Briefing

The case for an ambitious zero emission vehicle mandate

January 2023

Context

The UK has an opportunity to set itself centre stage in the global race for electric vehicles (EVs), but any delays to government legislation threatens the UK's ability to rapidly transition to EVs which, alongside the collapse of Britishvolt, has led to wider uncertainty about the stability of the UK car industry.

Meanwhile, an EV revolution is happening across the world. China is a global leader in both sales and manufacturing; the United States' landmark Inflation Reduction Act (IRA) is already turning the heads of EV manufacturers; Europe boasts a growing EV market, including an impressive 79 per cent of 2022 new car sales in Norway, and recent announcements suggest the EU is looking to develop its industrial strategy in response to the US IRA.

The government's *Net zero review*, commissioned by the government, highlights the swift delivery of a zero emission vehicle mandate (ZEV mandate) by 2024 as one of its headline recommendations for reducing emissions. To capitalise on the benefits of the net zero transition, the government must ensure it introduces relevant legislation with adequate time for a January 2024 introduction of the mandate.

Summary

In 2019, the transport sector contributed almost a third of the UK's domestic carbon emissions, with cars and vans alone accounting for 19 per cent of UK emissions. If the UK is to reach net zero and prepare the market for the 2030 internal combustion engine (ICE) phaseout, which the government committed to in 2020, then ambitious policy to increase EV supply is needed swiftly.

To support this transition, the government has pledged to implement a ZEV mandate, setting yearly targets for manufacturers on the proportion of new vehicles which need to be zero emission. The proposed mandate will set a trajectory from its planned introduction in 2024 until 2035, when 100 per cent of new vehicle sales will need to be zero emission.

It is crucial to cut emissions, while sending a clear signal to UK manufacturing and international markets, that the government should set ambitious targets in line with the Climate Change Committee's (CCC's) balanced net zero pathway and strictly limit any flexibilities which undermine this trajectory.

Why we need a ZEV mandate

As the single biggest contributor to UK carbon emissions, road transport must be a priority on the journey to a net zero economy.

The ZEV mandate is widely agreed to be the best practice for scaling up EV markets by providing certainty to manufacturers, consumers and supply chains. Similar regulations have been, or are being, introduced around the world including in California, Canada and China.

By securing increased supply of EVs to the UK, the ZEV mandate will, in turn, support an expanded second hand market. This will allow those on lower incomes to benefit from cheaper to run vehicles.

If the UK car market is to survive and flourish in years to come, sending a signal that there will be a significant domestic market for clean vehicles will be crucial for future investment and jobs.

More ambitious targets

For the UK to reach its climate targets, the CCC estimates that EVs must make up nearly half of car sales by 2025 and nearly all sales by 2030. For vans, it recommends a rapid increase up to 56 per cent of new sales in 2025 and 100 per cent by 2030.

However, the targets currently proposed by the Department for Transport (DFT) do not meet the CCC's recommendations or sufficiently drive the growth of the EV market, at a time when Office for Budgetary Responsibility (OBR) forecasts predict higher sales. Recent sales data indicates that the new EV market is moving at pace. In 2022, almost 17 per cent of cars and six per cent of vans were wholly electric, just five and two percentage points respectively off government targets for 2024.

Without raising these targets, the ZEV mandate could act as a ceiling on market ambition instead of a driver.

Limited flexibilities

A key factor determining the success of a ZEV mandate is the extent to which flexibilities are incorporated into the legislation. These flexibilities may be included to support car manufacturers who, particularly in the early years, struggle to reach targets.

Any regulation created using Climate Change Act (2008) powers must include a tradable element. As part of the ZEV mandate, sales will be converted into certificates which can then be traded between manufacturers. This will allow those missing targets to purchase ZEV certificates from over achievers to avoid fines.

Additional flexibilities some car industry voices are pushing to include:

Banking: manufacturers can 'bank' the certificates above a year's target figures for use in future.

Borrowing: manufacturers can 'borrow' certificates from projected future above target sales.

The tradable element of the ZEV mandate legislation should provide suitable flexibility for any manufacturer to adhere to the ZEV mandate. Similar regulations have been in place across the EU and manufacturers should have planned effectively for the need to roll out EVs during the 2020s.

If additional flexibilities such as these are included in the ZEV mandate, they must be:

1. **Time limited**: banked certificates should be used within one year to avoid manufacturers storing up certificates in the early years to help them reach more difficult targets later on. Any borrowing scheme should be limited to the first three years of the regulation. Borrowing effectively lowers the headline targets, reducing emissions savings. Based on production cycles, all participants should be able to produce suitable zero emission models by 2027.
2. **Include an interest rate**: as flexibilities undermine the emissions savings across the ZEV mandate, an interest rate on certificates should be introduced. Any underperformance against targets must be balanced by future overperformance to speed up the rollout of EVs.
3. **A limited level of borrowing**: as the introduction of similar CO_2 performance standards in the EU (which also apply in the UK) have shown, manufacturers will largely 'sell to target'. Including an unlimited level of borrowing for the duration of any borrowing scheme will not provide the necessary incentive to push forward cleaner vehicles in the short term. The government should only allow for a small proportion of borrowing, below the headline ZEV mandate sales figure.
4. **To be coupled with more ambitious targets**: to make up for the additional emissions as a result of any flexibility, overall targets should be increased to make no net impact on emissions levels.

Recommendations

We recommend DfT grows the EV market by introducing an ambitious ZEV mandate, informed by the CCC's Balanced Net Zero Pathway, it should:

- **Ensure swift delivery** of the ZEV mandate for a 2024 start date.
- **For cars**, it should target a third of sales in 2024, rising to two thirds by 2027 and almost 100 per cent in 2030.
- **For vans**, to account for the current state of the electric van market, it should start lower at 20 per cent in 2024 but rise rapidly up to CCC recommended levels of 71 per cent in 2027 and 100 per cent in 2030.

This 2024 target is 12 per cent higher than the figure proposed by DfT during its second consultation but reflects an ambitious, yet realistic, picture of where the van market may be in 2024.

- **Limit flexibilities** within the regulation. Trading certificates should provide the necessary flexibility for manufacturers to comply with the ZEV mandate. If banking and borrowing are included in the regulation, then they should meet the tests set out in this briefing to limit the extent to which they undermine emissions savings.

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