

# **Executive summary**

The global automotive industry is at a critical juncture, shaped by intersecting forces of electrification, geopolitical trade tensions, and national decarbonisation policy. The latest consultation for the UK's ZEV Mandate seeks to end the sale of internal combustion engines (ICE) by 2030, and has played a pivotal role to-date in shaping the domestic EV market. OEMs are likely to pressure Government to potentially soften targets by allowing hybrid vehicle sales to 2035 and extending the scope of credit trading measures. While car sales are broadly aligned with ZEV goals, van adoption lags, exacerbating challenges for manufacturers. These developments occur amidst growing pressure for affordability as median EV prices remain higher than ICE vehicles, despite a maturing second-hand market offering parity.

At the same time, China's dominance in EV manufacturing, driven by early and deliberate government subsidy, sees companies like BYD reshaping the competitive landscape and surpassing Tesla in global sales in 2024. Chinese OEMs are also seeing aggressive price competition and market saturation at home. This dynamic is driving Chinese EVs into international markets, including the UK, where the demand for affordable EVs under £25,000 remains unmet by Western OEMs. Simultaneously, protective tariffs introduced by the US and EU on Chinese EV imports are likely to shift supply chains and funnel oversupply into less restrictive markets like the UK, creating opportunities but also intensifying price competition.

A ZEV Mandate that supports sales of hybrids to 2035 could create a dilution in EV sales as OEMs double down on the most profitable PHEV segments, while the influx of lowercost Chinese EVs may accelerate demand for affordable models and spur competition. A scenario seeing tariffs on Chinese EV imports could exacerbate affordability challenges and slow uptake whilst also creating opportunities for domestic OEMs. Regardless we expect to see instability across residual values for both ICE vehicles and higher-cost Western EVs to 2030. For the UK market, addressing the interaction between global tariffs and the ZEV Mandate's targets will be vital to provide certainty for consumers, infrastructure investors, and manufacturers navigating the EV transition.



**Ryan Thomson** Expert in energy solutions



**Toby Thornton** Expert in e-mobility



## **Model scenarios**

President Trump's inauguration has created market uncertainty around international trade policy. It is expected his presidency will shift the US towards a more protectionist policy, particularly through implementing heavy tariffs on imports from China in the auto sector. This raises significant second order effects for the UK and Europe with the potential to significantly alter EV price and availability. As a result of this, we have modelled three different scenarios on UK EV sales.



### Scenario 1: Base Projection

- The US, UK and Europe do not implement significant trade tariffs on any passenger vehicle types, with no material change to global trade policy.
- Economic conditions continue to recover from the inflationary shock with rising disposal income, falling interest rates and improving consumer confidence.



### Scenario 2: Chinese Dumping

- The US raises trade tariffs on Chinese passenger vehicles, leading to an increase in sales of Chinese vehicles into the UK to the extent of oversupply.
- EV to ICE prices fall as a result of more Chinese EV's, inflation falls alongside interest rates on car finance.



#### Scenario 3: Tariff War

The US, UK and Europe all impose trade tariffs on Chinese passenger vehicles, triggering a "tariff war".
 Inflation continues to be above target creating weaker disposal income growth. Interest rates fall less quickly, consumer confidence remains low.

### **Model variables**

Baringa's Auto Sales Model is a multivariable tool generating sales forecasts based on 10 economic and market variables. The core drivers of UK vehicles sales have been used to create three distinct, but realistic, scenarios for new passenger vehicle sales out until 2030. These reflect different economic and trade conditions.

- Base Projection: reflects current economic conditions and trade policy e.g. no Trump Tariffs.
- Chinese Dumping: reflects the impact of excess Chinese EV capacity being locked out of the US as a result of Trump Tariffs and thus being dumped onto European markets.
- ▲ Tariff War: reflects the EU and GB aligning trade tariffs with the US under Trump 2.0 and thereby blocking Chinese EV's from their respective markets.

Variable	Base Projection	Chinese Dumping	Tariff War
Disposable Income	Average 3.6% Increase pa	>3.6% increase	▼ 2.5 - 4% increase
Average New EV Price	In line with inflation	Average 2% YoY – Below inflation	Average 3% YoY – Above inflation
Auto Imports from China	▲ Slow increase	▲ 20% Maximum	▼ 3% Minimum
ICE to EV Price Delta	1.6%	1 - 1.5%	<b>1.7 – 2.2%</b>
Consumer Confidence	+11 points (2024-2030)	Accelerated Improvement	▼ Drops by -5 points, delayed improvement
Interest Rates (Car Finance)	▼ Towards 3%	▼ Towards 3%	<b>▼</b> Higher for longer

<sup>\*</sup> For the purposes of this analysis we define EVs as Battery Electric Vehicles (i.e. excluding hybrids).



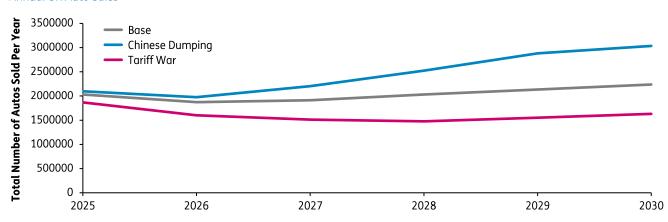
## **Auto Sales Outlook**

In our base projection, we expect an improvement of auto sales by 2026, driven by economic improvement. This will be followed by a steady increase in annual UK auto sales, up to c.2.2 million in 2030.

Comparatively, our Chinese Dumping scenario sees a stronger growth in auto sales 2025 - 2029, which then gradually flattens out. This is due to improving disposal incomes, falling prices as a result of cheaper Chinese imports and falling interest rates.

In the tariff war scenario, auto sales have a sharper downturn, lasting until 2028 as a result of slower economic improvement. Although sales gradually return to growth, this remains tempered and remains below 2025 levels by 2030.

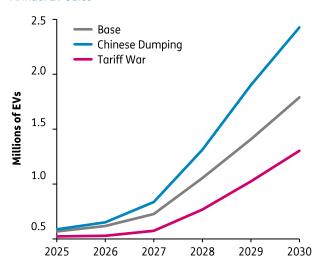
#### Annual UK Auto Sales



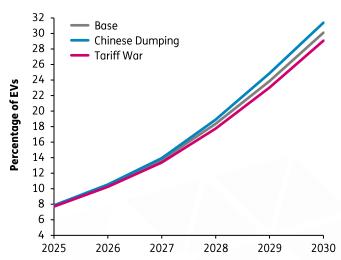
# **Annual EV Sales**

The current consultation reinforces that the UK's ZEV mandate is driving EV sales towards 100% of all new passenger vehicle sales by 2035. This is especially effective given the £15,000 penalty on OEMs for every ICE vehicle that fails to comply with the target. Although the tariff war scenario sees a plateau in EV sales, this is short lived as the ZEV mandate forces EV sales growth upwards (LHS). Alternatively, the Chinese dumping scenario has more aggressive growth of EV sales, driven by overall higher auto sales growth up to 2030. Consequently, there is a divergence in percentage of vehicles on the road which are EV's. By 2030, this compounds to c.3% difference in EV's on the road, between the Chinese dumping and tariff war scenarios (RHS).

#### Annual EV Sales



## Percentage of Vehicles which are EV on road



Source: Baringa Modelling



# **Charging Infrastructure: Glut or Deficit?**

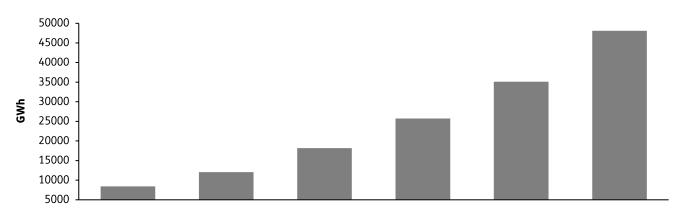
The base scenario shows steady growth in charging points, reaching approximately 450,000 by 2030 to support approximately 30% of the total vehicle parc.

As the number of EV drivers without access to home charging increases, more EV drivers will adopt public charging and, as a result, the utilisation rates for all public charging locations will gradually increase over time. Simultaneously, we forecast improving profitability, as CPOs seek to further increase utilisation rates, slowing growth in new CP installations and taking a more focused approach to infrastructure ROI.

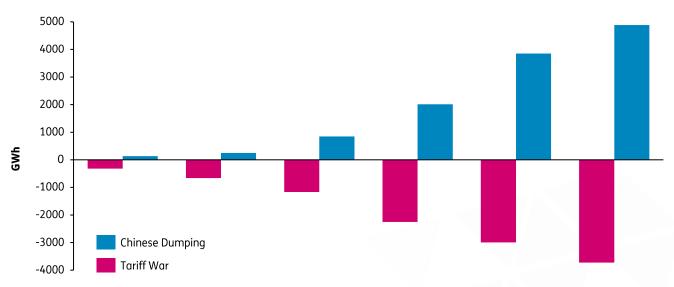
However, a dumping scenario could accelerate the rollout of charging infrastructure, particularly ultra-rapid chargers, as affordable Chinese EVs accelerate the shift from early adopter to early majority adoption. This highlights the need for urgent investment in high-capacity public charging across the UK, including in more remote locations but also on-street charging for those households that lack an off-street parking bay – especially as 33% of households are reliant on this.\*

In contrast, the tariff war scenario results in a significant shortfall in charging points compared to the base projection, driven by slower EV adoption and high variability in utilisation across the network. The deficit is most pronounced in ultra-rapid chargers, creating risks for when demand eventually rebounds. This highlights the danger of reactive underinvestment, particularly in rural areas and where the earliest charge point deployments are reaching the end of life, where adoption may be at risk of lagging.

#### GWh Use Of Charging - Base Projection



## GWh Use Of Charging - Annual Delta From Base Scenario

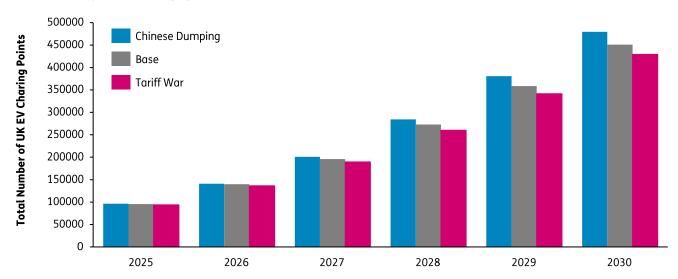


**Source:** Baringa Modelling | \*Source: Field Dynamics



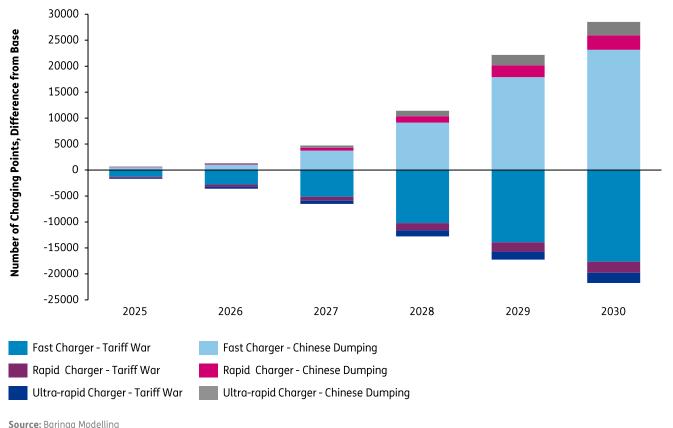
# **Charging Infrastructure Type**

Total Number of Public EV Charging Points Needed



**Source:** Baringa Modelling

### Number of Public Charging Points – Delta from Base Scenario



Source: Baringa Modelling



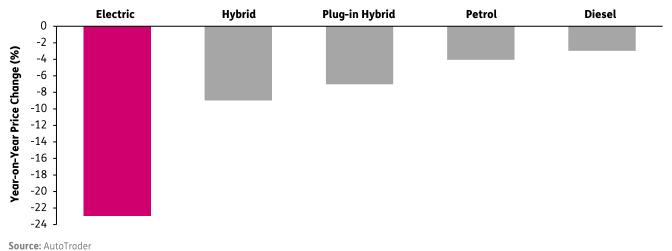
# **EV's Continue to Face Large Depreciations**

Whilst UK used EV values have dropped significantly in recent years, further declines are projected given;

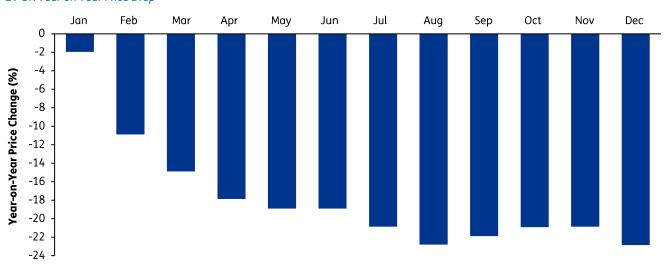
- 1. Aggressive discounting by OEMs to meet ZEV sales targets and avoid excessive fines
- 2. Continued sales of PHEVs to 2035 (subject to ZEV Mandate consultation outcome)
- 3. Continued improvements in battery technology making older models less desirable
- 4. Concerns over battery health deterring used EV buyers / dealership sales
- 5. Salary sacrifice schemes continue to drive new EV sales.

While private buyers primarily base their EV purchase decisions on the upfront list price rather than total cost of ownership, residual value is a critical factor for leasing companies, which account for 75% of new EV registrations in the UK. The financial viability of these companies depends heavily on accurate RV forecasts, which are currently under pressure due to market trends and structural challenges. A Chinese dumping scenario exacerbates the current dynamic, presenting an affordable EV option for those consumers not able to take advantage of the low Benefit in Kind rate for salary sacrifice.

#### Average Annual Price Drop by Fuel Type



#### EV UK Year on Year Price Drop



Source: AutoTrader



# However, this is expected to Converge with ICE Post 2030

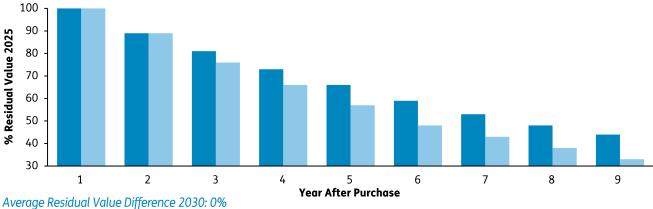
Current high depreciation rates for EV's are being driven by time limited factors which we expect to dissipate post 2030, driving a convergence in the EV-ICE depreciation rate. Whilst there will be variances within EV and PHEV segments (across premium and mass-market products), the current high rate of EV innovation is expected to plateau around 2030, as the technology matures. This will, along with higher consumer confidence in battery life, facilitate convergence of value with existing mature technology.

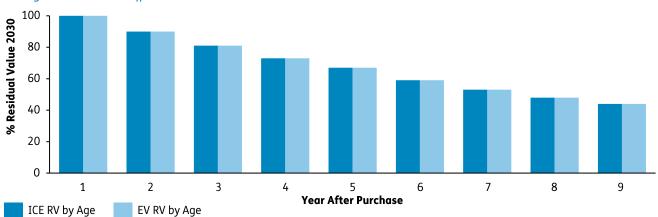
Factor:	Battery Life Uncertainty	Rapid Innovation	ICE Taxes (City Emissions)	ICE Ban
Current – 2030	Negative EV	Negative EV	Negative ICE	N/A
2030 +	Positive EV	Positive EV	Negative ICE	Negative ICE

Key: Favours EV Favours ICE Source: Baringa Modelling

#### UK EV vs. ICE Residual Value, 2025 & 2030

Average Residual Value Difference 2025: 8%





Source: Baringa Modelling



# Speak to our experts about the e-mobility transition

Transport and Infrastructure Transaction Advisory



Poorav Chheda
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- Supporting transactions on EV charge point operators and developing strategies for growing public charging infrastructure in UK and Europe.
- Leading transaction due diligence and growth strategy projects across a range of Energy verticals.

Decarbonisation of Transport Portfolios for FS institutions



Noelle Greenwood

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- Developed transition strategies for clients across Automotive and Aviation portfolios
- Assess clients' transition plans, ages of fleets, expected improvements in fleet efficiency and uptake of alternative fuels

Green Vehicles and Public Charging



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- Implementing growth and profitability strategies in the charge point operator (CPO) industry, including market entry and acquisition.
- Delivering commercial and operational advisory services for power and low-carbon businesses, with expertise in e-mobility and corporate renewable energy procurement strategies.

Green Homes and Domestic Charging



**Rebecca Teesdale**rebecca.teesdale@baringa.com

Helping clients understand the challenges of green residential solutions (including EV) and enabling them to make informed strategic decisions, optimise investments, and align with regulatory requirements, ultimately driving sustainable growth and competitive advantage in the evolving energy market.

Macroeconomic Scenarios and Climate Modelling



**Nick Forrest**nick.forrest@baringa.com

- Translating macroeconomic, political and regulatory risks into actionable corporate insight
- Developing scenarios and generating modelling outputs across both and economic and climate variables

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