from existing lampposts.
- **Renters/Leaseholders:** We believe that those renting or those in leasehold properties (where they do not own the land) will encounter more difficulty in asking their landlords or the landowners to install electric charging infrastructure. **Solution:** While we welcome this being partially being offset by local ultra-rapid charging hubs, we hope that the planning system allows for fast installation of such hubs. Planning/land laws to allow for leaseholders and renters to have a right to charge may also need to be looked at.
- **Availability and reliability of public charging points,** particularly given the time to charge compared to a few minutes of refuelling. Research from the 2020 RAC Report on Motoring shows that 43% of drivers believe the Government should commit to a national target for charging points to encourage take-up, the second most popular option after a scrappage scheme to encourage initial EV take-up. **Solution:** The Government should commit to national target which is always proportionate to the number of EVs on the road. This should include a commitment to a target percentage of ultra-rapid/rapid charge points.
- **Charging costs:** There is significant scope for confusion when it comes to charging, with subscription-based platforms as well as manufacturer-based charge points (e.g. Tesla) as well as pay as you charge public charge points. **Solution:** We believe it is important that buyers of electric vehicles are given as much fair information as possible when they purchase an electric vehicle, making sure they have as much impartial information as possible about how they wish to charge their vehicles and what would provide them best value for money.
- **Display and transparency of costs:** We believe it is important that the pricing for charging is clear, transparent and nationally consistent. **Solution:** In the same way owners of petrol and diesel vehicles can clearly see a 'pence per litre' cost, we feel there should be a standardised approach for charging electric vehicles, for example 'pence per



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kw/h'. We also think it would be helpful if this were displayed outside a charging forecourt in the form of a totem.

- **Reliability and access to charge points:** While it is important to increase the number of public charge points, it is also vital that these provide reliable access. It will become extremely frustrating for owners if public charge points are regularly out of order and/or out of order for extended periods, and additionally if conventionally fuelled vehicles are parking in EV parking bays blocking access to charge points. **Solution:** Charge point operators should be required to report 'up time' of all their devices on a regular basis to give drivers confidence in the reliability of the network.
- **Speed of charging:** At the moment it's far slower to 'top up' compared to an ICE vehicle – increasing the need for the fastest charging infrastructure, particularly on busy routes. **Solution:** Targets for charging points should not just be a number-orientated but should be based on use demand and by speed.
- **Reliable and safe home charging:** We have had some members report that power surges have damaged their vehicles' high-voltage batteries when charging at home. **Solution:** we would encourage the CMA to investigate whether installers are informing consumers of the risks of power surges to their vehicles and offering adequate surge protection at installation. Vehicle manufacturers should also make sure consumers are fully aware of this potential issue when home charging and what is required to protect against this.
- **Connector types:** Due to there being an increasing number of electric vehicle models with so many different connectors and charging requirements, we believe there may be confusion among consumers about which chargepoints their vehicle is able to use and is compatible with. There is a need for greater standardisation to reduce the confusion which may hinder mass take-up.
- **Taxation:** A separate, but related issue is how you replace fuel duty revenues as the number of electric vehicles on the road increases. Taxing vehicles at the source might be a solution, but HM Treasury will need to work with stakeholders on any new road pricing scheme should they consider this.

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

- **Multiple charging standards/operators/subscriptions/platforms:** arguably, the current market for charging at home or at a public charge point is complicated for drivers not familiar with the market to understand. How do drivers know they are getting good value for money from one public charge point to another? How do they know they are on the best electricity tariff when charging at home?
- **Charging costs:** As described in our response to question 1, consumers need more clarity on the different payment methods and what works best for them, We also think that all charge points (not just rapid ones) should be enabled to accept contactless payment and that pricing should be standardised and transparent for consumers.

Wider issues affecting take-up of EVs

- **Costs:** Upfront cost is currently an issue but should lessen as model options increase. Research for the 2020 RAC Report on Motoring found that 78% of drivers believe that



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electric vehicles are still too expensive when compared to similarly sized conventional vehicles, while 64% believe that manufacturers need to offer more EV choice before consumers consider one.

- **Real-world range:** There is still a discrepancy between what manufacturers advertise as range on a single charge and what is realistic in real world driving. For example, the impact of cold days (when heating is required) and hot days (when air conditioning is needed) both have a noticeable impact upon a vehicle's range. It is also the case that range figures do not show how efficient different electric vehicles are, with larger, heavier EVs offering lower 'miles per kilowatt hour' than smaller, lighter ones. Efforts should be made to inform drivers of this before they select an EV
- **Battery:** There remains a level of uncertainty over the impact on consumers if a battery needs replacing, including costs and the effect that different types of charging speeds might have on the condition of the battery. For example, would frequent use of ultra-rapid charge points lead to quicker battery degradation?
- **Resale value of EVs:** There is an element of the unknown currently in the second-hand market about whether the resale value of an electric car will be better or worse for the seller when compared to selling a conventionally fuelled vehicle.

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

Consumers need to know what their charging options are both when they purchase their vehicle, and when out and about and needing to use a public charge point. Manufacturers and those selling the vehicle might give consumers impartial advice and not necessarily direct them to manufacturer-based charging and pricing options but give fair advice on all charging options available. In other words, consumers need to feel like they are not 'required' to use certain types of charging points or tariffs. An online market price comparison website might also fill the void here too.

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

Presently, we have no evidence from current electric vehicle owners, though we would encourage the CMA to engage with organisations that have access to a large sample of electric vehicle owners to understand current challenges these owners face.

Refuelling a petrol or diesel vehicle is seen as simple, universal and fast with a fixed and easy to read and understand price listing (pence per litre). This currently is not replicated across the EV charging sector. We believe something which comes close to the simplicity and clarity of refuelling would be ideal to make a mass switchover more likely but accept the difficulties (varying charging speeds/capacities/vehicle specifications etc).

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?

Due to the issues identified in our response in relation to charging tariffs, connector types and a lack of overall rapid charge points, we believe the following groups could face additional challenges when interacting with the sector:

- Those without a modern mobile phone or smart phone (ie some charge points need apps/online accounts), and/or a bank account (making using any chargepoint impossible)
- Elderly (aged 65+) While our research suggests those drivers are less likely to opt for an EV compared to younger drivers, those that do may struggle with away from home charging as well as the different tariffs and payment methods.
- Those without access to off-street parking, such as those who have to park on the street when at home.
- Those that live in flats/high rise developments where they have limited private parking or do not own the freehold therefore are unable access charging points where they live
- Disabled road users: Chargepoints often tend to be standalone devices with no supporting other infrastructure, and unlike fuel forecourts where there are people that might be able to assist disabled road users.

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?

The RAC is not in a position to fully answer this, however we believe Zap-Map provides a worthwhile overview on understanding the different charging speeds available¹ in the sector which could help inform consumers.

More drivers might switch to electric vehicles if they were aware that organisations such as the RAC are already equipped to charge 'flat' electric vehicles at the roadside.

The RAC introduced an [EV Boost system](#) which is currently installed in over 80 of our vans and we will continue to roll this out in the upcoming year to provide owners of electric vehicles with a 'top up' should they run out of charge. The system will be upgraded to give a 7 kw/h charge with a maximum capacity of 10 kw/h.

In addition to this, half of our patrol vans are now fitted with our 'all-wheels up' recovery system, which can fully lift all four wheels of broken-down vehicles enabling our patrols to recover these vehicles that would normally need to be recovered separately. This will potentially save hundreds of thousands of drivers' time and stress every year by avoiding the need to call out an additional recovery vehicle. Electric vehicles are heavier than similarly sized conventional vehicles, which means the innovation reduces the need to employ larger HGV flatbed recovery vehicles.

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

The RAC is not in a position to answer this.

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

We believe the following would be beneficial to support consumer interaction:

¹ <https://www.zap-map.com/charge-points/connectors-speeds/>



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- Public charging point locations by connector type: These should list where universal and working charge points are in operation and preferably a simple cost for use.
- Data showing real-time 'out of service' charging points to reduce the chances of consumers being unable to charge and to be able to fully plan their journeys. It would also be helpful to understand which charge points by operator is most reliable, which would help drive up operating standards in the sector.
- Average 'pricing' – pence per kw/h – to use public charge points. We're not entirely sure comparison websites will be of much use unless we have some sort of universally consistent pricing across the sector.

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

No further comments

Please address any comments or further contact to:

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