

## Written evidence submitted by Policy Exchange (EVP0016)

### Introduction:

- We are writing to you in response to the Transport Select Committee's inquiry into zero emission vehicles and road pricing.
- Policy Exchange is an independent, non-partisan educational charity seeking free market and localist solutions to public policy questions. Charity Registration Number: 1096300.
- We have responded to the Committee's questions on accelerating the shift to zero emission vehicles.
- Our submission draws on two of our recent reports:
  - **Route '35 (July 2020)**, which explores how a California-style zero-emission vehicle mandate ('ZEV mandate') can deliver the phase-out of petrol and diesel cars and vans. <https://policyexchange.org.uk/publication/route-35/>
  - **Charging Up (February 2021)**, which proposes policies to deliver a comprehensive network of public chargepoints for electric vehicles across the whole of the UK. <https://policyexchange.org.uk/publication/charging-up/>

### **The feasibility, opportunities, and challenges presented by the acceleration of the ban of the sale of new petrol and diesel vehicles to 2030:**

1. To deliver the petrol and diesel ban, the Government needs to ensure that:
  - a. There is sufficient supply of electric vehicles (EVs) and other zero-emission vehicles (ZEVs) for sale in the UK at a reasonable cost.
  - b. There are enough public chargepoints to make EVs a practical choice for drivers across the whole of the UK, including those without access to home charging / off-street parking.
2. In addition, the Government will ensure that the UK's car manufacturing sector remains strong and may need to consider specific interventions to support manufacturers to make more ZEVs.

### **The actions required by Government and private operators to encourage greater uptake of electric vehicles and the infrastructure required to support them:**

3. **To increase the supply of EVs and other ZEVs:**
4. Policy Exchange recommends a California-style zero-emission vehicle mandate ('ZEV mandate'). Our assessment is that a ZEV mandate will be more cost-effective than current policies (purchase subsidies and favourable tax treatment for EVs). Our recent report, *Route '35*, makes detailed recommendations for the design of a UK ZEV mandate.<sup>1</sup>
  - a. A ZEV mandate encourages the emergence of specialist ZEV manufacturers, who can sell credits to others. For example, in California, Tesla sells ZEV credits to other manufacturers.

- b. Under a ZEV mandate, each zero-emission vehicle generates a set number of ZEV credits, based on vehicle range.
  - c. Manufacturers would be required to sell an increasing proportion of ZEVs each year, or to buy ‘ZEV credits’ from those who do.
  - d. The requirement would start at a low level, reaching close to 100% by 2030 in line with the Government’s target to phase out the sale of new petrol and diesel cars and vans.
  - e. Our report makes ten recommendations for the detailed design of a UK ZEV mandate, including trading rules and a price cap on ZEV credits to control costs.
  - f. A ZEV mandate should be supported by complementary policies, including:
    - i. Government support for electric vehicle chargepoints;
    - ii. Strengthened fleet-average CO<sub>2</sub> targets; and
    - iii. Clean Air Zones.
  - g. Once a ZEV mandate is in place, some existing policies should be removed because they are less cost-effective; these policies include:
    - i. Purchase subsidies like the Plug-in Car Grant; and
    - ii. Favourable tax treatment for ZEVs, including for those used as company cars.
5. The alternative to a ZEV mandate is a suite of Norway-style incentives for EV owners, including tax breaks and special privileges including free or reduced parking fees and access to bus lanes. Our judgement is that these policies, whilst successful, are unnecessarily expensive. Post-coronavirus, the Government must redouble its efforts to ensure a cost-effective transition to Net Zero.
6. The Government’s upcoming Green Paper on “the UK’s post-EU emissions regulations” is the perfect opportunity to implement a ZEV mandate and other complementary policies.<sup>2</sup>
7. Our full report and a short summary are available on our website at:  
<https://policyexchange.org.uk/publication/route-35/>
8. **To deliver a comprehensive network of public chargepoints for electric vehicles:**
9. Policy Exchange recommends that the Government implements competitive tenders for chargepoints, focusing on areas that are underserved. Our recent paper, *Charging Up*, set out in detail how such a scheme would work.<sup>3</sup>
- a. By 2030, the UK is likely to need around 400,000 public EV chargepoints, compared to around 35,000 today. This means that, during the 2020s, public EV chargepoints need to be installed five times faster than the current rate (35,000 per year vs. 7,000 per year).
  - b. We found five barriers to a comprehensive network that justify Government intervention:
    - i. Risk of underprovision in some areas, particularly rural areas;
    - ii. Lack of resources in Local Authorities to help with the rollout of chargepoints;
    - iii. Need for high-powered ‘strategic grid connections’ in some key areas, e.g. Motorway Service Areas;
    - iv. Interoperability and reliability of chargepoint networks; and

- v. Risk of local monopolies and excessive pricing in some locations.
  - c. At every stage, Ministers should aim to make driving an EV as affordable and as convenient for all. To achieve this, the Government should:
    - i. Encourage innovative solutions to reduce costs;
    - ii. Leverage competition between chargepoint owners;
    - iii. Protect drivers from excessively high prices;
    - iv. Give drivers the confidence to drive anywhere in the UK in an EV; and
    - v. Wherever possible, make the EV charging experience better than refuelling a petrol or diesel vehicle.
  - d. Our report makes five policy recommendations:
    - i. In areas that are underserved, the Government should procure chargepoints through competitive tenders;
    - ii. Fund dedicated ‘Chargepoint Teams’ in Local Authorities to facilitate the rollout of chargepoints in their area. This funding should last for four years to kickstart the deployment of chargepoints in residential areas;
    - iii. At key locations, the Government should tender for high-powered chargepoints and associated ‘strategic grid connections’;
    - iv. Where chargepoints receive public support, the Government should regulate the maximum price charged; and
    - v. Where chargepoints receive public support, operators should be required to make their chargepoints easy to use (interoperable) and reliable.
10. These recommendations draw on the Government’s successful market-led policies for low-carbon energy projects, specifically the Contracts for Difference (CfD) scheme that supports renewables like offshore wind. By offering long-term contracts to chargepoint operators, the Government can reduce the cost of financing chargepoints, as evidenced by the UK’s offshore wind sector.
11. Over time, the Government would increasingly focus the tenders only on areas that remain underserved, which will shrink over time. This offers the Government a pathway to comprehensive provision of chargepoints without a major long-term role for the Government, similarly to the market for petrol stations.
12. We considered alternative policy options, including:
- a. Expanding the Government’s existing programme of grants;
  - b. Expanding the UK’s Renewable Transport Fuel Obligation (RTFO) to include EV charging, similar to California’s Low-Carbon Fuel Standard; and
  - c. A “chargepoint mandate” or other regulations.
13. Each of these alternatives has its advantages; however, we believe that competitive tenders and long-term contracts offer the best, balanced approach to the deployment of EV chargepoints.
14. Our full report, *Charging Up*, and a short summary are available on our website at: <https://policyexchange.org.uk/publication/charging-up/>

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

15. N/A

**The Government's ambition to phase out the sale of new diesel heavy goods vehicles, including the scope to use hydrogen as an alternative fuel.**

16. We note that the U.S. State of California is expected to introduce a Zero-Emission Vehicle mandate ('ZEV mandate') from 2024 that would cover Heavy Goods Vehicles.<sup>4</sup> The mandate was proposed by the California Air Resources Board (CARB). Electric and hydrogen trucks are expected to qualify for the mandate, alongside other technologies with zero exhaust emissions.
17. Similar to Policy Exchange's recommendation for a ZEV mandate for cars and vans, we encourage the Government to consider a stand-alone ZEV mandate for heavy goods vehicles.

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**Endnotes**

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<sup>1</sup> Policy Exchange (July 2020). *Route '35*. [Link](#)

<sup>2</sup> BEIS, 10 Downing Street (November 2020). *The ten point plan for a green industrial revolution*. [Link](#). Page 19

<sup>3</sup> Policy Exchange (February 2021). *Charging Up*. [Link](#)

<sup>4</sup> Reuters (June 2020). *California passes landmark mandate for zero-emission trucks*. [Link](#)