Bright Blue call for written evidence on maturing the market for electric vehicles: Submission from ChargePoint

1. **How important is fully electrifying private transport to achieving net-zero by 2050?**

Electrifying private transport (cars, private hire and taxis) is crucial to achieving the UK's Net Zero 2050 targets. However equally as important as electrifying these categories is the electrification of light commercial vehicles, being vans under 3.5 tonnes. This is why ChargePoint supports the Government's proposal to phase-out new cars and vans that are not fully electric by at least 2035.

Hybrid vehicles should not be considered as electric, and as such should be included the 2035 phase-out target, because anecdotal and initial air quality analysis from cities such as London indicates that they are not being plugged in and driven as electric vehicles.

ChargePoint's business model, like that of many charging providers, is predicated on there being the largest possible number of plug-in vehicles which can use our charging stations. For this reason, there is a commercial rationale to support the continued sale of plug-in hybrid and range-extended electric vehicles.

However, ChargePoint notes the recommendations of the Committee on Climate Change which evidences that stopping the sale of petrol, diesel, hybrid and range-extended cars and vans by 2032 at the latest is required to meet our Net Zero obligations and wider climate change targets.

2. **What are the key demand-side constraints to the uptake of EVs?**

With respect to the vehicles, a key demand-side constraint is the number, specification and quality of available EVs. However, this is rapidly being addressed by automotive manufacturers and the lack of choice is increasingly a matter of public perception, at least for those who are in a position to purchase or lease new vehicles. The supply to the used vehicle market and consumer trust in the reliability of used EVs remains a challenge for the industry.

Public perception of charging infrastructure and the ease of charging an EV is itself a constraint on the uptake of these vehicles. Poor public perception is not helped by a minority of charging networks operating legacy infrastructure which is not fit for today's EV drivers. It is also not helped by many networks not enabling roaming and interoperability between one another, explained further in the answer to 4b.

3. **What are the key supply-side constraints to the uptake of EVs?**

The key supply-side constraint is the lack of available electric vehicles for the UK market. There are a number of factors driving future uncertainty around whether there will be enough EVs in the UK to satisfy the demand driven by a full electrification target.

There is uncertainty in production and import levels relating to Brexit and the global economy. There is global geo-political risk relating to these vehicles' supply chain, with parts based in China and raw materials for batteries originating in conflict zones. The industry is also still recovering from COVID-related production delays which could still return in the coming months.

Another constraint is the lack of chargers and quality of chargers across the UK. But as explained in the answer to question 4b., ChargePoint sees this as a problem which is rooted in public perception and is rapidly in the process of being resolved.

4. What types of policy interventions are required to catalyse the EV market?

For ChargePoint, catalysing the EV market means improving the sticker price and availability of vehicles and ensure there is better infrastructure and better driver perception of the availability and quality of that infrastructure.

The policy interventions need to achieve this requires the Government, from now, to provide a package of consistent incentives, support, and consumer information which demonstrates to consumers which vehicles they should be investing in.

a. Improving the cost and availability of new and second-hand vehicles: ZEV mandate

The Government should establish a ZEV mandate from the beginning of 2021. This would replace the EU car CO2 regulations to guarantee the continuing supply of a range of electric cars into the UK market and facilitate the rapid increase in the supply of EVs, both new and second-hand. The Government should also strengthen targets requiring public owned fleets to shift to zero emission vehicles by 2030.

ChargePoint's experience from being a market leader in California is that a ZEV mandate has been proven to be an effective solution to accelerating the uptake of EVs. The California Air Resources Board (CARB) estimates that by the end of 2020 approximately 60% of new vehicle sales in California will be made up of zero emission or other plug-in vehicles. This compares to just 21.1% for the UK in 2020 this year to date.

b. Charging infrastructure

Prospective EV drivers have a lingering perception of range anxiety and a lack of availability of working, easy to access and easy to locate public charging. However, apart from a minority of operators' legacy infrastructure, today's charging suppliers and operators are supplying a high level of service and are installing in numbers and locations ahead of the vehicle demand curve.

Although the quality of the UK's estate of EV charging infrastructure is improving, in order to drive consumer confidence and uptake of EVs, we believe the Government's should mandate uptime at say least 98% across any charging network – something it has considered but has not set a timetable for. It should impose financial penalties on network operators who do not keep their networks operational. This will not only drive operators towards deploying better quality charging

hardware, but will also ensure they invest in round-the-clock back office support and maintenance services, which will in turn develop skills and jobs in this emerging sector.

Another intervention the government should implement is roaming. The inability for drivers to 'roam' between networks remains a barrier to driver perceptions of charging an EV, and means they have to carry several membership cards or apps. The Government has taken a great step forward in mandating NFC (contactless card) payment on public rapid chargers, which gives drivers a universal means of access. However, without being able to roam between networks, drivers do not have the choice to fully access their account and charging information.

When fleets, company car drivers and commercial vehicles electrify, they will increasingly demand this information and full interoperability between charging networks will need to be realised. Although ChargePoint considers the charging sector to be making sufficient progress on this, the Government could consider making it a condition of operation that charging networks must be able to be accessed by the RFID cards or apps of other charging networks. They may also wish to incentivise through a Government- and industry-endorsed kitemark which guarantees the network is accessible by those of other networks.

5. What are the policy recommendations that would help mature the EV market?

a. Long-term fiscal incentives

Policy consistency is vital for maturing the EV market. At the earliest possible opportunity, the Government should adopt a long-term approach to grants and subsidies – moving from early market incentivisation to a long-term fiscal incentive structure. For example:

Purchase incentive for cars and vans: Given that the EV market is at a nascent stage, it is crucial that vehicle grants stay in place in the short term to provide consumers with the signpost they need from Government to encourage them to switch to cleaner vehicles. The Government should make every effort to continue the Plug-in Car Grant (PICG) and Plug-in Van Grant (PIVG), and make plans for a longer term fiscal or cost-neutral successor scheme for vehicles, such as a bonus-malus scheme or a VAT reduction.

In the meantime, PICG and PIVG should only apply to fully electric vehicles, and funding currently spent in other areas such as charging infrastructure should be re-assigned to ensure the PICG and PIVG can continue. The structure or amount of the grants could be reduced over time but the existence of an incentive at point of purchase is key: it is the main signpost the government has at its disposal to show drivers which vehicles they should buy.

SMMT registration statistics demonstrate this powerful influence on consumer purchase decisions. When the PICG was scrapped for hybrid EVs in 2018, plug-in hybrid sales plummeted 50.4% in June 2019 from 2018 levels. In contrast, while grants were reduced for fully electric vehicles, sales remained more stable.

Taxation: the lowest rate of VED and Company Car Tax benefit-in-kind (BIK) should always be applied only to the vehicles which will not be phased out, and a higher rate applied to those vehicles which are due to be phased out. ChargePoint welcomes HM Treasury's call for evidence on VED.

When it comes to EV charging, the Government should ensure the VAT paid for electricity is the same for drivers whatever the setting. Currently, drivers with the off-street facilities to charge at home pay 5% VAT on the electricity fueling their EVs, but those reliant on the public network pay 20%. All EV drivers, whatever their available charging facilities, should pay the same VAT on their fuel.

ChargePoint does not see that it is necessary to continue the following incentives in a mature EV market. They do not represent value for money and are at risk of distorting the emerging market for innovative EV charging solutions:

EV Homecharge Scheme (EVHS): Since the introduction of EVHS the manufacturing and import costs of home chargers has reduced significantly despite developments in charging technology. In addition, car manufacturers, energy retailers and charging companies have scaled their businesses to offer their own discounts on home chargers, often bundling them with a vehicle or energy tariff. EVHS therefore no longer represents value for money and funding should be re-assigned to PICG and PIVG.

Workplace Charging Scheme (WCS): ChargePoint notes the success of the WCS and particularly supports the recent changes which allow workplaces to receive a grant for up to 40 sockets. However, since its introduction new financing models for workplace charging have emerged which are not WCS-eligible, such as bundled payment plans for hardware, software and installations, hire-purchase financing, and volume discounts from sellers, all of which are offered by ChargePoint in addition to a WCS-eligible sale.

In practice the WCS therefore distorts the market for these innovative commercial models and in the long-term could influence companies like ChargePoint away from developing new consumer offers for chargers. The WCS is therefore no longer a spend which represents value for money and funding should be re-assigned to PICG and PIVG.

b. Public sector involvement in charging infrastructure

A mature EV market is one where the public sector is not involved in the funding, operating and installing of charging infrastructure; this is best done by the private sector.

Funds that pay for the public installation and operation of charging infrastructure such as the On-Street Residential Charging Scheme (ORCS) and the Taxi Infrastructure Fund do not represent value for money for the Government and prevent the private sector from developing competitive business models for public charging.

ORCS has experienced low uptake and the correlation between it and increased EV uptake is unproven. ChargePoint also sees from other local authority-controlled charging networks that it leads to the procurement and operation of chargers that are low-spec and/or behind the technology

curve (as they procure individual items of charging hardware rather than a coherent software-led charging solution) therefore not offering the best driver experience.

ORCS funding should be re-assigned to PICG and PIVG at the earliest opportunity, giving the private sector the opportunity to compete to deploy charging in the locations where they predict the highest number of charging events, creating a sustainable business, rather than locations dictated by the local authority.

Such locations could include privately held car parks, town centre retail and supermarket locations but may not include on-street parking and council-controlled sites. Local authorities would continue to play a vital role in helping to deliver long-term strategies for EV charging and facilitating charging as part of complex multi-partner regeneration projects.

About ChargePoint

Established in the UK for three years, ChargePoint manufactures and develops electric vehicle (EV) charging equipment and software solutions for some of the UK's leading companies and network operators. Our UK business employs 25 people including a team of 17 hardware and software engineers based in Reading.

Globally, ChargePoint is the world's largest provider of EV charging solutions, designing and building the charging hardware and developing the software that ensures a best-in-class driver experience of charging. Globally we have supported over 21 million charging sessions through our networked, smart and rapid charging solutions, saving 113 million litres of fuel and delivering over 525 million petrol-free miles.

With more than 113,400 independently owned charging locations across the world, and thousands of customers including businesses, cities, agencies and service providers, ChargePoint is the only charging technology company on the market that designs, develops and manufactures hardware and software solutions across every EV category.

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