

## Written evidence submitted by Chargepoint (EVP0010)

### INTRODUCTION

ChargePoint is the world's leading provider of electric vehicle (EV) charging solutions. Founded in 2007, ChargePoint is a category creator in EV charging, operating in every segment from commercial to fleet to residential.

We have created one of the world's largest charging networks by selling individual organisations and businesses everything they need to electrify their parking spaces – networked charging hardware, software and associated support services.

ChargePoint serves customers through its software-defined hardware portfolio, comprehensive suite of software solutions and robust network and services designed for a wide range of use cases. ChargePoint's offerings have attracted a growing customer base of more than 4,000 organisations and businesses, building a network of more than 115,000 public and private places to charge worldwide.

In addition, ChargePoint offers access to an additional 133,000 public places to charge through roaming integrations across North America and Europe. Drivers plug into the ChargePoint network approximately every two seconds and have completed over 82 million charging events to date.

ChargePoint designs, engineers and manufactures its own hardware and software solutions from its California headquarters and in offices around the US, India, China, UK and Mexico. In the UK our engineering R&D lab and HQ in Reading is our largest location outside the US and houses 30 engineers specialising in mechanical engineering, power electronics and software, in addition to a growing sales force and network of resellers and installers.

### SUMMARY

It is extremely welcome that the Transport Select Committee is carrying out this important inquiry into zero emission vehicles and road pricing as the UK takes on the challenge of electrifying and decarbonising our transport networks. We are pleased that Government policy has taken significant steps forward with the announcement of the 2030 ICE sales ban in the *Ten Point Plan for a Green Industrial Revolution*, and the accompanying *Energy White Paper*, *National Infrastructure Strategy* and *Net Zero Review*. However a clear roadmap of policies to enable the UK to meet these ambitions is needed, and we eagerly await further details of how this will be delivered in the Transport Decarbonisation Plan which has been pushed back to the Spring.

In order to ensure the Government meets its 2030 and net zero targets, ChargePoint believe a number of complementary measures must be brought forward to facilitate the rapid shift to zero emission vehicles (ZEVs):

- The Government must continue to **support and incentivise the consumer to purchase new EVs and look to develop a more sustainable longer-term solution** to replace the existing Plug in Vehicle Grants, such as tax break for ZEVs or other fiscal incentives.

- In addition to the 2030 target, the **Government should put in place ZEV mandates** to encourage and give confidence to car manufacturers to invest in manufacturing ZEVs for sale in the UK.
- The Government should **legislate to mandate interoperability between all charging networks**. Enabling drivers to fully roam between networks – using any app of choice to unlock any station and see the relevant charging and payment information in that app – will significantly boost consumer confidence in the charging network and will encourage drivers to switch to EVs.
- **EV charging locations should be regarded as part of the UK’s Critical National Infrastructure**, and should receive appropriate Government-enabled commercial support, not just subsidy, to grow at the required rate to support the EV market.
- The Government should develop a **smart road pricing scheme which financially incentivises drivers to drive more electric miles** and drive fewer petrol/diesel miles.
- Further **tax levers such as VED should only incentivise vehicles that will not be phased out in 2030**. EVs must continue to pay the lowest VED rates and the most polluting vehicles always pay more.

*Tanya Sinclair, ChargePoint’s Director of Policy UK, Ireland and Nordics, and Chair of the Renewable Energy Association’s (REA) EV Group would welcome the opportunity to give oral evidence to the Committee in its inquiry on behalf of the charging sector.*

## **ACCELERATING THE SHIFT TO ZEVs**

- *The feasibility, opportunities, and challenges presented by the acceleration of the ban of the sale of new petrol and diesel vehicles to 2030;*
- *The actions required by Government and private operators to encourage greater uptake of electric vehicles and the infrastructure required to support them;*

### **1. Feasibility, opportunities, and challenges**

- 1.1. ChargePoint welcomes the Government’s ambitious commitments to decarbonising our economy and electrifying the UK’s transport networks, and the long-term package of measures that support drivers and businesses to electrify their transport choices.
- 1.2. In relation to the charging sector, the Government already has created a market where charging companies want to invest and scale. ChargePoint’s experience is that the sector is already an attractive market for growing investment and is not in need of intervention or future incentives to facilitate future growth or competition.
- 1.3. While the UK’s 2030 ICE sales ban and 2050 net zero targets are well within reach, this will not be achieved without strong action from Government now to drive growth and investment in the UK’s EV and charging markets, and to provide the right signals and support for the consumer that are crucial to accelerate the transition to ZEVs.

### **2. Consumer purchase incentives**

- 2.1. An EV may be the highest cost capital expenditure an individual consumer makes in the transition to net zero. In order to achieve net zero by 2050 and to end the sale of new petrol and diesel vehicles by 2030, **it is vital the Government provides a long-term package of consistent incentives and support which demonstrates to consumers which vehicles they should be investing in.**
- 2.2. There is no EV charging sector unless there are the vehicles to drive demand for charging services. So rather than focusing on the charging market itself, policy-makers should design policies to guarantee the manufacture, import and sale of EVs which will in turn drive demand for charging services.
- 2.3. It was welcome that in the Spending Review the Government committed to fund the Plug-in Vehicle Grants (PIVG) until 2022-23, as the main signpost the Government has at its disposal to show drivers which vehicles they should buy. **In terms of financing new EV incentives, the Government must now consider longer term approaches which are more sustainable than the existing grants at point of purchase.**
  - 2.3.1. One funding option which is more sustainable in the long-term is a bonus-malus or ‘polluter pays’ grant scheme, where surcharges on polluting vehicles offset the incentives on the least polluting ones. This system, in operation in France and Sweden, enables a near-cost-neutral incentivisation of low emission vehicles, which is more sustainable in the long-term than funding a purchase incentive.
  - 2.3.2. Another long-term support mechanism to propel us towards 2030 and Net Zero is moving away from cash grants to fiscal incentives. For example, replacing the PIVGs with a 0% or reduced VAT rate on new EVs. This could also be extended to other major purchases in the EV ecosystem such as charging infrastructure and the electricity used when charging EVs (see paragraph 10.2).
- 2.4. The transition to ZEVs will also require individuals to invest in charging equipment, but the personal investment will be significantly less than acquiring a new EV. Charging equipment is largely procured by businesses and local authorities, and home charging is increasingly offered for free with the purchase of a new vehicle or an energy tariff. In today’s market, charging providers like ChargePoint are increasingly able to offer competitive and innovative means of financing or leasing charging infrastructure. Therefore, the taxpayer should not need to subsidise the purchase of charging infrastructure as it does now with the EV Homecharge Scheme, the Workplace Charging Scheme and the On-Street Residential Charging Scheme.

### 3. ZEV mandates

- 3.1. Another approach the Government should take is to further place the onus to reduce vehicle emissions on vehicle manufacturers. The 2030 sales ban is a step in the right direction, but leaves a 9-year period for manufacturers to scale up their EV production, import and sales targets as they see fit.
- 3.2. **We believe the Government should introduce a Zero Emissions Vehicle (ZEV) mandate to guarantee EV uptake – essentially a baseline or interim minimum target for manufactures to produce, import or sell new electric vehicles in the UK (e.g. up to 100% in 2030).**

- 3.3. To ensure that the UK is keeping on track towards its 2030 target, a ZEV mandate could also work as a form of emissions pricing, by imposing financial penalties on vehicle manufacturers who do not meet the baseline EV sales target. We have seen the success of such mandates in other markets where we operate in Canada and California in the US, and this was recently explored by Policy Exchange in their [Route '35 report](#).

#### **4. Improving consumer charging experience**

- 4.1. Leadership by Government and action by charging operators is needed to improve the consumer charging experience. **The Government should bring forward regulation or legislation on the charging sector to mandate that charging networks are required to be interoperable with one another.**
- 4.2. Network roaming is the technological process by which different charging networks become interoperable with one another allowing drivers to use any charging station with any means of access (e.g. subscription with another operator). However, the sector's experience over the last three years has been that cooperation is only taking place between charging market players who want to cooperate. There are several actors who choose not to engage in this to resolve this market failure and as a result no effective progress can be made.
- 4.3. Issues around charging – whether they be real or perceived problems of range anxiety, ease of access to chargers or standardised plugs – are still holding back the rapid acceleration of uptake of EVs. Improving the driver experience of charging, providing assurance of interoperability, and therefore increasing confidence in the usability of the charging network, will help set the UK on the path to achieving 2030.

#### **5. Funding charging infrastructure**

- 5.1. ChargePoint welcomes the £950m committed in the *Ten-Point Plan for a Green Revolution* to support the rollout of an EV fast-charging network, and the additional £90 million to fund local EV charging hubs. Delivering a rapid charging network across the UK will be crucial to encourage consumer EV uptake to meet 2030, and to a maturing the EV charging sector. However, £950m is not sufficient to make the necessary improvements across the whole country.
- 5.2. When drivers are required to adopt electric cars, vans, buses and taxis from 2030, these vehicles will require significantly more power and capacity to locations where people need to charge their vehicles during longer journeys. Before 2030, drivers need to see this infrastructure being installed to give them confidence to buy EV.
- 5.3. HM Treasury should allocate additional spending to extend rapid charging funds beyond Motorway Service Areas and the Strategic Road Network to other distribution network bottlenecks. It should also continue to fund the upgrades to grid capacity and the Strategic Road Network required for EV charging infrastructure operators to be able to roll out rapid charging hubs across the UK.
- 5.4. **ChargePoint believes that charging infrastructure should be regarded as part of our critical national infrastructure and should receive appropriate Government-**

**enabled commercial support, not just subsidy, to grow at the required rate to support the EV market.** The Government should take a similar commercial funding model approach to other relevant areas of under-invested national infrastructure and critical national infrastructure, such as the high voltage grid, smart energy systems and renewable power generation. Doing so would ensure the UK remains an international leader in its approach to decarbonisation across the whole economy.

- *The particular challenges around decarbonising buses and how these should be addressed;*

## **6. Bus electrification**

6.1. ChargePoint develops charging solutions for electric buses and coaches and deploys them across Europe and North America. In Europe our experience is that the key challenge for the bus sector is the retrofitting of real estate – decades-old bus depots for example – with the grid connections and necessary charging infrastructure to facilitate electrification.

6.2. While power can be upgraded and brought to site, the most difficult challenge to overcome is space. In older bus depots, significant technological investment is needed to position charging cables and rapid charging units in such a way that they do not interfere with the movement of vehicles, and can be operated safely.

## **ROAD PRICING**

- *The case for introducing some form of road pricing and the economic, fiscal, environmental and social impacts of doing so;*

## **7. The case for road pricing**

7.1. At ChargePoint we recognise that as the shift to EVs accelerates, HM Treasury will need to plug the gap to the Exchequer from declining fuel duty revenue, and road pricing may be an important part of the equation.

7.2. As mentioned in paragraph 2.3, while we support the existing vehicle grants as an appropriate scheme in the early market to encourage consumers to switch to cleaner vehicles, as demand grows, the Government must look to a more sustainable longer-term solution to continue to support and incentivise the consumer to purchase new EVs.

**7.3. We believe that road pricing can be a useful such lever – however it is essential that the cleanest vehicles must always pay the least.**

- *Which particular road pricing or pay-as-you-drive schemes would be most appropriate for the UK context and the practicalities of implementing such schemes;*

## **8. Smart road user charging**

8.1. In the case of road transport it is relatively easy to calculate the reduction in vehicle emissions by monitoring registrations of new battery EVs, whose emissions are zero. This calculation can be more detailed with the introduction of road user charging. This

would not only allow the Government to measure the growing number of electric miles driven as a proportion of all miles driven, but would allow the Government to financially incentivise drivers to drive more electric miles and drive fewer petrol/diesel miles. A practical example would be a two-car family with one petrol and one electric car choosing to use their electric car more because it is incentivised through road user charging.

## 9. VED

- 9.1. Another type of tax the Government can use as a lever to accelerate the transition to 2030 and net zero is VED. **HM Treasury should commit that EVs will continue to pay the lowest VED rates and the most polluting vehicles always pay more.** Under its new VED plans, HM Treasury should maintain a separate distinct band for 0g/km vehicles (battery electric vehicles), which continue to attract zero or the lowest possible VED rate for as long as reasonably possible. To reach net zero, VED should only incentivise those vehicles that will not be phased out in 2030.
- 9.2. ChargePoint supports the majority of alternative VED structures set out by HM Treasury in its 2020 Call for Evidence. In particular, a bonus-malus VED structure like that adopted in France could be a strong influence on consumer choice.
- 9.3. This will make it more attractive to buy a new EV over a conventionally fuelled vehicle and send a strong signal to individuals and businesses about which cars to buy by rewarding those who purchase ZEVs and ensure the greater share of the tax burden falls on those who purchase the most polluting cars.

## 10. Other indirect taxes

- 10.1. Company car tax (CCT) is an excellent example of effectively using tax as a lever to reduce emissions. It has historically been very effective and with more than 50% of vehicle registrations being company cars and new EVs supplying the second-hand market, the benefit of CCT goes beyond the company car driver and the leasing company. ChargePoint notes that EVs have not always been the lowest CCT in their own lowest band, and there is no commitment from Government to maintaining a separate 0g/km band which will always have the lowest CCT.
- 10.2. VAT is another emissions pricing lever in taxation that UK Government has at its disposal. A long-term fiscal incentive such as 0% VAT, or a cost-neutral bonus-malus scheme would be as effective an incentive for drivers to buy EVs while also being sustainable for the mainstream market. Norway has long used import taxes and VAT (among other taxes) as a lever to disincentivise the purchase of petrol and diesel vehicles. Unlike the UK, it has not offered direct purchase grants. It now has the largest penetration of EVs in the world and 67% of new vehicle registrations are electric.