

# Future of Transport Regulatory Review – Zero Emission Vehicles

Response from the Competition and Markets  
Authority

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# 1. Overview

- 1.1 The Competition and Markets Authority (CMA) is an independent non-ministerial government department and is the UK's lead competition and consumer authority. Our statutory duty is to promote competition, both within and outside the UK, for the benefit of consumers, and our mission is to make markets work well in the interests of consumers, businesses and the economy. We have staff and offices in each of the nations of the UK.
- 1.2 The CMA has a range of tools to enable it to fulfil its duties, including market studies and market investigations. These market tools enable the CMA to conduct an in-depth analysis of how a market is working, identify and examine possible issues and publish its conclusions. This includes considering practices across a range of goods and services and looking at developing markets. The CMA may also give information and advice to governments and public authorities across the UK on matters relating to its functions - including on the design and implementation of policy to harness the benefits of competition and protect and promote the interests of consumers.
- 1.3 The CMA is responding to the Future of Transport Regulatory Review on Zero Emission Vehicles using its advisory powers, building on the findings and recommendations in our recent Electric Vehicle (EV) Charging Market Study. We will continue to work cooperatively with governments across the UK to take forward our recommendations from this study and help ensure a healthy EV charging sector develops for the benefit of all consumers.

## 2. Summary of Electric Vehicle Charging Market Study

- 2.1 The transport sector is the largest source of carbon emissions in the UK. The majority of these emissions come from cars,<sup>1</sup> and therefore a smooth transition to EVs will be critical to achieving the UK government's legally binding commitments for [Net Zero carbon emissions by 2050](#). This shift is also important in the context of the government ban on the sale of new petrol and diesel cars from 2030.
- 2.2 In December 2020, the CMA launched a market study into EV charging<sup>2</sup>, to make sure that this new and fast-growing sector works well for UK drivers. We examined whether the industry can deliver a comprehensive UK charging network that works competitively and that people can trust. The study covered two key themes:
- a) whether the sector can deliver the scale and pace of investment needed in a way that also enables a competitive sector which delivers good outcomes to consumers, and what measures can help to unlock competition and incentivise investment in the sector; and
  - b) how people interact with this new and potentially complex sector and any problems they may face, and what measures may be needed to ensure charging is easy and convenient, so that mistrust does not become a barrier to roll-out.
- 2.3 We found that while some parts of this new sector are developing relatively well – including charging at locations like shopping centres, workplaces and people's private parking (garages and driveways) – other parts are facing problems which will hinder roll-out. This could impact the government's commitments to Net Zero and to ban the sale of new petrol and diesel cars.
- 2.4 In particular, the CMA is concerned about the choice and availability of chargepoints at motorway service stations, where competition is limited; that the roll-out of on-street charging by local authorities (LAs) (which many drivers without access to off-street parking will likely rely on) is too slow<sup>3</sup>; and rural areas risk being left behind with too few chargepoints due to lack of investment.
- 2.5 In addition, evidence shows that charging can sometimes be difficult and frustrating for drivers, which could undermine people's trust and confidence in

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<sup>1</sup> BEIS, [2020 UK greenhouse gas emissions, provisional figures, March 2021, page 11](#).

<sup>2</sup> Competition & Markets Authority (2021) Electric Vehicle Charging Market Study [Final report](#).

<sup>3</sup> For example, we found that outside London there are only 1,000 on-street chargers (out of 5,700).

the sector and stop people switching to EVs. We found evidence of concerns about the reliability of chargepoints, difficulties in comparing prices and paying for charging, and that emerging developments like subscriptions and bundling could create more problems in the future like 'lock-ins' (difficulties exiting contracts).<sup>4</sup>

- 2.6 We believe that charging needs to be as simple as filling up with petrol or diesel. Our final report set out eight recommendations to unlock greater investment, promote competition and boost people's trust in the sector.

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<sup>4</sup> For example, we found that there are 160 different pricing models which makes it difficult to compare pricing. Chapter 7 of our Market Study report provides further detail and sources of evidence.

### **3. Response to regulatory review**

- 3.1 Below we have presented a broad response that follows the structure of the consultation document. Please note that we have not directly provided answers to each of the consultation questions.

#### **Statutory obligation to plan for and deliver a charging infrastructure**

- 3.2 The opportunity of a major increase in demand for EV charging, supported by government funding, has driven investment, entry and emerging competition in the EV charging sector. For example, over the period 2016 to 2020 the number of chargepoints has more than tripled, from over 6,000 to more than 20,000. To date, there are over 27,000 public chargepoints<sup>5</sup>. However, our study found that the pressing need to deploy charging networks rapidly and overcome several significant barriers to investment and competition means that market forces alone will struggle to deliver. Therefore, we consider that active government involvement in the EV charging sector is essential to deliver a comprehensive network within the ambitious timeframe to achieve Net Zero.
- 3.3 Our market study found that on-street charging is facing challenges, where roll-out has been patchy and slow. In particular our report noted that:
- (a) On-street chargepoints are an important form of charging for over a quarter of drivers estimated to have no off-street parking<sup>6</sup> - it is more convenient, cheaper and provides more flexibility to the electricity network than other options like rapid charging.
  - (b) However, the commercial case for private sector financing of on-street charging is currently very challenging. The single largest issue for private investment is the low utilisation at present of on-street chargepoints and high costs, leading to the 'chicken and egg' issue where demand/utilisation and investment in charging infrastructure are dependent on each other.
  - (c) The roll-out of on-street chargepoints is currently largely dependent on public funding delivered through procurement by individual LAs who contract with chargepoint operators. LAs play a key gatekeeper role as

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<sup>5</sup> Source: Zap-Map, 19 November 2021.

<sup>6</sup> Estimates of the number of households without off-street parking vary. For example PwC found that in the UK 28% of drivers do not have off-street parking. Field Dynamics estimated that approximately 32% of households in Great Britain outside London do not have access to off-street parking (7,800,000 households).

they control access to the kerbside and other sites for installing on-street charging, as well as having a good understanding of local residents' needs and the suitability of sites in a local area for charging. But we found that they can face a number of challenges in rolling-out on-street charging – including a lack of a clearly defined role, in many cases not having the capabilities and resource to plan and oversee roll-out, and some difficulties accessing funding.

- 3.4 We recommended that LAs take a more active role in planning and managing the roll-out of on-street charging to maximise competition and protect local residents from the risk of poor outcomes, putting in place clear local plans and taking into account key factors we have set out in carrying out this role. These factors are set out in more detail in our report<sup>7</sup> but include: managing price and quality (through tenders); flexibility in contract awards to provide access to the widest possible range of chargepoint operators; taking a collaborative approach, working with other LAs and other key bodies (such as Distribution Network Operators) where feasible to deliver greater scale and efficiencies; and where possible taking a demand-led approach to installing chargepoints.
- 3.5 In addition, to allow LAs to take this more active role, we also recommended that governments take action to ensure that LAs are properly equipped and incentivised, while also providing sufficient support and oversight. This step change can be achieved by:
- providing funding for dedicated expertise;
  - clearly defining the role e.g. introducing a statutory duty;
  - facilitating greater knowledge and sharing best practice; and
  - proactively encouraging and supporting any LAs that are lagging behind.
- 3.6 Therefore, in line with our recommendation and report findings, we would support and welcome the proposals for a statutory obligation for LAs to plan for and provide charging infrastructure, to help provide much-needed clarity to LAs on their role in charging provision. As set out in our report, EV charging is not currently one of their statutory duties and so it can be a lower priority, particularly given many competing demands on their resources and the other services they must provide. Alongside this, our recommendation also set out other actions for governments to equip and incentivise LAs which we consider is also important to take forward alongside a new duty.

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<sup>7</sup> In particular see Figure 9 in the Market Study report.



## **Chargepoints in non-residential car parks**

- 3.7 We found that there is significant private sector investment appetite in destination charging in places such as shopping centres and supermarkets, retail outlets, leisure facilities, hotels, restaurants, tourist attractions, and town/city centre car parks. Chargepoint operators told us that there are many landowners of such sites that they can reach agreements with to install chargepoints and that this is an easy process (particularly, easier than engagement with LAs). Landlords at these sites are often supportive of these investments as they can help drive footfall at these destinations.
- 3.8 Similarly, in workplace charging, we found that there are a large number of firms active and competition between firms is generally developing well. No significant concerns were raised by stakeholders about competition in workplace charging with some industry stakeholders noting that it was highly competitive. In particular, there appear to be low barriers to entry with many firms entering in recent years.
- 3.9 Nevertheless, we support the government's proposal to introduce a power enabling it to require landowners to install chargepoints in non-residential chargepoints if needed – given the importance of ensuring there is sufficient provision of charging infrastructure. However, in line with our findings, we also support the government's plans to monitor how investment develops in these parts of the sector (destination and workplace charging) before using this new power.

## **Making the Rapid Charging Fund**

- 3.10 En-route charging (charging at motorway service areas (MSAs) or at service stations on A roads and trunk roads) is key to addressing range anxiety. However, we found that en-route charging raises distinct issues compared to other segments of the sector:
- (a) Consumers may have a particularly limited set of options. If their EV runs out of charge during a longer journey, they have no choice but to use an en-route chargepoint during that trip.
  - (b) Consumer lack of choice is compounded by the fact that there can be fewer locations available to place chargepoints on longer journeys.
  - (c) In the locations that are available, it can be prohibitively expensive to install chargepoints. Rapid/ultra-rapid chargepoints minimise waiting time for drivers, but these require large amounts of power and therefore electricity network upgrades. These network upgrades are particularly costly in more

remote locations where en-route chargepoints tend to be located, due to their distance from the existing power network

3.11 We also found that there is currently very limited competition at MSAs, and significantly more chargepoints will need to be installed at MSAs to meet likely future EV charging demand along motorways. We were concerned that there are two major barriers to increasing investment and competition:

- First, the high costs of upgrading the electricity network, resulting from the amount of capacity needed and distant location of many MSAs from the distribution network.
- Second, the Electric Highway (a chargepoint operator) has a share of 80% of chargepoints at MSAs<sup>8</sup> through long-term exclusive arrangements, which may increase barriers to entry at many MSAs and could undermine the effectiveness of the Rapid Charging Fund (RCF).

3.12 The UK government plans to invest £950m in network capacity through the RCF which will significantly help to address the high costs of network upgrades and in doing so, provide a key opportunity to open up competition at MSAs. We recommended that the government rolls out the RCF as quickly as possible and attaches conditions to this funding to enable competition between chargepoint operators within each MSA site – including no exclusivity in future, open tenders and open networks.

3.13 Therefore we support the proposal to have a minimum of two – and where feasible, more than two – different chargepoint operators at any particular site. Our report highlighted that within-site competition is more effective than competition between MSA sites, as it allows customers a direct choice of chargepoint operator that they can easily switch between without having to drive to an alternative site. During our study we received evidence that, absent the exclusive arrangements, within-site competition at MSAs is likely to be both commercially and practically feasible, given the smaller space requirements of chargepoints – a key difference with petrol stations which have a large physical footprint. Several chargepoint operators told us that, in the absence of these exclusive agreements, they would be interested in providing chargepoints at MSAs.

3.14 In line with the concerns raised in the CMA's Market Study report about limited competition at MSAs, in July 2021 the CMA launched a competition

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<sup>8</sup> Excluding Tesla chargepoints which can only be used by Tesla vehicles.

investigation into the Electric Highway's contracts with MOTO, Roadchef and Extra.

- 3.15 On 17 November the CMA set out its concerns that going forward the long-term exclusive arrangements could impede the roll-out of the RCF, limiting its effectiveness in addressing a major barrier to entry and expansion in this sector and therefore to competition. The CMA published legally-binding assurances (known as commitments) offered by Gridserve, which owns the Electric Highway, to address these and other concerns and it is the CMA's provisional view that these commitments will address its competition concerns and open up competition in en-route EV charging. The CMA is now inviting views on the proposed commitments by 2 December. We will continue to work with governments, regulators and industry to open up competition for EV charging.

### **Improving the experience for consumers when charging their EV**

- 3.16 As well as ensuring a comprehensive charging network is rolled-out at pace and at the scale needed, a good experience of using public charging will be important to EV take-up, to build people's trust and confidence in the sector.
- 3.17 The experience of charging is different to filling up a petrol or diesel car but using and paying for charging should be as simple and convenient. People are familiar with using and paying for petrol/diesel and this being a reliable, straightforward experience. Drivers should also simply be able to turn up, charge and pay when out and about and have options to charge easily and cheaply overnight. If charging is confusing or difficult, this will undermine trust and put people off the shift to EVs.
- 3.18 In our Market Study we explored areas also under consideration by the Office for Zero Emission Vehicle in its consultation on the [consumer experience at public chargepoints](#) - which included measures to improve reliability, open up chargepoint data, make it easier to pay for charging and having a standard pricing metric.
- 3.19 We recommended that the UK government takes into account the following principles as part of its ongoing work on the consumer experience of EV charging and following its consultation. It should task a public body with implementing, overseeing and monitoring these as the sector develops, to ensure drivers have a positive charging experience:
- It is easy to find working chargepoints e.g. people can access data on live availability and working status and expect and depend on minimum reliability standards;

- It is simple and quick to pay e.g. no sign-ups needed, contactless bank account payment is widely available, and charging networks keep up with new payment technology;
- The cost of charging is clear and easily comparable e.g. prices are presented in a simple, standardised p/kWh format; and
- Charging is accessible and interoperable e.g. chargepoints can be used by all drivers, are not limited to a single brand of car, and follow inclusive design principles so they are accessible to and usable by as many people as possible.<sup>9</sup>

3.20 Easy to find working chargepoints will require open data on public chargepoints, including live data on chargepoint availability, working status and payment method and the need for minimum reliability standards - particularly for rapid and ultra-rapid chargepoints where there are few alternatives nearby. We also support simple PAYG payment options which don't require people to sign up or share their data, and standardised p/kWh pricing formats across all payment methods so people can easily compare options with price transparency.

3.21 All drivers should have a positive charging experience. We expect that some aspects of the charging experience will improve as the sector evolves, competition develops and more chargepoints are rolled-out. However, in the meantime, a difficult charging experience will put people off EVs. The need for intervention is strongest where chargepoint operators are not fully incentivised to improve all aspects of the charging experience, as the sector is unlikely to resolve such issues itself. As EVs become a mass market, it's also important that some groups aren't unfairly excluded from charging and that all drivers, no matter what brand of EV they drive, can access the full range of charging options. Intervention at this early stage of the sector is therefore needed to help ensure all drivers can access charging in future.

3.22 We therefore support the proposals outlined in the consultation that aim to improve consumers' experience in EV charging.

3.23 We would be happy to discuss the content of this paper, and the findings and recommendations of our EV Charging Market Study in more detail.

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<sup>9</sup> Interoperable networks are one of the conditions of access that we recommended should be attached to the RCF for charging on motorways.