BRIEFING - January 2025

Mission Accomplished: Carmakers fulfill the 2024 ZEV Mandate

Summary

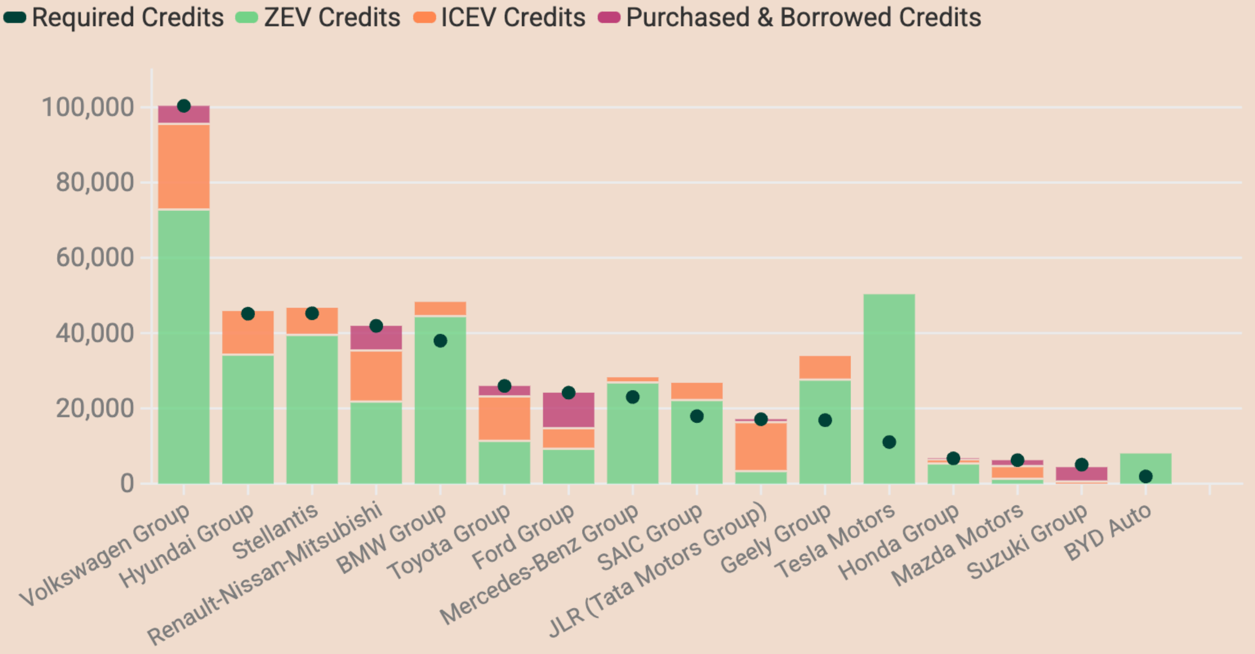
T&E analysis shows that the automotive industry met the 2024 UK Zero Emission Vehicle mandate

The UK ZEV mandate has successfully accelerated EV (battery electric) sales in 2024. Following two years of stagnating EV sales at around 16.5%, the first year of the ZEV mandate has propelled EV sales to a record breaking one-fifth of the market. This surge has positioned the UK as a leader ahead of other major European car markets, where stagnating EU regulation until 2025 has temporarily dampened growth in EV sales.

Despite initial claims from carmakers last year about potential difficulties in meeting the 2024 ZEV mandate, T&E's analysis of 2024 sales data confirms that the automotive industry has successfully complied. UK EV sales reached 19.6% in 2024. Although below the headline target of 22%, this figure exceeds the 18% required for compliance when accounting for flexibilities lobbied in by the car industry[1].

Automotive Industry complies with 2024 UK ZEV mandate

T&E analysis of 2024 UK EV sales data show no carmakers are expected to pay fines in 2024, Suzuki is the only carmaker that will need to buy credits



Source: T&E calculations based on Dataforce 2024 & 2021 • Geely Group includes Volvo, Polestar & Lotus

[1] Guardian. (2024, 01,03) Big carmakers lobbied UK to weaken or delay electric car rules.

At the individual manufacturer level, the analysis shows that all major carmakers have met the 2024 targets and Suzuki is the only carmaker which will need to purchase credits to comply due to no fully electric sales in the UK in 2024.

The regulation's flexibilities have provided multiple pathways for compliance. Carmakers, except for purely electric manufacturers, have utilized a combination of strategies to meet the mandate and EVs sales have done the bulk of the heavy-lifting. For 2024 compliance Hyundai, Stellantis, BMW, Mercedes-Benz, SAIC, and Geely (Volvo, Lotus, Polestar) achieved compliance by both increasing EV sales and supplementing this with a reduction in the average emissions of their internal combustion engine (ICE) fleet.

VW, Renault-Nissan-Mitsubishi, Toyota, Ford, Tata Motors, Honda, Mazda, and Suzuki will supplement EV sales and emissions reductions by either borrowing credits from future years or purchasing them from overcompliant manufacturers. Suzuki is the only manufacturer that will not be able to borrow enough credits due to too low fully electric sales -Suzuki sold no fully electric cars in the UK last year- and will have to buy credits. Overall, there is an excess of 61,000 credits available for purchase, almost double the 30,000 credits required by carmakers who need additional credits to comply. Besides purely electric carmaker Tesla, overcompliant manufacturers such as BYD, BMW, Mercedes-Benz, SAIC, and Geely (Volvo, Polestar and Lotus) have surplus credits available for sale.

Last year was a great success for the UK EV market, demonstrating that the ZEV mandate is functioning as intended and indicating that robust regulations are crucial for accelerating EV sales. The UK has a higher EV sales share than any of the other biggest European car markets (France, Italy, Germany and Spain), highlighting strong and sustained consumer demand for EVs. Carmakers have also lowered prices and introduced more affordable models, such as the Citroen e-C3. This has happened as total car sales increased 2.6% year on year indicating that carmakers did not hold back on ICE sales to meet the mandate and that increasing EV sales go hand in hand with a growing car market[2].

Yet at the end of last month, the government launched a consultation on the ZEV mandate including questions on flexibilities which would weaken the stringency of the ZEV mandate. It is crucial that the government maintains the mandate's ambition both for consumers and the future of the automotive industry. As the ZEV mandate increases in ambition over the coming years, carmakers plan to introduce over a dozen EV models cheaper than £23,000, improving overall EV affordability for drivers and further boosting demand for EVs. Yet if the ZEV mandate is weakened volumes will be prioritised for other markets and UK consumers will miss out.

[2] SMMT. (2025, 01, 06) December 2024 new car registrations.

It is also crucial for securing the £23 billion in EV investments committed to the UK between 2020 and 2023 as any weakening now will damage investment certainty and the UK's credibility as an investment destination for clean tech. These investments are vital for driving economic growth and safeguarding high-quality UK automotive jobs. Any backtracking on the UK's EV ambitions could also jeopardize the £6 billion investment pledged by the charging industry by 2030 for infrastructure roll-out.

Rather than weakening the ZEV mandate, the government should focus on:

1. **Developing a robust automotive industrial strategy** to maximize the economic benefits of the EV transition and enhance global competitiveness.
2. **Support the growth of the affordable EV market** by tackling barriers to EV adoption such as high charging costs and focusing any potential financial support for the industry at small, affordable EV models and increasing taxes on the most polluting new cars.

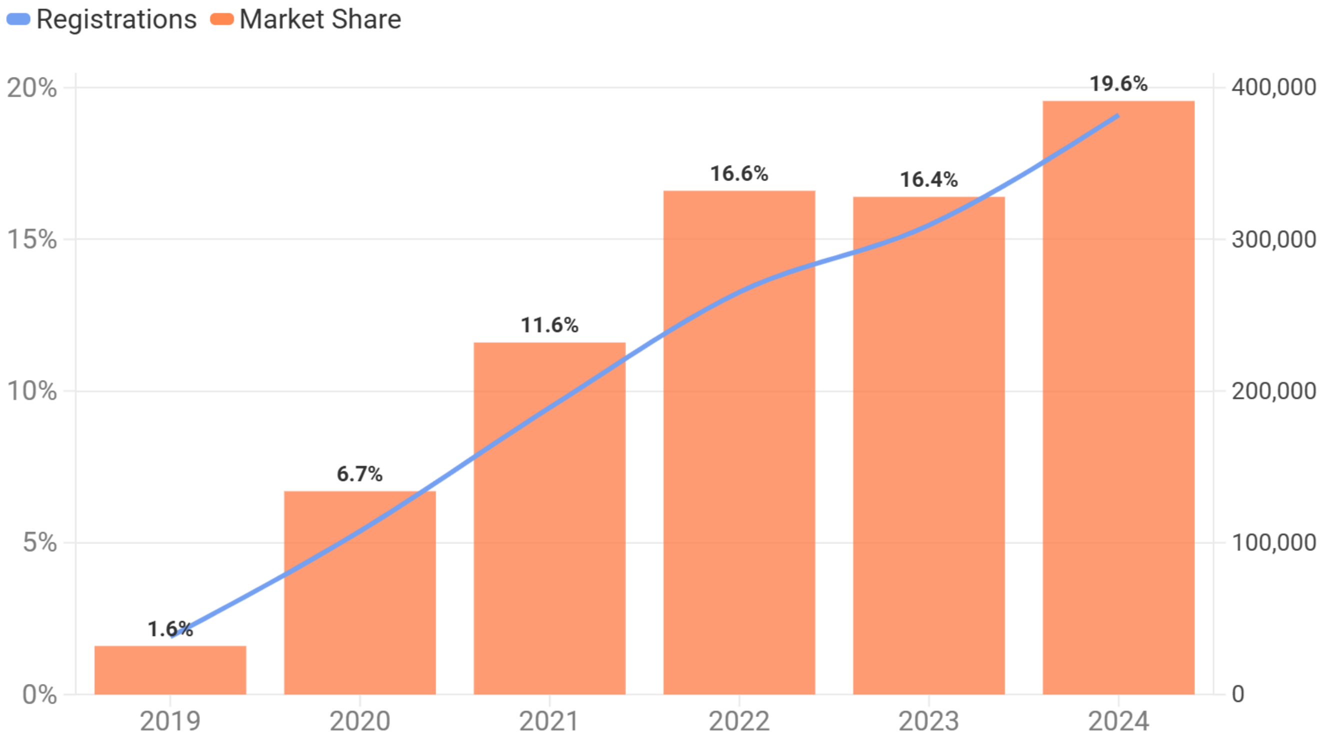
1. 2024 is a success story as EV sales accelerate and the automotive industry meets the ZEV mandate

1.1 EV sales reach a record breaking 20% of the UK market

2024 was the first year in which the Zero Emission Vehicles (ZEV) mandate applied to carmakers, requiring an increasing share of zero emission cars to be sold in the UK between 2024 and 2035. T&E's analysis of 2024 UK car sales data from Dataforce shows that the UK ZEV mandate has driven a significant increase in EV sales in 2024, following two years of stagnation at around 16.5% due to a lack of regulation to drive the market. The figure below shows how in its first year, the mandate boosted EV sales to a fifth of the market, positioning the UK ahead of other major European EV markets, where lack of more stringent regulatory targets for EV sales until 2025 have temporarily slowed EV growth[3]. Comparatively EV sales in the EU were 13.8% and in Europe's biggest car market, Germany, at 14.1%.

2024 UK EV sales take off with first year of ZEV mandate

T&E analysis of 2024 UK EV sales shows that EV's accounted for a fifth of 2024 sales

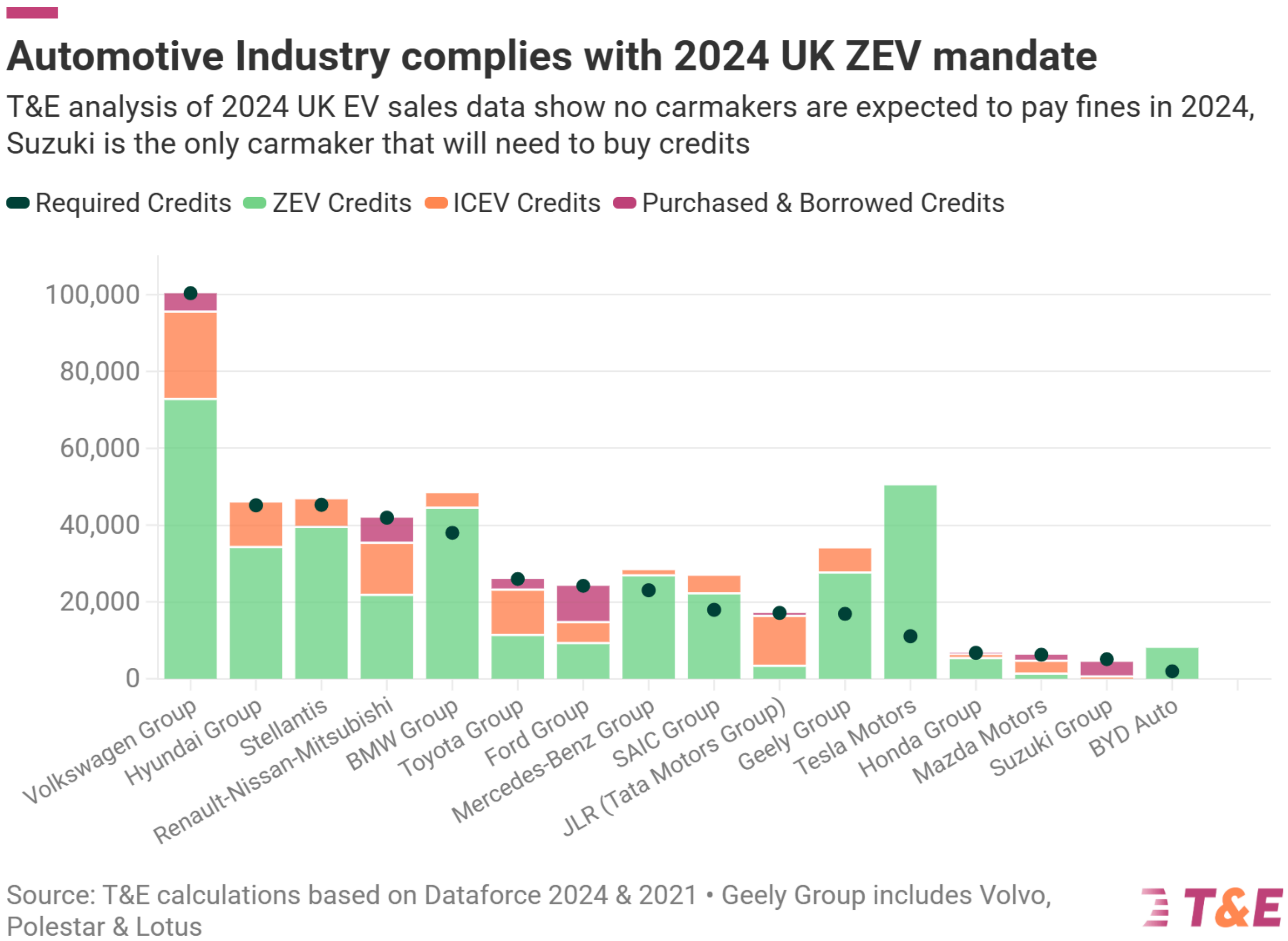


Source: T&E Calculations based on Dataforce 2024 & 2021 data

[3] EU EV sales are expected to grow this year to a similar level as required by the 2025 ZEV target as EU 2025 car CO2 standards kick in after stagnating since 2021.

1.2 With flexibilities the automotive industry meets the 2024 UK ZEV mandate

Despite initial concerns from carmakers in 2024 about their ability to meet the 2024 ZEV mandate[4], T&E's analysis of 2024 sales data confirms that the automotive industry complied with the ZEV mandate. EV sales in the UK reached 19.6% in 2024—slightly below the 22% headline 2024 target of the ZEV mandate, but above the 18% threshold required when accounting for industry-lobbied flexibilities[5].



At the manufacturer level, all major carmakers have met their 2024 targets thanks to various compliance pathways provided by regulatory flexibilities in the ZEV mandate. Suzuki is the only carmaker that will need to purchase credits in order to comply due to 0 fully electric sales in the UK in 2024. As flexibilities were lobbied in by carmakers it was expected that a mix of strategies would be used by carmakers to comply in 2024 beyond a pure increase in electric sales. This follows the precedence set by carmaker compliance with CO2 targets in 2020/2021 where ICE

[4] Guardian. (2024, 08, 05) UK carmakers say they may miss government targets on EV sales.
[5] Guardian. (2024, 01,03) Big carmakers lobbied UK to weaken or delay electric car rules.

efficiency improvements, increased hybrid and plug in hybrid sales and flexibilities in the regulation were used to supplement electric sales for compliance[6].

All manufacturers, except purely electric ones, employed a mix of options for compliance. Hyundai, Stellantis, BMW, Mercedes-Benz, SAIC, and Geely ensured compliance by increasing EV sales and lowering the average emissions of their internal combustion engine (ICE) sales. Out of carmakers which sell a mix of EV and ICE cars Geely Group sold the highest share of EVs at 36% followed by SAIC Group at 27%.

VW, Renault-Nissan-Mitsubishi, Toyota, Ford, Tata Motors, Honda, Mazda, and Suzuki are expected to supplement EV sales and emissions reductions by borrowing credits from future years or purchasing them from overcompliant manufacturers. Both options are allowed by the flexibilities in the regulation but it is up to individual carmakers which option or mix of options they will choose. Suzuki is the only manufacturer that will be required to purchase credits this year due to no fully electric sales in the UK in 2024 meaning that Suzuki is not able to borrow enough credits from itself to comply. An excess of 61,000 credits is available for purchase in the market from overcompliant carmakers—almost double the 30,000 credits needed by carmakers requiring additional compliance support. Overcompliant manufacturers with surplus credits for sale include purely electric carmakers such as BYD and Tesla, along with BMW, Mercedes-Benz, SAIC, and Geely (Volvo, Polestar and Lotus).

Collectively the data shows that 2024 was a success story for the UK ZEV mandate. The automotive industry has met the UK ZEV mandate target and sales have accelerated ahead of other key European automotive markets. This has happened as total car sales increased 2.6% year on year indicating that carmakers did not hold back on ICE sales to meet the mandate and that increasing EV sales go hand in hand with a growing car market[7]. It also demonstrates the key role that ambitious and robust regulation plays in driving growth in EV sales and shows that collectively, the flexibilities already included in the regulation are more than sufficient to support carmakers that need a softer compliance pathway to meet the ZEV mandate over the next couple of years.

Current ZEV mandate compliance pathways explained

1. The main way to comply with the ZEV mandate is by **increasing the share of electric vehicle sales** - one electric vehicle sale is worth one credit.
2. Carmakers can **transfer surplus credits for their non-EV CO2 efficiency improvements** to help them comply with the ZEV mandate. In practice, this means that any manufacturer that is improving the CO2 efficiency of their internal combustion engine cars (e.g. by selling more hybrids) from a 2021 baseline, will

[6] T&E.(2021) Analysis of emissions from new cars in 2020.
[7] SMMT. (2025, 01, 06) December 2024 new car registrations.

have a lower ZEV mandate target as a result. This flexibility is available until 2026 and transferable allowances are capped at 65% in 2024, 45% in 2025 and 25% in 2026.
3. Manufacturers can **trade surplus credits with other manufacturers**, which will have lower prices than the non-compliance penalty included in the regulation. This will allow manufacturers that have a surplus of credits to earn additional revenue to reward their progress on EV sales, while allowing manufacturers that have transitioned slower comply without paying fines.
4. **Borrowing** enables manufacturers to use credits from future compliance years to help them meet the current year targets. Borrowing is available until 2026, and has a cap on the number of credits that can be borrowed - i.e. 75% of the target for cars in 2024 (90% for vans), and 50% in 2025 and 25% in 2026 for both cars and vans. Manufacturers pay a 3.5% compounded interest rate to reflect lost emissions savings from delayed EV uptake.
5. Carmakers are able to **earn an additional 0.5 credit for EVs used in car clubs** for 18 months. **Additional 0.5 credits are also available for electric wheelchair accessible vehicles**.

2. Maintaining the ambition of the ZEV mandate is crucial for delivering more affordable EV models and securing the UK's automotive industry

The government launched a consultation on the ZEV mandate last month including asking if further flexibilities should be given to the car industry which would weaken the ZEV mandate. This would slow down EV uptake and reduce the climate impact of the regulation. For consumers and the future of the UK's automotive industry, the government needs to hold firm and instead prioritise a robust UK automotive industrial strategy and focus barriers to EV, charging like the high cost of public charging. If financial support is considered to support sales it should focus on small and medium affordable models to drive greater supply to the market.

2.1. The ZEV mandate is delivering more affordable EVs to the UK market

There is increasing evidence that the ZEV mandate is bringing EV prices down in the UK[8]. That EV prices are dropping is not a sign of market failure; it's by design. The ZEV mandate was always intended to compel carmakers to bring prices down and supply more affordable EV models to market as they compete to meet targets and attract the mass market to EVs. Regulations create markets, and that is exactly what the ZEV mandate is doing for more affordable EVs.

[8] Fleetnews. (2024, 10, 15) Electric discounts make new cars cheaper than nearly new.

To date, due to relatively low EV targets, carmakers have largely prioritised premium and large EVs with higher margins, especially SUVs which currently make up 61.4% of UK sales and, on average, are more expensive than their non-SUV counterparts[9]. European manufacturers have been slow to take advantage of the affordable end of the market as they prioritised value over volume in their strategies. In the face of increasing competition from Chinese and other manufacturers, the “value over volume” approach is starting to come under scrutiny. Manufacturers including Renault and Stellantis are increasingly focusing on launching more affordable, cheaper mass, mass market models, particularly in the context of the switch to EVs.

As such, increasing the availability of affordable EVs is key to carmakers bringing consumers on-board with the EV transition. Ford, which has a long standing reputation of selling affordable, smaller cars (e.g. the Ford Fiesta, the UK’s most popular car) and which has a significant gap in ZEV credits which needs to be made up by borrowing or purchasing have focused their electric offering on the premium market. All three Ford EV models available in the UK at the end of 2024 cost at least £40,000 all were premium, large SUVs[10]. This year Ford is bringing the Puma Gen-E to the market in 2025, costing around £30,000 as the carmaker pivots to more affordable options for 2025 ZEV compliance. While in the first year of the ZEV mandate Ford did not maximize EV sales, T&E forecasts that in 2026 Ford will have an excess of credits and based on production forecasts Ford is predominantly planning to comply with the ZEV mandate via increased EV sales[11] with a wider range of models hitting the market.

Between 2024 and 2027, the ZEV mandate is expected to bring over a dozen new EV models priced at £23,000 or less to the UK market[12]. Some models in this price bracket are already available (e.g. the Dacia Spring priced at £14,995 and the Citroen e-C3 priced from £21,990)[13]. This will not happen without regulatory certainty and robust UK and EU regulations - the ZEV mandate and the EU’s 2025 car CO2 standards, which kick in this year, are the driving force behind carmakers starting to ramp up the development, production and supply of affordable models as higher targets require carmakers to appeal to a wider range of consumer profiles and budgets. To ensure these affordable models arrive, at volume, on the market as planned, keeping the ZEV mandate unchanged is key. Any weakening will give carmakers the signal to prioritise affordable volumes to markets with strong regulation hurting UK consumers access to cheaper EVs.

If the Government is considering financial support for EV sales, it should prioritise the affordable segment by capping incentives at EVs priced around £30,000 or less with a focus on small and medium sized models in the A, B and C segments supply of which is only just scaling up. This approach would send a clear market signal that the Government is committed to expanding access to small, affordable EVs.

[9] T&E. (2023) Small and profitable: Why affordable electric cars in 2025 are feasible.
[10] Offering checked in December 2024 on Ford’s website.
[11] Global Data Production Forecast
[12] T&E. (2024) The ZEV mandate fuels the UK’s EV Boom.
[13] Prices checked on manufacturer’s websites in December 2024.

To ensure that support reaches low income families a social leasing scheme which provides government backed affordable EV leases for those on low incomes and are car dependent should be the mechanism prioritised. Such a policy would avoid the perception of subsidising higher-income households purchasing expensive electric SUVs, thereby promoting fairness in the use of public funds.

However, financial incentives alone will not be sufficient to drive a successful EV transition. **The Government should focus on complementary measures that address key barriers to EV adoption, including:**

- **Chargepoint infrastructure:** Ensuring a continuing rapid rollout of charging infrastructure, with high standards for reliability and consumer experience.
- **Public charging costs:** Tackling the cost disparity faced by those without access to home charging, particularly by addressing high public charging tariffs.
- **Consumer confidence:** Introducing standardised battery health reporting, accelerating EV-specific training for the maintenance and repair sectors, and equipping car dealers with the knowledge to support customers.

2.1. A robust ZEV mandate is crucial for ZEV mandate delivering EV, battery and charging investment and growth to the UK

Leading on EVs is also an industrial opportunity for the UK and will support the Government's clean energy mission to reduce reliance on volatile fossil fuels, instead powering cars with clean, renewable, UK produced electricity. A strong ZEV mandate is key for attracting and growing domestic EV and battery manufacturing and the lucrative, associated supply chains by providing the required regulatory certainty for EV investments to flow into the UK. A successful EV transition is critical for the future of the UK's automotive industry, economic growth and the high quality jobs that support it[14] as global automotive markets go electric.

The ZEV mandate has already attracted £23 billion in announced EV and battery manufacturing investments in the UK over the last three years[15] as well as a commitment by the charging industry to invest £6 billion in charging infrastructure by 2030[16]. In order to realise the planned, and attract further investments, keeping the ZEV mandate unchanged is key. Any weakening of the ZEV mandate, including the introduction of additional flexibilities aimed at slowing down the EV transition and reducing the carbon savings, would harm the UK's credibility as a hub for EV investment and clean technologies not just for EVs but across cleantech sectors which are crucial for the future of the UK economy.

To ensure the success of the EV transition the ambition of the ZEV mandate needs to be maintained. To successfully support the automotive industry the Government needs to prioritise

[14] CBI Economics (commissioned by ECIU), Electrifying Growth
[15] T&E. (2024) Carmakers' EV Investments: Is Europe falling behind?
[16] ChargeUK.

developing a robust automotive industrial strategy as part of its planned industrial strategy to support UK EV and battery manufacturing and the onshoring of the associated supply chains.

The UK's automotive industrial strategy should include:

- Investment support for battery production scale up and on-shoring of the associated supply chains, in particular in the form of OPEX support from the National Wealth Fund, should be prioritised to support successful scale-up of domestic manufacturing.
- The introduction of carbon footprint and ESG rules to support domestic battery manufacturing. The UK's grid is less carbon intensive than other major automotive manufacturing countries giving the UK a competitive advantage.
- A UK-EU EV and battery partnership allowing the tariff free export of UK manufactured EVs, batteries, minerals and components to the EU.
- Ensuring a level playing field by introducing measures such as tariffs when foreign competitors benefit from unfair subsidies.
- Removing barriers to get EV manufacturing and battery gigafactories online, including planning and grid connections.
- Securing key alliances to matchmake between companies upstream and midstream, and EV manufacturers.

4. Conclusion

The ZEV mandate is one of the most important climate policies in the UK's arsenal providing one of the single biggest carbon cutting measures. It is not only accelerating UK EV sales, but also bringing down prices, encouraging carmakers to bring a wider range of (particularly affordable) models to market, and providing a clear trajectory for industry that is key for investment. While there are some challenges in the automotive industry currently, weakening supply-side regulations will not help them.

Instead, delivering a robust automotive industrial strategy and developing a series of measures to boost EV demand both in the short and long term would be the best approach to ensure the UK's climate targets, and vital EV investments, are not put at risk.

Further information

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