

# Together in electric dreams? Addressing the challenges of rolling out electric vehicles and charging infrastructure efficiently and fairly

TWO PAGE SUMMARY

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**This research discusses the challenges of rolling out electric vehicles and charging infrastructure efficiently and fairly, including public attitudes to a mandated ban on the sale of petrol-diesel cars, barriers to uptake, and distributional issues.**

## KEY POINTS

- **Support for a petrol-diesel vehicle ban is far from won** - SMF/Opinium polling finds support or reluctant acceptance for the ban was notably higher among those from higher socio-economic grades (ABC1) at 57%, compared to their more disadvantaged peers (C2DE) at 43%.
- **Housing tenure risks becoming a dividing line in the EV transition** - weak incentives for landlords to support the deployment of charging infrastructure and reliance on “patchy” public chargepoints risks creating a homeowner-renter divide.
- **Geographical disparities in rollout of charging infrastructure** - the market alone is unlikely to deliver sufficient EV chargepoints to provide equitable access for all across the UK. The Government should learn lessons from the uneven rollout of broadband and support local authorities and local network operators to deliver charging infrastructure where market incentives are insufficient.
- **Without well-targeted intervention and investment, unequal access to the EV market could create winners and losers, locking many people and places out of the Net Zero transition.** Where distributional issues associated with EV rollout intersects with existing inequalities, government risks a political backlash against the Net Zero agenda.

## Context

While there is currently broad support for the principle of reducing carbon use, public understanding of the practical impacts of reaching Net Zero emissions by 2050 is limited and the public are not aware of or prepared for the changes to the way they live, drive, eat, and heat their home.

This is particularly true for decarbonising the surface transport sector, which is now the highest-emitting sector in the UK economy.

While the electric vehicle (EV) market has seen significant growth over the last decade, the market is still young and small, with current market share at around just 1% of all vehicles on the road and 11% of new vehicle registrations. The urgency of this challenge has been further accelerated by the Prime Minister’s announcement, in November 2020, that the ban on the sale of new petrol and diesel cars and vans will be brought forward from 2040 to 2030.

This means the near 400,000 plug-in EVs currently on the road will need to rise to around 9 million before the end of the decade. Market forces alone are unlikely to achieve this while also meeting the needs of all drivers in a way that is seen to be fair and thus politically sustainable.

The success of this policy and the broader Net Zero agenda will therefore depend on the ability of government to incentivise individuals – regardless of socio-economic grade - in the early years and provide targeted support for charging infrastructure, where the market will not deliver, to encourage widespread adoption of EVs during the 2020s.

## Public opinion

As part of this research, the SMF commissioned Opinium to assess people’s attitudes and understanding of Net Zero, including specific consumer issues such as EVs.

Findings include:

- Support or reluctant acceptance for the prohibition on sales of new petrol-diesel vehicles was notably higher among those from higher socio-economic grades (ABC1) at 57%, compared to their more disadvantaged peers (C2DE) at 43%.
- Expense and charging access are the most significant barriers to EV uptake. Over half (56%) of respondents indicated that expense prevents them from switching to an EV.
- Over a third of renters (35%) reported it was not possible to install a chargepoint near their home, compared to half as many (17%) homeowners
- Nearly half of C2DE respondents say they would oppose paying more for charging infrastructure costs (47%) and grid expansion costs (44%). In comparison, ABC1 respondents are more open to paying: opposition to these measures stands at about a third (35% and 32% respectively)

Charging access for all

The policy agenda for electric vehicles, and decarbonising private transport more broadly, is unlikely to be successful without sufficient and fair access to charging for all. Charging infrastructure is not only critical for meeting the needs of existing EV drivers’ but also addressing the concerns of potential future EV owners and encouraging uptake.

Homeowners vs. renters

Those who are unable to install their own chargepoint at home (off-street) will often rely on public charging infrastructure or destination chargepoints (e.g. at work or at supermarkets).

However, in these locations, where there is less of a business case for a commercial return, the market is unlikely to provide public chargepoints. This is likely to be most apparent where installing and running chargepoints is complex and/or costly, impacting urban areas and/or high occupancy buildings), renters, or people in rural areas where charging and associated network capacity might require significant investment.

A lack of agency for renters and weak incentives for landlords mean uptake of EVs may slow and inequalities between wealthier homeowners and renters on low incomes could be exacerbated.

Rural vs. urban

The Government has described the UK’s provision of public charging infrastructure as “patchy” in 2018, noting wide variances between different local authorities. ‘Metropolitan areas’ are currently closer to meeting their 2030 public charging needs than ‘non-metropolitan areas’ (see map), in part due to the business case for investing in urban areas. Learning lessons from the UK’s broadband rollout experience, the Government must ensure rural areas are not left behind in the EV transition.

Equally, challenges of delivering fair and efficient charging infrastructure also exist within urban areas. For example, where drivers do not have access to off-street parking for EV charging, and demand for on-street parking is high (e.g. high occupancy buildings), it is likely consumers will face greater inconvenience and higher costs associated with charging.

Recommendations

**Without well-targeted government intervention and investment, unequal access to charging could create winners and losers, locking many people and places out of the EV market.**

If ‘loser’ status intersects with existing inequalities and economic disadvantage, transitioning to EVs could bring about significant social divisions between those who can purchase an EV and access charging, and those who cannot. Couple this with not being able to buy a new petrol-diesel car from 2030 and some drivers will likely be forced to stay in their older, more expensive to run and more polluting cars for longer, which could exacerbate existing economic, social and health inequalities as well as issues of mobility and social exclusion. This report recommends:

- ✔ Support for consumers who cannot afford to switch to an EV by **scrapping VAT on EVs** and consulting on extending subsidies **for low-income groups until, at most, 2030.**
- ✔ A **strategic and coordinated delivery plan between national, regional and local actors** to promote public charging infrastructure in communities across the country.
- ✔ **Allocating charging infrastructure and grid reinforcement costs fairly and clearly through general taxation and the Regulated Asset Base (RAB) model.**