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Price parity 2024: the final mile

Assessing UK's progress towards price parity in the first year of the Zero Emissions Vehicle Mandate



Price parity 2024: the final mile

Key points

Many analysts have forecast that upfront price parity – where a buyer pays no more for an EV than a petrol car – will be reached by 2026. To assess UK progress towards price parity in the first year of the Zero Emissions Vehicle (ZEV) mandate, we reviewed the costs of a representative sample of 7 new EVs and their petrol counterparts, accessed in three ways – purchasing outright, leasing and personal contract purchase (PCP), making 20 scenarios in all. We found:

- EV upfront costs were 12% more than petrol equivalents, not the 50% often cited.
- Upfront price parity, or payback in less than 1 year, for the electric vehicle choice in 6 out of 20 (30%) scenarios.
- In a further 5 out of 20 scenarios (25%), payback in 2 ½ years or less.
- Motorists with average mileage could save up to £7000 over the next 4 years by choosing an EV over a petrol equivalent, and a minimum of £3,000 over 4 years, whether they lease or buy by PCP or outright; more if they drive higher mileage.

To support continued price parity, we recommend: continuing with the ZEV mandate, which is chiefly responsible for delivering upfront price parity; explaining the cost savings better, and busting myths; cutting the tax on public charging; and focusing any additional financial support on home chargers.

Home chargers cost the same whether you are charging a Dacia or a Mercedes, and benefit new and second hand vehicle buyers alike. They are therefore a much more effective incentive for low-middle earners than VAT cuts on new EVs.

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About New AutoMotive

New AutoMotive is an independent data-driven transport research organisation, with a mission to accelerate and support the switch to electric vehicles in the UK. Our approach connects marketing, technology and policy to ensure consumer-focused change.

1. The sound of the crowd – media and industry reporting on EV costs

The 50% myth

The EV market is evolving fast, and many received wisdoms which broadly reflected reality a few years ago are no longer true today. One of these is about upfront cost.

UK media reporting on the price of new electric vehicles in the UK has become anchored to the idea of an upfront cost premium for switching to new battery EVs – versus a comparable petrol car – of 50%¹. However, even Government's own relatively cautious guidance² estimates that an upfront cost premium of 50% was last seen in 2020.

Upfront price parity now or later?

Upfront price parity – when an EV costs no more than an equivalent petrol vehicle, and the buyer does not need to rely on future benefits in lower running and maintenance costs – is rightly seen as a key milestone in EV evolution. When price parity is reached, buying an EV is no longer just the environmentally

¹ See for instance The Times. [Is UK running out of road on its electric ambitions?](#), [Electric vehicles heavily discounted to shift unsold stock](#), [Electric car market stalls as consumers opt for petrol vehicles](#)

² Gov.uk. [Electric vehicles: costs, charging and infrastructure](#)

responsible thing to do or the long-term financially prudent thing to do. It allows consumers to start saving immediately.

Government's guidance referenced above states that "some [new] EVs could be around the same price to purchase as a petrol or diesel car by the end of the 2020s".

However recent forecasts, supported by our own analysis, suggest that it will happen much sooner than that.

The International Energy Agency's 2024 EV Outlook³ highlighted that for medium cars, the cost differential in the UK was already down to 20%. Analysis by Goldman Sachs⁴ suggested that price parity could be achieved in some markets as soon as 2025, whilst Bloomberg⁵ concluded that this would be reached for large vehicles and SUVs in Europe by 2025, with small and medium cars following a year later. Finally a research study published by Exeter University identified 2024⁶ as the point where parity could be achieved.

In fact it tends to be only incumbent manufacturing industry figures, who benefit from a slower transition to cost parity, who are arguing that price parity will not be achieved until 2030⁷.

Those are what the models tell us. But in relation to prices on the forecourt today, research by AutoTrader suggests that for second hand EVs in the UK, upfront cost

³ IEA. [Global EV Outlook 2024](#)

⁴ Goldman Sachs. [Lower battery prices are expected to eventually boost EV demand](#)

⁵ Bloomberg NEF. [Electric vehicle outlook 2023](#)

⁶ Exeter University Economics of Energy Innovation and System Transition project. [Crossing the tipping point: Electric Vehicles Case Study](#)

⁷ See for example Inside EVs. [EV Price Parity With Gas-Powered Cars May Not Come Until After 2030: Ford CEO](#)

parity with petrol equivalents has already been reached across many makers and vehicle types⁸.

Similarly for new EVs bought through company plans and salary sacrifice, the favourable tax treatment is such that even the EVs with the biggest price differential on petrol equivalents are cost competitive at purchase, and most will be considerably cheaper, whilst lower running costs add significant additional savings.

This note goes further. It suggests that, for some new vehicles bought outside company plans or salary sacrifice, price parity has also already been reached.

Consumer perceptions of price parity

Unsubstantiated and unduly cautious forecasts on upfront EV cost appear to have had an impact on public perceptions of cost. Research by Transport and Environment with consultancy SKIM⁹ found that the average consumer thought that new EVs would be £10,000-15,000 more expensive to buy than petrol vehicles – something which our analysis strongly suggests is not the case.

Furthermore, misperceptions about the upfront costs of EVs have the effect of undermining understanding of the financial benefits from running them – potentially to the extent that this message may not be reaching the consumer at all. Amidst all the mythology of exploding EVs¹⁰, their responsibility for potholes¹¹ and increased greenhouse gas emissions¹², the immediate driver benefit of EVs – saving money by switching from refuelling to charging – risks being lost.

⁸ Auto Trader. [The Road to 2035 – the used electric car market.](#)

⁹ Transport & Environment. [The early majority: the next phase of the EV transition in the UK](#)

¹⁰ The Telegraph. [We must put a stop to the electric vehicle revolution – before someone gets hurt](#)

¹¹ Grantham Research Institute on Climate Change and the Environment. [Daily Mail admits making up story about electric vehicles causing potholes](#)

¹² See for example, Carbon Brief. [Factcheck: 21 misleading myths about electric vehicles](#)

A updated view of the total cost of ownership

Government's own cost-benefit analysis last year suggested that - whilst upfront price parity might be a few years off - someone buying a new EV next year will recoup the additional upfront cost compared with petrol vehicles over 5 years due to lower running costs, whilst EVs may already be cheaper to own over a 5 year period than diesel cars bought today¹³.

However the Department for Transport analysis last year assumed no access to low cost overnight or EV-specific tariffs, products which are now offered by all the major energy suppliers. The analysis also took no account of the reduction in upfront costs of purchase which Government regulation would achieve.

As well as looking at upfront costs, this research note revisits that total cost of ownership analysis, taking both factors into account. It suggests that - thanks to the Government's ZEV mandate - we are now much closer to upfront cost parity for all models than before. As a result payback periods are significantly shorter - and some models offer consumers the ability to save thousands of pounds over a four year period.

The remainder of this research note sets out our conclusions on the savings for private buyers of new EVs.

Chapter 2 sets out the upfront costs of outright purchase. Whilst this is a less common way of purchasing new vehicles, it is the one where increasing cost parity is easiest to identify, given the simplicity of one payment (the outright purchase price) - as is the reduction in cost, by comparing this with the initial recommended retail price.

¹³ See footnote 3 and Gov.uk. [Zero Emission Vehicle Mandate and CO₂ Regulations: Joint Government Response - Cost Benefit Analysis](#)

Chapter 3 covers the running costs of EVs compared with petrol vehicles. Given that second hand EVs have already reached cost parity with equivalent petrol cars, the lower running costs explained in this part represent immediate cash savings for second hand buyers¹⁴.

Chapter 4 puts together the upfront costs of new EVs with their running costs to estimate how much consumers could save over 4 years - and, where the EV is more expensive, how long the payback period is. This part also presents the payback periods and cash savings for the more complex but more popular ways that we also buy new cars - leasing and personal contract purchase (leasing with the right to buy), again, over a 4 year period.

2. Upfront cost parity - mission accomplished?

The ZEV mandate

The Zero Emission Vehicle mandate sets firms increasing targets for the proportion of battery electric vehicles they must sell. Manufacturers can meet the target by selling more electric vehicles, but also by buying excess “allowances” from firms who beat their targets and by borrowing allowances from future years.

Manufacturers can also transfer over excess allowances from the UK’s relatively undemanding emissions targets for vehicles with tailpipe emissions. Based on the sales from January to May 2024, New AutoMotive estimates that the effect of

¹⁴ Auto Trader. [The Road to 2035 - the used electric car market.](#)

these excess allowances is to lower the overall industry-level target in 2024 from 22% to 18.2% for the remainder of the year.

We anticipate that firms will wish to get as close as reasonably possible to their target through sales. A reliance on buying other firms' excess allowances risks being at the mercy of sellers such as Tesla if there is a shortfall, whilst borrowed allowances need to be repaid with interest.

The final resort for firms is to make a "buyout payment" to Government for any shortfall, after sales, trading, borrowing and transfer of allowances is taken into account. As the buyout payment is set at £15K, it remains cheaper for firms to discount electric vehicles by as much as £14K in order to meet their targets.








Real world upfront costs now

To assess how the market is responding, we compared the real world prices of new battery electric vehicles with the recommended retail prices of petrol equivalents. We identified all models currently on sale in both electric and petrol versions, and found the most popular EV model variant on the Autotrader website which was also available for the petrol version of the car. The 5 lowest cost EVs within 50 miles of London and within 50 miles of Sheffield on 4th May were then found and the average taken. Models with fewer than 5 cars available for a given model variant in each region were excluded¹⁵.

7 battery EVs met these conditions - cost data is shown overpage.

¹⁵ Whilst 10 is a relatively small sample of cars, it generally accounted for the majority of new cars of that model and variant available through the Autotrader website and there were clear signs of manufacturer pricing policy, with many cars being similarly priced - for example, 4 out of 5 in the Sheffield sample of the Vauxhall Corsa-e GLS had an identical discounted price.

Table 1: Recommended retail and real world upfront costs of new EVs compared with petrol equivalents.

Illustration	Battery EV	RRP of battery EV	Real world EV price	Equivalent petrol vehicle	RRP of petrol vehicle	The EV price is ..
	Peugeot e2008 GT	£39,900	£27,068	Peugeot 2008 GT	£31,185	13.2% (£4,117) cheaper
	Citroen eC4 MAX	£36,000	£24,460	Citroen C4 MAX Puretech 130 Auto	£27,050	9.6% (£2,590) cheaper
	Peugeot e208 GT	£36,000	£26,814	Peugeot 208 GT	£25,360	5.7% (£1,454) more expensive
	Vauxhall Corsa-e GS	£34,500	£24,404	Vauxhall Corsa GS	£22,015	10.8% (£2,389) more expensive
	MG ZS Trophy 72.6KWh	£33,500-£36,000	£25,380	MG ZS Exclusive	£20,835	21.8% (£4,545) more expensive
	BMW iX1 MSport	£52,000	£49,139	BMW X1 MSport	£39,650	23.9% (£9,489) more expensive
	Hyundai KONA Advance	£39,000	£38,297	Hyundai KONA Advance	£26,040	47.1% (£12,257) more expensive

The average EV across our analysis is just 12% more expensive than its petrol equivalent. Of our 7 vehicles, only one is close to 50% more expensive new than

the equivalent petrol car. The others all carry a less than 25% markup – of which 2 are very close to price parity, and 2 others are actually cheaper to purchase than the recommended retail price of the corresponding petrol car.

Unsurprisingly, given the steep falls in upfront cost of new battery EVs and the existing price parity between second hand EVs and petrol cars, the costs of leasing and personal contract purchase (PCP) arrangements have also rapidly converged for the different fuel types. Results from our analysis of the same 7 vehicle models, using data from the car leasing comparison site [leasing.com](https://www.lease.com) and manufacturer websites, is covered in part 4 of this research note.

Cost parity achieved?

The ZEV mandate therefore appears to be doing what it should – upfront price parity has been achieved for several popular models just 5 months after introduction.

By far the biggest discounts are currently being seen from manufacturers who have sold a relatively small proportion of EVs and have achieved only limited outperformance on emissions targets for their petrol and diesel cars. In this category Stellantis, which owns Citroen, Peugeot and Vauxhall, has made reductions of £10-12,000 on their new vehicles. However, the cost reductions will ripple through the rest of the market as firms compete for market share.

Some critics of the ZEV mandate have argued that this will not happen as there is a natural ceiling of demand for EV that cannot be breached. However, it is self-evident that cars which are not only cheaper to buy but also significantly cheaper to run than legacy petrol vehicles will pick up market share, as long as myths and misinformation are addressed.

Mythbusting and communications are covered in the final chapter of this note. We turn to the running cost savings from electric vehicles in the next section.

3. Running cost parity – £1000 a year for free

Running costs for vehicles have four main components – charging (or refuelling, for petrol and diesel vehicles), maintenance, tax and insurance.

Charging vs refuelling

It was highlighted earlier that the cost savings from EV charging are not widely recognised. This is unfortunate, because the savings have the potential to be very large indeed.

When charging on a standard electricity tariff, currently price capped at 23.7p per kwh, the annual saving for a consumer driving an average mileage in one of the 7 models covered above is £630–820 per year. This saving can be achieved with a standard slow charger plugged into an 3-pin socket, without the installation of any additional specialist equipment.

On a low cost EV and/or overnight tariff, which typically costs 7.5p but may necessitate the installation of a dedicated EV charger, the saving increases to between £950 and £1200 each year, an additional saving of £320–380 per year, less the cost of charger installation. We assumed £900 as the cost for purchase and installation of a domestic EV charger.

The savings shrink the more reliant the motorist is on public chargepoints. These are more expensive due to the costs of installation and network upgrades; compliance with labyrinthine planning and permitting processes; a lack of price competition in some areas; and inequities in the tax system, which impose VAT of 20% on public chargers, and 5% for charging at home.

At current public charge point prices and taxation levels, New AutoMotive analysis of 4 major charge point providers¹⁶ suggests that for an average mileage driver *wholly* dependent on public chargepoints, the saving is much lower – of the order of £50 to £200 per year.

All of the savings reported above are for drivers travelling 8,000 miles per year. Drivers who travel further will run up significantly bigger savings.

Maintenance costs

Government's own cost-benefit analysis published to accompany the ZEV mandate explained that ZEVs are expected to have lower maintenance costs as they are simpler in design and have fewer moving parts. Even some moving parts such as wheel brakes will experience reduced wear, through regenerative braking.

Data collected and published by BookMyGarage¹⁷ on real-world servicing of EVs in the UK found that an EV service costs on average £103 a year – £48 less than for petrol cars and a bigger saving on diesel and hybrid vehicles.

Overall average maintenance bills, including repairs as well as servicing, are also expected to be less – even if infrequent EV repairs individually cost more. However, we have not sought to quantify this saving.

¹⁶ BP, Ubitricity, PodPoint and Charge Place Scotland – the average of each firm's average price is 53p per kwh.

¹⁷ BookMyGarage. [How Much Does An Electric Car Service Cost?](#)

Tax

In addition to VAT and fuel duty, which are covered in charging and refuelling costs, there are 2 further components to a tax comparison of the running costs for EVs and petrol vehicles.

Road tax (vehicle excise duty) - EVs are currently exempt from road tax until April 2025. After that the standard rate will apply (currently £190/year). This means someone purchasing one of the 7 new EVs featured in our analysis will make a one-off saving of £200-250 compared with the corresponding petrol vehicle.

Benefit in Kind/Salary Sacrifice for EVs purchased via an employer - EVs are subject to a benefit in kind rate which is fixed at 2% until April 2025, increasing by 1% each year thereafter until April 2028, compared with rates of 30-34% for the petrol equivalents of the 7 new EVs featured in our analysis. However these benefits are not available to drivers whose employers do not offer salary sacrifice arrangements or have a company car scheme, or to retired consumers. This research note focuses only on consumers buying or leasing EVs directly.

Insurance costs

As with upfront cost, reporting on the cost of insurance has been subject to anecdote and unrepresentative examples, which have tended to inflate the apparent cost of insuring an EV.

Reporting on research by Confused.com¹⁸ cited the 27% markup on insuring a Jaguar I-Pace compared with a Jaguar F-Pace - vehicles which retail for £69,995 and £48,805 respectively. Given that the electric model is 43% more expensive than the petrol model, it is unsurprising that the electric model costs more to insure.

¹⁸ The Times. [Why does electric car insurance cost so much?](#)

In its latest reporting, Confused.com¹⁹ cites average insurance costs of £670 for new petrol cars and £910 for new EVs, but this figure appears to be distorted by a long tail of more expensive cars and issues associated with insurance of the Tesla Model Y given the non-repairability of its batteries²⁰.

We have used instead the consumer research provider NimbleFins²¹, which reported an average EV insurance costs in Q1 of £654, compared with £635 for an average petrol vehicle. NimbleFins also reports that for electric vehicles in the £30-40,000 range (such as most of our sample), a more typical insurance cost is £400-500, although for vehicles priced at more than £50,000 (such as the BMW), insurance is likely to be more than £800 - so we believe £654 is a reasonably cautious midpoint estimate.

Whilst a single price is a simplification, the effect is limited, as for the purposes of the total cost of ownership, we are only looking for the *difference* between EV and petrol car insurance, and despite media commentary to the contrary, the difference appears limited.

¹⁹ Confused.com. [Electric car insurance](#).

²⁰ Business Insider. [Auto expert says Tesla's Model Y battery pack has 'zero repairability'](#)

²¹ NimbleFins. [Average Cost of Electric Car Insurance UK 2024](#) and [Average Cost of Car Insurance UK 2024](#).

4. Total costs of ownership - (almost) every which way, EVs are cheaper

In this section we put together the upfront and ongoing costs in the previous two sections to analyse the cost savings and payback periods for battery electric vehicles compared to their petrol counterparts, for outright purchase (including for high mileage drivers), leasing and - the most popular choice - personal contract purchase or PCP.

We assume that 90% of charging is done at home, and 10% at public charge points, for occasional longer journeys. We work on the basis that consumers do install and pay for a domestic charge point, and their home charging is done on an EV or overnight tariff. However, over a 3-4 year period, charging on a standard tariff off a 13-amp plug would deliver similar savings. A dedicated domestic charge point delivers the immediate benefits of convenience and faster charging, as well as longer term savings.

Outright purchase

For all 7 of the vehicles in our study, EVs demonstrate cost savings over their petrol counterparts. The magnitude of savings varies depending on the model and the specific conditions. However, it's notable that the payback periods are relatively short in many cases. For two models, the Citroen C4 and the Peugeot 2008, those savings were instant as the available discount for the BEVs had lowered the price below that of their petrol counterparts.

There were two models in the group of 7 we sampled which had a longer than four year payback period. The BMW X1 and the Hyundai Kona took approximately 10 and 12 years to pay back respectively. This was largely due to the outright purchase prices being much higher for the BEV version than the ICE vehicle. This may be a result of BMW and Hyundai currently being on track with their mandatory EV targets under the ZEV mandate, reducing any pressure to discount²².

Table 2: Total costs and savings of outright purchase and ownership of new EVs compared with petrol equivalents.

Petrol car	Price	Annual costs (yr)	Battery EV	Price	Annual costs (yr)	4 year savings (£)	Payback time
Peugeot 2008 GT	£31,185	£2,286	Peugeot e2008 GT	£27,068	£1,240	£7,749	Instant savings
Citroen C4 MAX	£27,050	£2,250	Citroen eC4 MAX	£24,460	£1,268	£5,889	Instant savings
Peugeot 208 GT	£25,360	£2,131	Peugeot e208 GT	£26,814	£1,241	£2,430	2 years
Vauxhall Corsa	£22,015	£2,159	Vauxhall Corsa-e	£24,404	£1,249	£1,578	2.5 years
MG ZS Exclusive	£20,835	£2,396	MG ZS Trophy 72.6KWh	£25,380	£1,274	-£275	5 years
BMW X1	£39,650	£2,296	BMW iX1	£49,139	£1,262	-£5,983	10 years
Hyundai Kona	£26,040	£2,270	Hyundai Kona	£38,297	£1,260	-£8,818	12 years

²² See New Automotive. [Electric Car Count](#) for more on manufacturers' positions.

A small but significant group of drivers have significantly higher annual mileages. Around 10% of drive 12,000 miles or more and account for approximately 30% of all miles driven in the UK²³.

If a high mileage driver were to switch, the payback times would be significantly shorter and cash savings significantly higher. Those with the lowest upfront prices, the Citroen C4 and Peugeot 2008 GT see the largest savings with the Citroen being £7,745 cheaper to own than its petrol counterpart and the 2008 saving the motorist £9,784 over the four years. The vehicles which are more expensive at point of purchase all see on average an improvement of 1-2 years for payback time.

Leasing

Leasing has long been considered a way in which people can access the savings of battery electric vehicles quicker at lower upfront cost. Company car leasing through salary sacrifice programmes offer significantly greater savings from their tax-advantaged treatment - however, it is private leasing that is covered here.

We took data from the car leasing comparison website leasing.com and assumed a 4 year leasing agreement with 9 months initial rental and a maximum mileage of 8,000.

Leasing two EVs offered payback periods of less than 1 year, whilst a further three were paid back over 2 years. This means that the majority of leasing agreements were already cheaper for the BEV compared to the petrol equivalent overall.

However, the cars offering the greatest savings under a leasing deal were not necessarily those which gave the most savings from outright purchase. Whereas both Peugeot EVs were amongst the very best performing models for outright

²³ New AutoMotive. [Switch first, save fast: helping high mileage drivers change to EVs.](#)

purchase, only one was cost competitive in a leasing deal. In contrast the electric Hyundai Kona was much more cost effective to lease than to buy outright, compared with its petrol equivalent.

Table 3: Total costs and savings from leasing and running new EVs compared with petrol equivalents.

Petrol car	Leasing costs (total)	Other annual costs (yr)	Battery EV	Leasing costs (total)	Other annual costs (yr)	4 year savings	Payback time
Peugeot 208 GT	£14,150	£1,941	Peugeot e208 GT	£14,798	£1,051	£2,912	<1 year
Hyundai Kona	£17,017	£2,087	Hyundai Kona	£18,357	£1,070	£2,728	<1 year
Citroen C4 MAX	£13,207	£2,060	Citroen eC4 MAX	£14,989	£1,078	£2,166	1 year
Vauxhall Corsa	£12,000	£1,969	Vauxhall Corsa-e	£14,490	£1,059	£1,151	2 years
MG ZS Exclusive	£13,527	£2,206	MG ZS Trophy 72.6kwh	£16,646	£1,088	£865	2 years
Peugeot 2008 GT	£12,692	£2,096	Peugeot e2008 GT	£17,218	£1,050	-£340	>4 years
BMW X1	£21,941	£2,106	BMW iX1	£26,910	£1,072	-£832	>4 years

Personal Contract Purchase (PCP)

Around three quarters of all new car purchases are bought with a PCP agreement - few hand over a cheque or cash on such a major purchase.

Therefore it is imperative that motorists who purchase a BEV through this type of agreement are able to access a similar cost saving as those leasing or purchasing upfront.

We took PCP cost data from the deals on manufacturers' own websites. These were representative examples for a four year contract, with a 8,000 mile maximum and without consumers exercising the option to make a final ("balloon") payment to buy. The Hyundai Kona was omitted from the analysis due to a lack of customisable representative deals on the Hyundai website.

In this instance we levelled the upfront cash deposit across EV and petrol variants, meaning that the EV either saved money immediately (where the running cost savings outweighed the higher monthly payments) or did not save money over the four year contract, because the running cost savings were not high enough to tip the balance.

Notably, only 2 out of 6 cars are cheaper upfront and over the 4 year period, although 2 other cars are reasonably close to price parity over a 4 year term. PCP therefore offers the fewest opportunities for upfront cost savings,

This may be a result of uncertainty over residual values of electric vehicles at the end of the 4 year term, following a period in which this small but very rapidly growing second-hand market has been extremely volatile. Whilst the cost of leasing arrangements will also be subject to depreciation, the provider of the car finance can only lose by over-estimating the residual value and reclaiming an asset at the end of the term for a value which is worth less than they expected.

In contrast a PCP finance provider risks not only losing by over-estimating the residual value, but also from offering the customer the right to buy at a final price which might under-estimate the market price. The doubled uncertainty may account for the need to hike monthly payments for EVs under PCP arrangements.

Table 4: Total costs and savings from PCP and ownership of new EVs compared with petrol equivalents.

Petrol car	PCP costs (total)	Other annual costs (yr)	Battery EV	PCP costs (total)	Other annual costs (yr)	4 year savings	Payback time
Peugeot 2008 GT	£21,378	£2,286	Peugeot e2008 GT	£22,413	£1,240	£3,419	Instant savings
Peugeot 208 GT	£16,427	£2,131	Peugeot e208 GT	£19,207	£1,241	£1,050	Instant savings
Citroen C4 MAX	£20,951	£2,250	Citroen eC4 MAX	£25,940	£1,442	-£791	> 4 years
BMW X1	£29,717	£2,296	BMW iX1	£35,364	£1,262	-£1,241	> 4 years
Vauxhall Corsa	£16,403	£2,159	Vauxhall Corsa-e	£21,996	£1,249	-£1,733	> 4 years
MG ZS Exclusive	£12,834	£2,397	MG ZS Trophy 72.6kwh	£23,175	£1,278	-£5,137	> 4 years

5. Conclusions & Recommendations

Conclusions

In all cases EVs are cheaper to run, on average saving the consumer £1,000 a year, and in the majority of instances (11 out of 20) any higher upfront cost are paid back in 2 ½ years or less.

Furthermore, in 6 out of 20 cases, EVs are cheaper upfront or payback in less than 1 year - saving consumers up to £7000 over 4 years, and a minimum of £3000 whether they lease, buy by PCP or buy outright .

There is no consistent pattern in payback periods by mode of purchase. Models which were significantly more expensive on outright purchase were considerably cheaper to lease or buy by PCP, and vice versa.

This highlights the importance of research for consumers when finding the vehicle and the deal which will best suit their needs and also will allow them to access savings. Two rules of thumb are highlighted below.

If you buy outright - you will “earn back” any higher upfront cost of purchase at a rate of approximately £125 for every 1000 miles you drive.

If you buy via lease or PCP - if your annual mileage divided by 100 (A) is more than the difference in monthly payment between EV and petrol car (B), you have the potential to “earn back” any difference in opening deposit at the rate of A minus B each month.

Since the ZEV mandate implementation in January 2024 there have been noticeable discounts in the upfront costs of BEVs as manufacturers race to ensure targets are met. This has also been seen in PCP and leasing agreements with many manufacturers offering 0% APR, generous bonuses, and like-for-like payments between BEVs and petrol cars in PCP and leasing agreements.

Whilst the ZEV mandate has attracted criticism for the lack of consumer incentives, this policy mechanism is ensuring more motorists can afford to purchase an EV, and start accessing the savings from owning an EV quicker.

It is likely that the savings will be higher for consumers of second and third hand vehicles. Further research should look at the second hand market and the total cost of ownership savings that buying a vehicle in this way achieves.

Recommendations for policymakers

Hold steady on the ZEV mandate. Our analysis shows that the ZEV mandate is working. Costs are falling, as firms strive to grow demand and win market share. This means that up front price parity has been reached for some models already, whilst others have payback periods of three years or less.

The mandate has already delivered cost reductions on some cars of £10K or more - three times what would be achieved by the cut in VAT championed by industry trade bodies. Ministers from the outgoing Government deserve praise for rejecting the calls made by some manufacturers to dilute the mandate.

Explain the cost savings better and bust myths. In contrast, the failure of Ministers to do more to rebut myths and misinformation about EVs has been a dereliction of duty. The outgoing Government has been unable to provide any evidence of action to tackle misinformation beyond a single static page on gov.uk, with no personalisation or calculators to show consumers how much they could save. Buried several layers down on gov.uk, where it sits alongside lists of

approved feedstocks for creating renewable fuels, and industry consultations on streetworks access for chargepoint operators, it has very little prospect of even being seen by drivers considering an EV. It isn't the industry that needs to see these pages and be reassured about the benefits of switching, it is consumers.

Government cannot keep arguing that they have done their bit to tackle misinformation by hiding a page on Gov.uk and the rest is a job for industry. Sincere EV industry advocates cannot help but look like they are selling something. Some parts of industry are lobbying for a slowdown – they have no incentive to tackle misinformation; they benefit from its spread.

Consumers will be persuaded of the benefits of electric vehicles when they have information from a variety of sources, not limited to manufacturers but including key automotive, consumer and environmental influencers, as well as Government. There is also the opportunity to facilitate peer-to-peer conversations by helping EV adopters, the vast majority of whom have had a favourable experience, to demystify the realities of owning and using the technology, along similar lines to Nesta's [Visit a Heat Pump](#) scheme.

Cut the tax on public charging. Lower earners are less likely to have the ability to charge from home, so the higher rate of VAT on public chargepoints is inequitable and regressive. It imposes a ceiling on the take-up of EVs, as it means that for 20–30% of the population there is scarcely any financial benefit in switching to an EV at all.

In response to the House of Lords Environment and Climate Change Committee, Ministers were unable to provide any coherent defence of the different rates of VAT.²⁴ There is none. HM Treasury needs to stop busking from budget to budget and come up with a proper plan to replace the loss of revenue from fuel duty as

²⁴ House of Lords Environment and Climate Change Committee Report: EV strategy: rapid recharge needed – [Government Response](#)

drivers switch to EVs – one which supports the direction of travel of Government policy, rather than undermining it.

If restoring consumer incentives, focus support on home chargers, especially for buyers of second hand EVs. Percentage based targets such as VAT reductions disproportionately benefit higher earners buying more expensive and new vehicles, whilst grants on vehicles will be costly if they are to meaningfully supplement the significant price cuts already being offered by manufacturers.

Research carried out by the campaign group Transport and Environment with the consultancy SKIM²⁵ found that free home charger installation was one of the top 3 influencing incentives for consumers in the “early majority” – the consumers who follow the early adopters of innovative technologies, and are more motivated by cost, convenience and confidence. The hassle and uncertainty of installing a home charger is a barrier to take-up, but the experience and convenience of low cost home charging can turn sceptics into advocates.

Home chargers cost the same whether you are charging a Dacia or a Mercedes, and are a benefit for purchasers of both new and second hand vehicles – and any bonus could be limited to second hand vehicle buyers, since many manufacturers are now bundling the installation of home chargers with sales of new EVs.

They even benefit consumers without access to domestic charging through home charger sharing schemes such as Co-Charger²⁶. Support with home charger installation therefore presents a much more effective incentive for low earners than VAT reductions on the cost of purchasing new cars.

²⁵ Transport and Environment + SKIM. [Moving the EV transition from early adopters to “early majority”](#)

²⁶ [Co charger: together we’re electrifying](#)