



# A Sustainable Car Industry

**Stakeholders in the car industry will not like the content of this article. The purpose is to stimulate debate around how this sector can become more sustainable both in environmental terms but also in financial terms.**

The UK industry stands at an inflection point largely driven by the desire to decarbonise road transport which forms a significant part of the UK 2050 Net Zero pledge. If it wasn't for environmental science, we would still be happily going about our business in fossil fuel powered vehicles. However, the EV has left the driveway and the UK government has boldly set out its legislative framework to ensure that by 2035 all new passenger cars sold must be Zero Emissions.

There remain significant challenges ahead for the sector as a result of this direction and they can be summarised as:

- 1 Electric Vehicles are currently more expensive to manufacture than an equivalent ICE vehicle
- 2 The charging infrastructure / range is resulting in customer reticence
- 3 Electricity costs have soared because of geopolitical matters and the UK's power generation mix
- 4 Inflation eroding consumers disposable income
- 5 Government policy uncertainty

**Let's look at each of these issues in turn.**

## EV Costs and Pricing

The big delta in costs are related to batteries and software plus the requirement for OEMs to amortise huge R&D investments in the new technologies. Battery costs are reducing but slower than predicted. Battery technology is improving in terms of yield but slower than the market needs and this results in a large pricing differential for similar products.

The Vauxhall Corsa has been one of the most popular cars for the last two decades. It has petrol and EV options.

Here is how they compare:

	Deposit	Monthly Payment	Term Cost	Monthly Cost
Petrol	£6,370	£133	£11,158	£309.94
BEV	£10,179	£269	£19,863	£551.75

\*Data from Vauxhall website June 2023

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Both excellent cars but essentially do the same thing. Running costs on the BEV will be lower but not by £242/month. Fuel costs over the 18000-mile contract term will be about £500 cheaper for the BEV assuming charging at home on a 25p/kwh tariff.

Unfortunately, that is not a compelling proposition for most consumers who will not choose to be c£8000 worse off.

Assuming OEMs are pricing to make a sustainable margin, this approach to car leasing or ownership does not look sustainable.

### **Charging Infrastructure**

The debate around this has raged over the last few months possibly fuelled by some horror stories of EV drivers being unable to recharge as they ventured off to more remote parts of the UK over the Christmas holiday period. It is hard to separate fact from fiction, but I remain convinced that charging infrastructure is rapidly improving despite the grid restrictions. There was a period where sales were outstripping charge point growth leaving a potential shortfall, but this appears to be diminishing as investment flows into infrastructure.

In some senses charge point access is a short-term problem made more acute by the range offered by many OEMs EV offering. 150 to 250 miles appears to be where the current product sits but newer technologies promise a near doubling of range in the next generation of product. In a country the size of the UK that should represent an adequate capacity for the vast majority of journeys. There remains a challenge for those drivers who have no off-street parking but creating capacity in workplaces, car parks could address some of those constraints.

### **Electricity costs**

The war in Ukraine came at an awkward time and that's not to underplay the terror that the country has had to endure compared to UK citizens having to pay more to charge up their new car. The issues shouldn't be conflated. However, a quadrupling of electricity prices on the wholesale market has had a material impact. In December 2021 a megawatt of electricity would cost £126. By August 2022 it was £511.

In the Corsa example above that means that had pricing remained at pre-war level an EV driver would have a cost advantage of c£1400 over the 18,000-contract mileage. Equivalent of £40/month saving.

### **Inflation**

Inflation is proving to be stubbornly sticky for the UK. It has scarcely been an issue for the last 10 years and whilst the BoE consider the current levels to be transient in nature that is of little consolation to consumers who are being squeezed by higher costs on everything and an explosion in debt servicing payments.

In February, the markets were expecting a peak in interest rates of around 4.75% but with inflation not falling as quickly as expected we are now being warmed up for 5.5% peaks. Anyone renewing a mortgage in 2023 is likely to be faced with a quadrupling of rate which will have severe impacts on disposable incomes. The average UK mortgage was (£137k) in 2021 and those with that size of debt would have had modest interest payments of less than £250/month. Anyone remortgaging this year will face an increase in payments of c£400/month. It's an amount that's similar to a car loan or lease and hence the anticipated knock-on effect to new car demand.

### **Policy**

Political intervention into markets is dangerous. The car market is complex, nuanced and competitive. As such, governments wishing to drive decarbonisation of road transport have a number of challenges and limited funds to deploy. Most voters care far more about healthcare, the cost of living, education and immigration than they do environmental matters. In the post pandemic debt climate, it is hard to see where funds can be released from in order to smooth the transition from ICE to EV. It's a long-term strategic direction in a climate that demands short term soundbites.

The UK sought to lead in this policy area as part of our release from the EU. It was a totemic gesture but like so many one that was not professionally researched. As a result, we have the ZEV Mandate which has taken 3 years to bring to a final version which will shape legislation. We have shared thoughts on the ZEV mandate and its impact in previous articles, so we will not revisit it here. In summary, whilst it is a well consulted and well-intentioned pre-legislative paper it is destined to create chaos in the UK car market as it comes into effect against a backdrop of the four factors mentioned above.

The automotive sector faces a Gordian knot of a problem as it attempts to decarbonise. In a sense it feels unfair that the same pressures are not being applied to other polluting industries or the generation of electricity.

The Iron Law of Climate (Roger Pielke) states that when forced to choose between economic growth and climate action, politicians and decision makers will always choose economic growth. Hence, we have the re-opening of Lignite fired power stations in Europe and exponential growth of coal fired power in India and China. Meanwhile UK automotive looks set for a brutal shakeout.

### An Alternative Manifesto

Here then is the bit that many won't like. Some ideas on how to make this work and drive a more sustainable auto sector.

**1** Make less stuff – 2015 saw a UK passenger car market of 2.7m units. The last three years have average 1.6m units. Dealers have made more money; OEMs have made more profits. The UK economy still works. Keeping cars for longer has a number of opportunities that can help find a new model.

- Longer ownership cycles can mean lower monthly payments
- It can also drive retention in the aftersales arena as longer warranties are offered
- EVs should last longer mechanically but perhaps there are opportunities to replace less efficient battery cells and upgrade software / user interfaces without changing the vehicle.

Making EVs is more carbon intensive than making ICE equivalents however, over the lifetime of the asset there is less carbon emitted. So, if we limit production and extend lifecycles, we can have a more sustainable model.

### **2** Re-imagine aftersales

Aftersales has the potential to become more about reconditioning, maintenance and upgrades. If ownership cycles are extended, then the refurbishment that is invested by dealers prior to remarketing could be part of the service and maintenance plan for the first owner. EVs having less repair is an opportunity for the aftermarket if approached in the right way.

### **3** Reduce costs in distribution

The sector has to reduce operation cost across the board. If we settle for a lower market potential, we have to accept a different approach to achieving scale economies. That will involve pivoting more towards investment in digital sales and less infrastructure in traditional showrooms. Of course, this is not an overnight exercise, but OEMs have a responsibility to signpost how they may view a future distribution network so investors can make informed decisions around property and portfolio optimisation.

Whether you agree with the points above or not. It is imperative that we introduce some more progressive thinking about passenger cars, how they are made, distributed, funded and remarketed. EVs are different and they deserve different thinking as opposed to shoe horning them into the modes and behaviours that have worked with ICE. Government are not going to throw billions of tax revenues or borrowing into a profitable sector and its political suicide to row back on the commitment to decarbonise road transport.

As a sector we have to embrace the change and do what we do best – innovate and execute with precision. Let us know your thoughts and alternative manifesto's for securing a greener and more sustainable future for the automotive sector.

**If you would like to know more about how we can help, then please contact us at the details below.**



**Alastair Cassels**  
Partner

E: [Alastair.cassels@mha.co.uk](mailto:Alastair.cassels@mha.co.uk)



**Steve Freeman**  
Partner – Automotive & Transport  
Sector Head

E: [steve.freeman@mha.co.uk](mailto:steve.freeman@mha.co.uk)

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