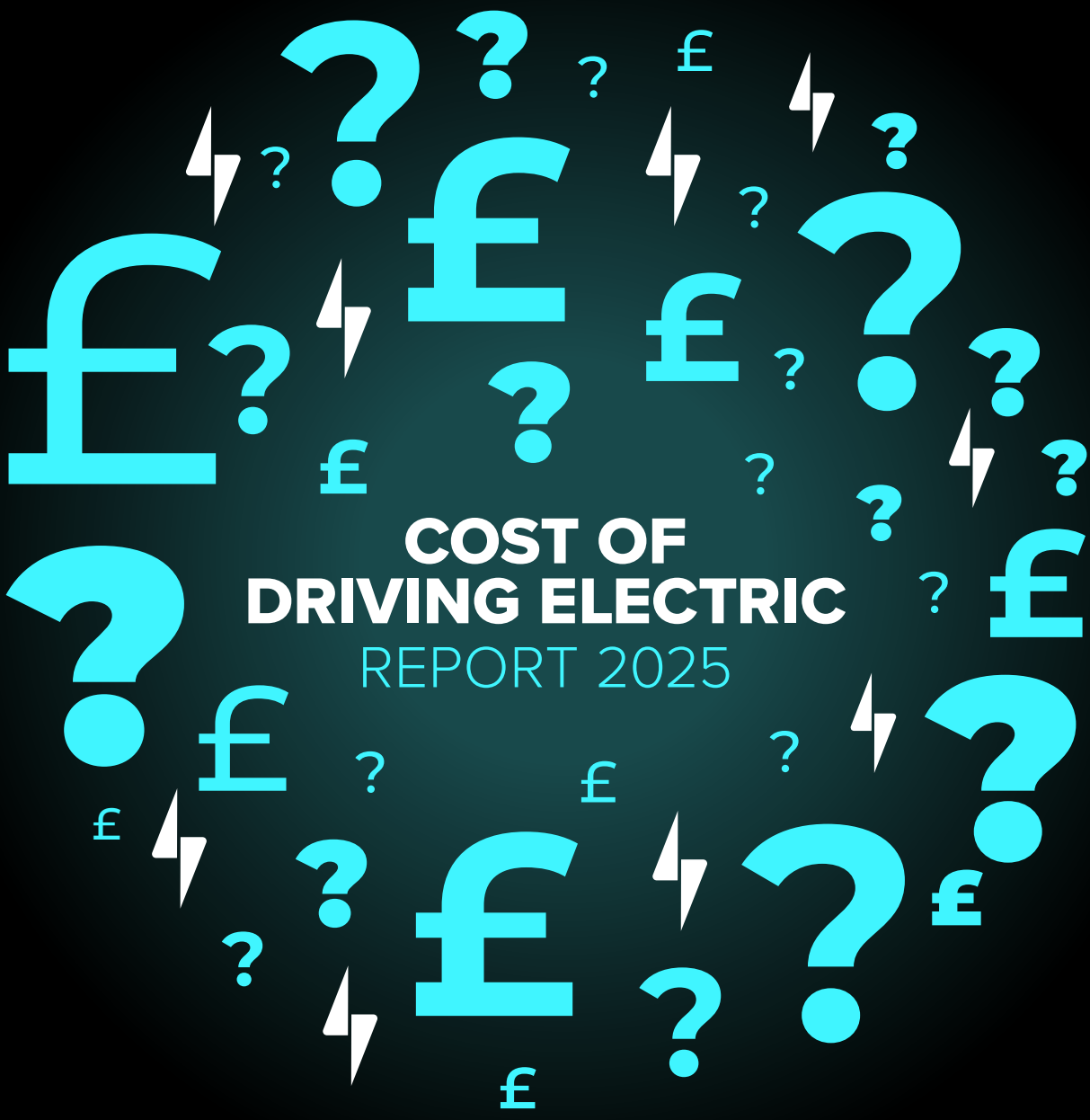

COST OF DRIVING ELECTRIC REPORT 2025

A comprehensive study of the cost of driving battery electric vehicles as commissioned by Electric Vehicles UK and conducted by New AutoMotive.

COMMISSIONED BY

ELECTRIC VEHICLES.UK

CONDUCTED BY

NEW AUTOMOTIVE

SPONSORED BY

JOLT

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EV images provided by Green Car Guide

INTRODUCTION

It is our mission to present the whole picture and not just present a partial, or even partisan, picture of the realities of driving electric. EVUK was launched to bring the EV industry together and better educate mainstream drivers on the benefits, and perceived drawbacks of battery EVs. The Cost of Driving Electric is the first of many initiatives that Electric Vehicles UK will deliver for motorists and its members.

DAN CAESAR CEO EVUK

QUENTIN WILLSON

Motoring Journalist, TV Presenter and Transport Campaigner, FairCharge

Anybody who has owned an electric car for any length of time knows how cheap they are to run. Low home night time tariff charging and the vastly reduced need for regular garage maintenance are just two of the most significant benefits.

Over four years and 45,000 miles all my EV has needed was one set of tyres. Compare that to at least three services, a cam belt change and probably a set of brake pads on the equivalent ICE car, and I'm a couple of thousand quid ahead. But non-EV drivers don't know this.

Which is why the EVUK Cost of Driving Electric report is so important. This report is an industry first and we've carefully looked at the costs of EV compared to ICE to illustrate the financial benefits. For those who drive EVs everyday and already know the numbers, this won't be news to you. But for those who don't (and have perhaps listened to too much anti-EV misinformation) we hope the report will offer an unprecedented insight into the real life costs of running an electric car in the UK.

GINNY BUCKLEY

Founder & CEO of Electrifying.com. Award winning journalist & presenter

These figures expose a striking disconnect in public perception and underscore the indispensable role of the EVUK Cost of Driving Electric report in setting the record straight on the true affordability of electric car ownership. Although the upfront purchase price of a new EV may be marginally higher in some cases, our comprehensive analysis reveals that lower maintenance and running costs can save drivers thousands of pounds over the vehicle's lifetime.

In today's economy, where every pound counts, it is essential to recognise that the real cost of owning an EV is far more competitive than many car buyers realise. This report shatters long-held myths and delivers clear evidence that, when it comes to ongoing expenses, going electric is not only environmentally sensible but also economically astute.

With used electric cars often now costing less than their petrol or diesel counterparts, and price parity being reached on some new EVs, there's never been a better time to make the switch.

Company Introductions

New AutoMotive

New AutoMotive is a think tank that works to increase the pace of the clean energy transition, focusing on road transport – one of the largest sources of greenhouse gases and air pollution. It uses data to tell stories, informing the public and influencing policy development.

New AutoMotive campaigned for and helped win the UK's Zero Emissions Vehicle mandate, one of the most ambitious clean transport policies in the world. Each month it releases the Global Electric Vehicle Tracker, Electric Car Count and Electric Van Count, the most up-to-date sources of EV data in the UK and globally. New AutoMotive also released numerous reports detailing the switch to electric and what the UK government needs to do to make this happen.

Electric Vehicles UK

Launched in September 2024, Electric Vehicles UK is dedicated to supporting the EV industry and motorists aiike.

Formed to tackle misinformation about electric vehicles (EVs) and showcase the benefits of battery-powered transportation, our mission is to build consumer confidence by providing accurate, balanced, and accessible information about EVs.

The team is supported by an advisory board, expert panel and a combination of more than 120 founding members and supporting partners, as well as over 1000 EV drivers. We are enabling the switch to battery electric vehicles by explaining the benefits, educating the masses and busting the myths and misconceptions.

JOLT

JOLT is revolutionising public EV charging, ensuring it is more accessible and affordable, particularly for urban drivers without off-street parking. Its advertising-funded model offers free and low-cost fast charging, reducing costs and accelerating EV adoption.

Operating in Australia, Canada, and New Zealand, JOLT launched in London in 2023, where demand for affordable charging is high. Its 25kW DC fast chargers, powered by 100% renewable energy, provide 7kWh of free daily charging, with additional charging at just 35p/kWh—the UK's lowest public DC rate.

JOLT also benefits cities, providing an income for local authorities from day one and supporting the transition to cleaner transport without government funding.

THE AFFORDABLE DACIA SPRING

UNDERSTANDING THE COST OF DRIVING ELECTRIC

THE NEED FOR CLARITY

Executive Summary

Electric Vehicles UK commissioned New AutoMotive to conduct **the most comprehensive study** ever undertaken on the costs of driving battery electric vehicles (BEVs). This study examines both new vehicles, purchased through three different methods and, perhaps more importantly, used vehicles across three different age ranges. It considers various charging scenarios, including primarily home charging and exclusively public charging, as well as cost comparisons across the most popular vehicle models at three different annual mileages. The study accounts for the total cost of ownership, including purchasing (of all types), charging, insurance, servicing, taxation, and depreciation.

THE MOST COMPREHENSIVE STUDY ON THE COST OF DRIVING ELECTRIC

Why commission this research?

The costs of driving electric vehicles, like many aspects of EV policy and the market, have been clouded by misunderstanding and misinformation. Previous estimates of EV costs and savings have often relied on small sample sizes or focused on only one segment of the market.

Simply comparing the median recommended retail price (RRP) of EVs with that of petrol vehicles is also insufficient, as this approach can be skewed by luxury EV models, which sell in low volumes, and does not account for discounts and incentives.

Electric Vehicles UK set out to provide a definitive, data-driven analysis of the total cost of EV ownership. This study considers **all*** associated costs, not just purchase price and charging, but also servicing, insurance, taxation, and depreciation.

Moreover, it covers the **entire** market, spanning both new and used vehicles, various charging scenarios, and the EV models that consumers actually purchase at real-world prices.

Wherever possible, we have adopted the most rigorous and evidence-based methodologies. For example, our study incorporates a more accurate assessment of real-world charging behaviours, charging costs, and efficiency losses.

While we were unable to include repair and tyre replacement costs* due to limited data, we would like to address these areas in future research and we note that tyre manufacturer (e.g. Enso) are developing 'longer range tyres for EVs.

By partnering with the EV think tank New AutoMotive, we believe this is the most in-depth analysis of EV ownership costs since the introduction of the ZEV mandate.

The findings are highly encouraging and will help educate all stakeholders, especially consumers, on the true costs of driving electric.

50 BEVS WERE ANALYSED

* Studies on tyre replacement are insufficient to date. First-hand experience from EV drivers indicates that wear and tear is relatively limited due to regen braking. This is supported by **studies** that brake dust particulates from battery EVs are lower than from ICE cars.

EVUK believes in the absence of compelling evidence that tyre running costs are higher, that longitudinal analysis is required to provide a definitive conclusion.

Methodology

The report analysed individual costs and total cost of ownership for **50 battery electric vehicles (BEVs)**.

For **15 new vehicle models**, compared three ownership methods: Personal Contract Purchase (PCP) and leasing through salary sacrifice (with both basic and higher-rate tax relief).

Each scenario was assessed across **three different annual mileage levels** and **two charging approaches** (primarily home charging vs. entirely public charging) over a **four-year term**, resulting in **270 scenarios** in total.

For **35 used vehicle models** (registered in 2022–23, 2019–21, and 2017–19), compared costs against **internal combustion engine** (ICE) counterparts using the same mileage and fuelling criteria, generating an additional **210 scenarios**.

The full list of vehicles reviewed is provided in **Appendix 1**.

Sourced cost data from the following:

- Octopus Electric Vehicles for salary sacrifice leasing costs.
- Leasing.com for leasing costs of equivalent petrol vehicles.
- Manufacturer websites for PCP pricing.
- AA and Auto Trader for used EV and petrol vehicle pricing.
- Parkers and MoneySuperMarket for insurance costs.
- Cleevely Electric Vehicles and Kwik Fit for servicing costs.

Further details on our methodology are available in **Appendix 2**.

FOCUS ON REAL CONSUMER BEHAVIOURS

Demographics of UK car owners

To ensure the "Cost of Driving Electric" report reflects the diverse realities of UK car owners, the 'Acorn' demographic segmentation system was used. 10 of the largest groups were analysed. This approach encompasses a wide spectrum of drivers, representing 75% of the UK population, 79% of households with cars, and 82% of vehicles on the road, ensuring findings are relevant and comprehensive.

Rather than focusing on attitudes or values, key demographic factors and tangible car ownership patterns were used, such as whether vehicles are company-owned or private, new or used. Using the Acorn Knowledge Tool on the Tableau Public platform, common vehicle types, ages, and purchase methods for each demographic were identified. Typical charging behaviours were mapped (home or public) and five EV models per group that best reflect real-world choices based on Department for Transport data were selected.

Through this process, 50 detailed purchase scenarios were created, covering a variety of car ages, financing options, and charging setups. This data-driven approach allowed direct comparison of the costs of battery electric vehicles (BEVs) with equivalent internal combustion engine (ICE) vehicles, helping to clarify potential savings and overcome common misconceptions about EV affordability.

By focusing on real consumer behaviours and broad market representation, the report aims to offer valuable insights into the transition to electric vehicles and enables a wide range of UK drivers to identify themselves in its findings. As the EV industry develops its consumer communication strategy, it will be able to build an approach based on advancing demographic segmentation to maximise efficacy.

THE COST OF DRIVING ELECTRIC OVERVIEW

Summary Highlights

Key findings on savings and cost comparisons

More than 80% of people buying a Battery Electric Vehicle (BEV) in 2025 will save money compared to an equivalent petrol car.

Customers who save will save on average **£5850**, across the term of ownership for the 480 scenarios studied*.

In **90% of scenarios**, consumers who can charge at home save by switching to an EV, compared to **58% of scenarios** where drivers rely entirely on public charging. Many more drivers without home charging could save if they had access to a community charging service such as **Co Charger*****.

80%
SAVE BY SWITCHING TO AN EV*

£5,850
AVERAGE OVERALL SAVING WITH EV OWNERSHIP**

£2,781
USED EV CHEAPER THAN PETROL EQUIVALENT***


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Used EV Market

As the used market represents 7 out of every 8 cars purchased it is the principal access point to battery electric vehicles for end-users. Having been fed by the new BEV market over recent years, used BEVs are now in plentiful supply on the UK's forecourts and sold at a record level in 2024. The market continues to grow and BEVs are being sold at a faster rate than ICE counterparts. This is in part due to the fact that used battery electric cars are **cheaper upfront** than their petrol counterparts for **80% of the models** reviewed, across the entire age range, from recent to older EVs. On average, a BEV was **£2,781 cheaper** than its petrol equivalent. Notably, **9 models (26%)** were over **£5,000 cheaper,** and **2 models** were more than **£10,000 cheaper.**

New EV Market

In the new car market, the tax incentives offered through salary sacrifice mean that for drivers charging mostly at home, savings occur in **97% of cases**, with an average saving of **£4,700** over the period of ownership.

For **higher-rate taxpayers** with access to a salary sacrifice scheme, driving electric is a no-brainer, regardless of charging method. There is no scenario in which a driver, even a high-mileage driver reliant on public charging, does not benefit financially.

For buyers using **Personal Contract Purchase (PCP)** arrangements, the savings increase with home charging and higher mileage. Almost 75% of buyers who charge at home, will save at **10,000 annual miles**.

Price parity is underway here and if the Government maintains a strong **ZEV mandate** in 2025, we expect the proportion of drivers benefiting to rise.

* This was calculated based over the typical term of ownership in 480 scenarios, with the term of ownership for a used EV as 5 years, and a new EV as 4 years.

** Based on 35 used vehicles.

*** Co Charger is an organisation accelerating electric vehicle adoption. It connects hosts who rent out their home EV chargers with neighbours who cannot install a charger of their own, helping them make the switch to electric.


HOME CHARGING


PUBLIC CHARGING

Drivers with Driveways

For used car owners with access to home charging, driving electric was cheaper in **90% of scenarios**. Where it was more expensive it was in some instances of low annual mileage (<5,000 miles per year); however, even in these cases driving electric remained cheaper for 74% of the vehicles analysed. The average saving over five years for someone charging at home was **£5,317**.

Drivers without Driveways

For consumers without access to home charging, the higher cost of public charging reduced savings. At **5,000 annual miles**, over **60% of used EVs** were still more affordable over a five-year term than their **ICE** counterparts. However, at **10,000 annual miles**, this dropped to **46%**. The cost of charging away from home is a significant challenge for all stakeholders, not least drivers.

Government action is needed to reduce public charging costs and improve charging access for those without off-street parking.

Insurance

While EV insurance costs were slightly higher, around **£88 per year** more than for comparable ICE cars, the **lower servicing costs** (around **£79 per year** less) **almost entirely offset this difference**.

Tax

From 1 April 2025, drivers of electric vehicles will need to pay Vehicle Excise Duty (VED) – road tax for the first time*. For most EV drivers, this will be £195 a year, while drivers of new BEVs with a list price that exceeds £40,000 will pay more.

From **April 2025**, the **Expensive Car Supplement** will apply to EVs with an RRP above **£40,000**, making some EVs that are currently cheaper than ICE vehicles more **expensive to own**. The Government should reconsider this policy, as it risks pushing certain models beyond affordability just as price parity is being achieved.

Home Chargers

The Government could address home charger challenges at a low cost while also boosting **EV demand and grid resilience**, by restoring the **Electric Vehicle Charge Point Grant** for homeowners purchasing used EVs.

* The 2025 EV road tax changes are as follows: New zero-emission cars registered on or after 1 April 2025 will be liable to pay the lowest first-year rate of VED (which applies to vehicles with CO2 emissions 1 to 50g/km) currently £10 a year. From the second year of registration onwards, they will move to the standard rate, which will be £195 a year after 1 April 2025. Zero emission cars (BEVs) first registered between 1 April 2017 and 31 March 2025 will also pay the £195 standard rate. The Expensive Car Supplement exemption for electric vehicles will end on 1 April 2025. New zero emission cars (BEVs) registered on or after 1 April will therefore be liable for the Expensive Car Supplement. The Expensive Car Supplement currently applies to cars with a list price exceeding £40,000 for the first five years the standard rate is paid. This will be £425 a year from 1 April 2025, which means EV drivers with an 'expensive car' will pay £620 per year for road tax.

Action on Charging

These findings highlight the need for ambitious Government action to reduce public charging costs and improve charging access for those without off-street parking.

To lower public charging costs, we recommend:

- Reducing VAT on public charging to 5%
- Restructuring public charge point standing charges
- Extending or redeploying the Renewable Transport Fuel Obligation to support renewable electricity in charge point provision instead of legacy biofuels for the ICE car market

To improve access for those unable to charge at home, we recommend:

- Extending permitted development rights for home charging installations
- Simplifying permitting for cross-pavement solutions
- **Introducing standard cross-pavement licence agreements** to streamline the approval process
- Implementing a **'Right to Plug' policy** for the **10–15% of UK households** in multi-occupancy blocks with shared parking
- Encourage innovative commercial solutions that make charging more affordable and plug the gap between home charging and high-powered hubs. Expand 7kW and 22kW AC options, as well as introducing more innovative speeds like 25kW DC charging. Models like advertising-subsidised charging (see JOLT profile on p11) can help drive accessibility and affordability.

Currently, the UK has the worst legislative provision for such consumers among the six largest European markets.

COST OF OWNERSHIP ANALYSIS

CONSUMER SAVINGS PROJECTIONS

How MANY consumers will save money with an EV?

Our estimates suggest that more than 80% of EV buyers in 2025 will save money over the period of ownership[1] compared to a similar ICE vehicle.

This also means that many consumers who do not choose an EV will be missing out on savings. Those who choose not to buy an EV this year, particularly those purchasing a new car on PCP or leasing privately, as well as those who could access salary sacrifice through their employer, are missing out on significant savings.

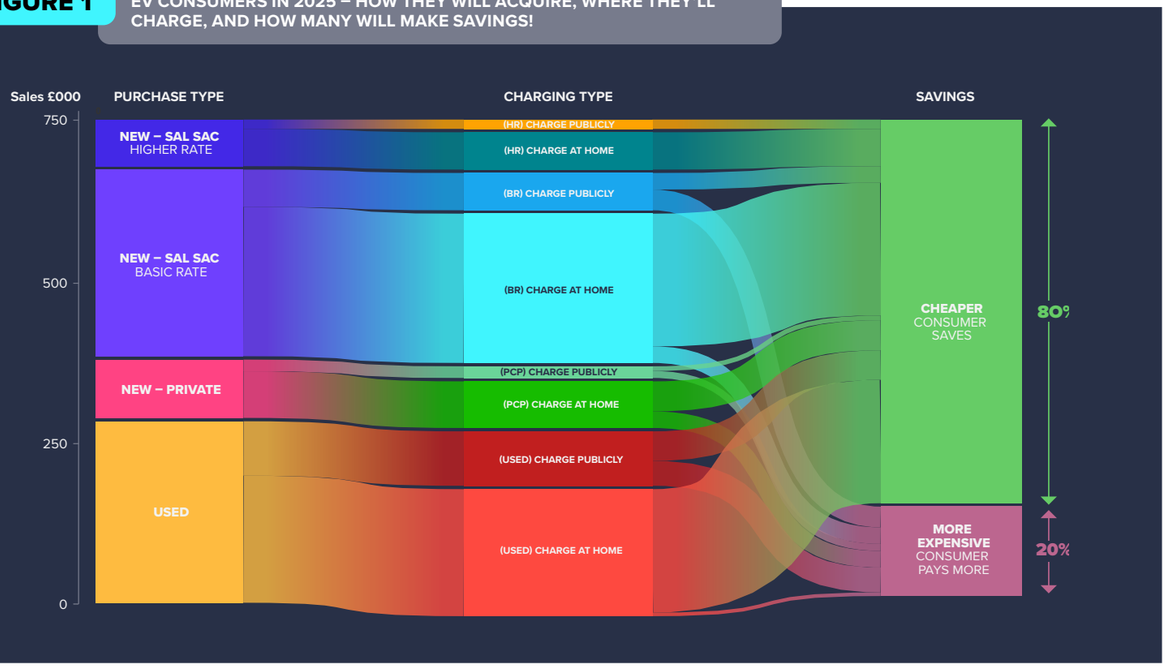
A key factor for consumers considering an EV purchase is the total cost of ownership[2], the combined cost of buying, charging, insuring, servicing, taxing, and ultimately returning or reselling the vehicle.

To estimate the proportion of EV buyers in 2025 who will save money compared to those purchasing an internal combustion engine (ICE) vehicle, we used the following projections:

- 500,000 new battery EV purchases this year (aligned with SMMT estimates)
- 250,000 used EV purchases, following similar growth trends from previous years
- New EV purchases split 80:20 between salary sacrifice and private sales, consistent with last year's data
- Salary sacrifice buyers split 80:20 between basic-rate and higher-rate taxpayers
- 80% of new EV buyers will have home charging access, with 20% relying on public charging, a slight increase from previous years
- Used EV buyers split 70:30 between those with home charging and those relying on the public network, reflecting the broader car ownership population

These proportions were then applied to our analysis of the most popular new and used vehicles, considering different ownership models (salary sacrifice, PCP, and leasing), charging methods (home vs. public), and a range of annual mileages.

FIGURE 1 EV CONSUMERS IN 2025 – HOW THEY WILL ACQUIRE, WHERE THEY'LL CHARGE, AND HOW MANY WILL MAKE SAVINGS!



How MUCH will consumers save driving an EV?

For those who **do save**, the average saving across all scenarios we reviewed is approximately **£5,850** over the ownership period.

- **Used EVs**: £3,440 saved over **five years (£690 per year**)
- **New EVs**: £7,785 saved over the lease or PCP term (**more than £2,000 per year**)

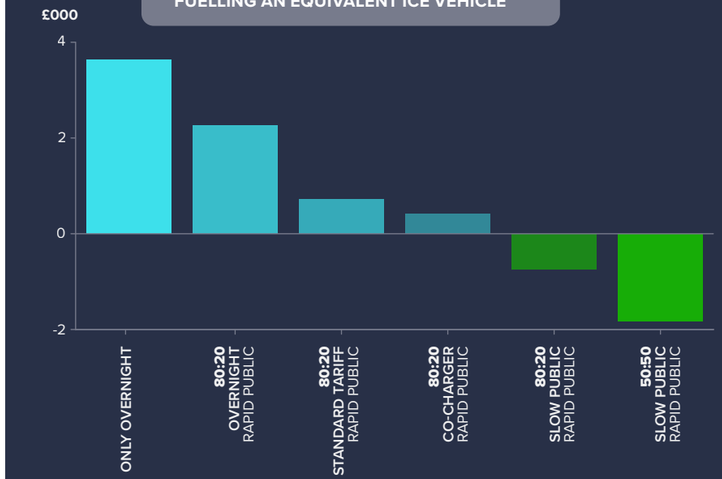
Savings are **higher** for consumers who can **charge at home**. However, even those **without home charging** can still **save compared to an ICE vehicle** by using a **community charging service** such as Co Charger.

Many consumers who rely on **public charging** can still **save money** with an electric car, despite the higher cost of charging compared to refuelling an equivalent ICE vehicle. This is largely due to savings from **salary sacrifice schemes** and, in the **used car market**, the **lower upfront cost** of the vehicle.

Who is less likely to benefit?

However, for a minority of consumers, the higher cost of public charging makes switching to an EV less economically advantageous. This highlights a key area for improvement across the industry. Ultimately, access to home charging is the most significant factor in determining whether and how much a consumer will save by switching to electric.

FIGURE 2 AVERAGE SAVINGS OVER THE TERM[3] ON 7,700 ANNUAL MILEAGE ACROSS ALL NEW AND USED EVS WHEN CHARGING VS FUELLING AN EQUIVALENT ICE VEHICLE



Average savings/costs across 15 new EV models and 3 ownership types + 35 used EV models, compared with ICE equivalent.

500,000
FORECAST OF NEW BEV SALES IN UK IN 2025

250,000
FORECAST OF USED BEV SALES IN UK IN 2025

The most expensive scenario only applies to around 1 in 10 EV drivers*

* However, as the percentage of EV drivers that need to rapid charge on a regular basis likely increases, this highlights the need for Government and industry to provide solutions in this critical area.

1. Generally, 4 years for a personal contract purchase or salary sacrifice or 5 years for a used vehicle. 2 makers - Cupra and VW - do not offer their EVs on 4-year PCP arrangements. For these we applied a 3-year term.
2. Many consumers are equally interested in the immediate upfront savings of switching to an EV rather than the prospect of future savings. We cover this for used vehicles below, but when we consider new cars, upfront price parity can be misleading. For our study every vehicle bought on salary sacrifice was cheaper upfront because our data provider, Octopus EV, does not charge initial rental fees and bundles a home charger (or 4,000 miles of free charging) with its package. Meanwhile, every PCP arrangement was more expensive because in most cases (except Audi and Volvo) they need to pay for a home charger upfront to benefit from cheap overnight charging. Therefore, we decided it was more meaningful to show the saving over the term.
3. See footnote 1 for the term. The saving on a standard tariff assumes the consumer has still installed a home charger, rather than charging via a 3-pin plug.

COST OF OWNERSHIP ANALYSIS

CHARGING COST COMPARISON

Savings by EV charging method

In 90% of scenarios, consumers with home charging access will save money by switching to an EV.

The chart shows the distribution of cash savings across all the scenarios analysed:

15 new, 35 used, and different ownership models for new cars, along with 3 different mileages. It compares drivers who **charge mostly at home** with those who rely solely on **public chargers**.

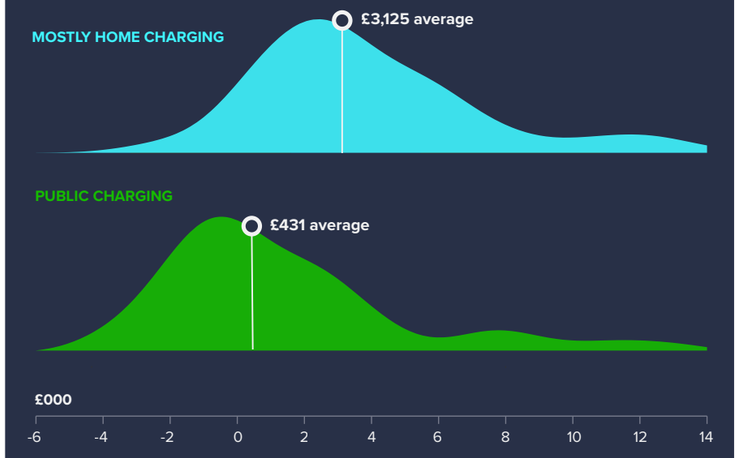
There is a broad spread of outcomes, but consumers who **charge mostly at home** are far more likely to save money with an EV compared to an ICE vehicle. Only a small proportion of outcomes, fewer than 10%, result in the consumer paying more.

For drivers **without home charging access**, the median outcome still results in a **saving of £430**. However, there is a 42% chance that they will end up paying more over the term of the car.

Savings by EV mileage with and without a home charger

It is a myth to suggest that switching to an EV only makes sense for high-mileage drivers, where the lower cost of charging offsets the higher upfront cost of the vehicle. As later sections show, the cost of EVs has decreased enough that driving electric makes sense, regardless of mileage*.

FIGURE 3 THE LIKELIHOOD AND AMOUNT OF SAVINGS FOR HOME AND PUBLIC CHARGING ACROSS ALL MILEAGE, FOR NEW AND USED EV TYPES



Data for 15 new EV models and 3 different ownership types + 35 used EV models, compared with ICE equivalents, each at 3 different mileages.

The cost of EVs has decreased enough that driving electric makes sense, regardless of mileage.*

* While the most comprehensive of its type, the 'Cost of Driving Electric' report is not the first study on this topic. A recent report (February 2025) by Andersen EV also demonstrated that there is "a pronounced difference in the cost to own and run an electric car versus an equivalent petrol-powered model. The overall cost of running an electric vehicle (EV) is now £1,154 per annum, which is 50.2% less than the £2,316 equivalent cost to run a conventional petrol-driven car over the same period*. Andersen calculated the overall ownership cost for an EV and petrol-powered car by assessing the latest road tax charges, average fuel / recharge costs, typical servicing costs, and average insurance premiums and unveiled that combustion engine owners are spending 50% more than EV drivers."

JOLT

All the talk is about either charging at home,

or high-powered charging on major roads, but the real opportunity lies in the 'messy middle' – the urban and suburban spaces where people live, work, and spend time.

From high streets to shopping areas and transport hubs, plugging this gap will make EV charging more visible, accessible, and affordable. JOLT's unique model brings free, fast, and convenient charging to these everyday locations, creating a win-win for drivers, businesses, and cities alike.

JOLT

JOLT is transforming public EV charging by making it more accessible and affordable, particularly for urban drivers without off-street parking. Its unique advertising-funded model offers free and low-cost fast charging, significantly reducing the high cost of on-street charging and accelerating EV adoption.

Already operating in Australia, Canada, and New Zealand, JOLT launched in London, UK in October 2023, where demand for cost-effective charging is high. Its strategically placed 25kW DC fast chargers, powered by 100% renewable energy, integrate seamlessly into high-footfall urban areas, supporting local businesses and reducing unnecessary travel.

All EV drivers receive 7kWh of free charging daily – enough for 30 miles – with additional charging at just 35p/kWh, the UK's most affordable public rate. This ensures drivers who rely on public charging aren't penalized with excessive costs.

JOLT's model also benefits cities, providing local authorities with income from day one, supporting the transition to cleaner transport without government funding. As the UK moves toward zero-emission targets, JOLT is working with policymakers, councils, and industry to expand its network and improve accessibility – ensuring EV ownership is practical and affordable for all.

30 MILES OF CHARGE IN JUST 15 MINUTES

7KW OF FREE CHARGING DAILY

joltcharge.com

COST OF OWNERSHIP ANALYSIS

IMPACT ON SAVINGS FROM ADDITIONAL COSTS

The impact on savings with the 'Expensive Car Supplement'

From 1 April 2025, drivers of electric vehicles will need to pay Vehicle Excise Duty (VED) Road Tax for the first time. Another consideration is the planned extension of the **Expensive Car Supplement to EVs** from April 2025. This will apply to new vehicles with a recommended retail price above £40,000, and will be payable at an annual rate of £410 from years 2 to 6.

This policy risks inadvertently making some internal combustion engine (ICE) vehicles more attractive at a time when Ministers are trying to increase demand for electric vehicles. Currently, we estimate that any driver choosing an ID.4 over a Tiguan will save by choosing the electric car. However, the ID.4 Match Pro, which retails for £42,000–£45,000, falls into the range subject to the Expensive Car Supplement.

When the Expensive Car Supplement (ECS) is introduced, buyers of the ID.4 will face 5 years of an additional £410 per year charge. While they will still save money if they can charge at home, the savings will be reduced by 30–50%. For buyers reliant on public charging, it may be financially better to retain the Tiguan.

FIGURE 4 SAVINGS COMPARISON FOR A 2-YEAR-OLD VW ID.4 VS VW TIGUAN ACROSS VARIOUS DRIVING AND CHARGING SCENARIOS, BEFORE AND AFTER THE INTRODUCTION OF THE EXPENSIVE CAR SUPPLEMENT ON EVS

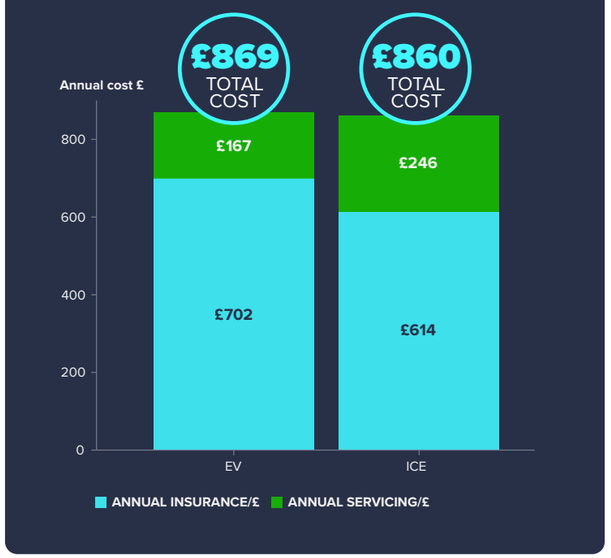
THERE ARE MANY MORE BEV MODELS BELOW THE £40,000 THRESHOLD

The impact on savings with insurance & servicing costs

Reports of insurance being more expensive for EVs are often overplayed. The chart shows the insurance groups, set by the Association of British Insurers and used by insurers to determine premiums for the EVs in our study and their ICE counterparts. While EVs tend to be placed in slightly higher groups than their ICE equivalents, the impact on the overall cost of insurance is minimal.

FIGURE 5 ABI INSURANCE GROUP (1-50) FOR THE 30 UNIQUE EV MODELS AND THEIR ICE EQUIVALENTS IN THIS STUDY

FIGURE 6 AVERAGE ANNUAL INSURANCE AND SERVICING COSTS FOR THE 30 UNIQUE EV MODELS AND ICE EQUIVALENTS IN THIS STUDY



THERE ARE NOW MORE THAN 100 BEV MODELS OF ALL SHAPES AND SIZES

COST OF PURCHASING ANALYSIS

USED EV MARKET SAVINGS

In the used market, upfront price parity has already been achieved. Across all age ranges, 80% of EVs are now cheaper upfront than their petrol counterparts.

A BMW I3 CAN NOW BE PURCHASED USED FOR LESS THAN £10,000

A USED TESLA MODEL 3 CAN NOW BE PURCHASED FOR LESS THAN £15,000

Used EV savings by age

2 to 3 year-old cars

Among used vehicles registered in 2022 or 2023, **12 out of the 15** most popular EVs are **priced lower** than their ICE equivalents*. The only exceptions are the Kia Niro EV, the MG4 and the BMW i4.

4-6 year old cars

For vehicles registered between 2019 and 2021, the trend is similar – 8 out of 10 of the most popular battery electric cars from this period are more affordable than their petrol counterparts. The only exceptions are the Tesla Model 3 and as with 2-3 year old cars, the Kia Niro.

6-8 year old cars

Finally, looking at the oldest EVs available in large numbers on the used market, we examined the most popular models from 2017 to 2019. Once again, **8 out of 10** EVs are priced lower upfront than their petrol equivalents. The only exceptions which retail for slightly more are the Tesla Model 3 and the Hyundai Kona.

FIGURE 7 UP FRONT SAVINGS ON USED EV VS ICE EQUIVALENT – 2-3 YEARS OLD

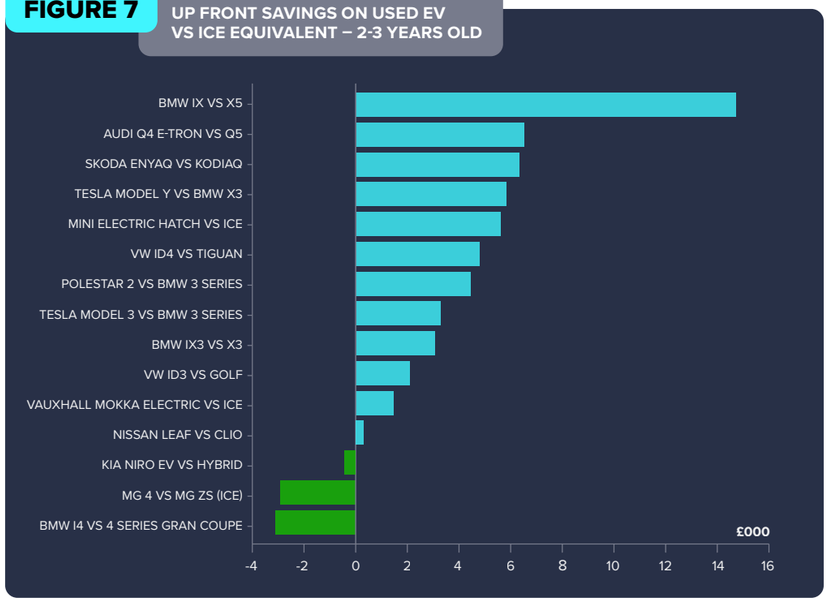


FIGURE 8 UP FRONT SAVINGS ON USED EV VS ICE EQUIVALENT – 4-6 YEARS OLD

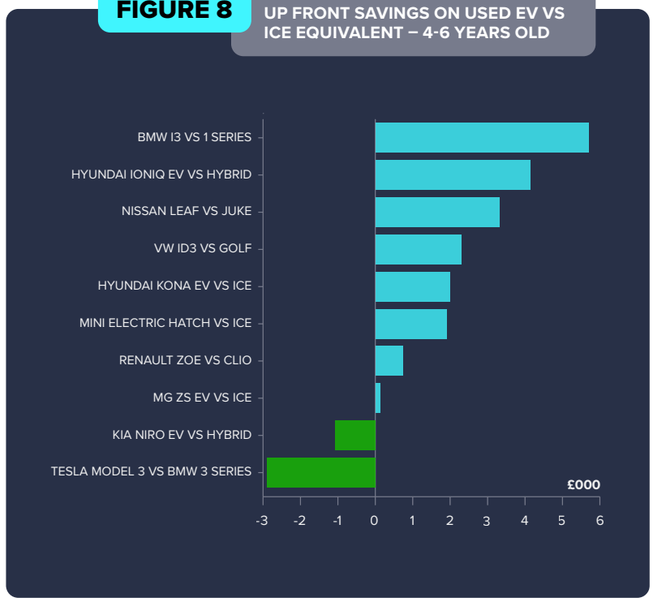
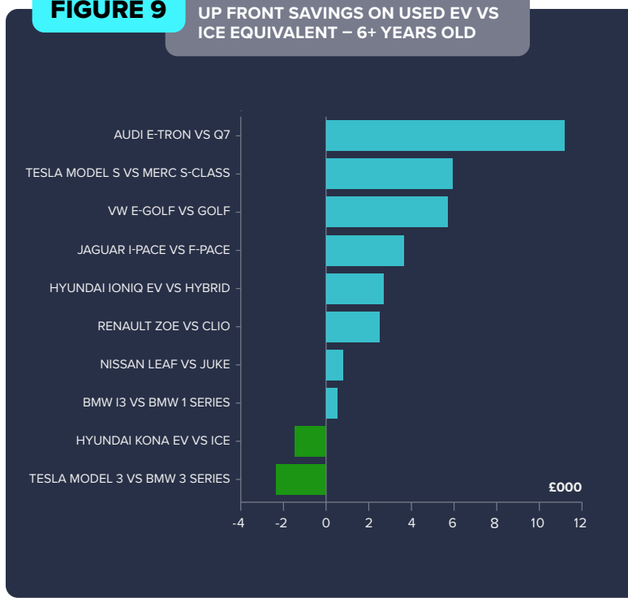


FIGURE 9 UP FRONT SAVINGS ON USED EV VS ICE EQUIVALENT – 6+ YEARS OLD



NISSAN'S MK 2 LEAF IS AN ATTRACTIVE USED OPTION

In 2024, demand continued to soar for used battery electric cars (BEVs), rising some 57.4% to a record 188,382 units and achieving a new high for market share.

* While the most comprehensive of its type, the 'Cost of Driving Electric' report is not the first study on this topic. A recent report from CarGurus, found that "used combustion engine models are on average £2,560 more expensive than equivalent electric models of the same age and mileage from the same manufacturer - a difference of 10 per cent." In addition CarGurus explored the typical mileage of models listed on the platform and found that "on average, EVs had 18 per cent fewer miles (equating to 3,252 miles) than the comparable ICE models, further adding to their appeal."

COST OF PURCHASING ANALYSIS

USED EV MARKET SAVINGS

Savings on USED EVs when charging at home

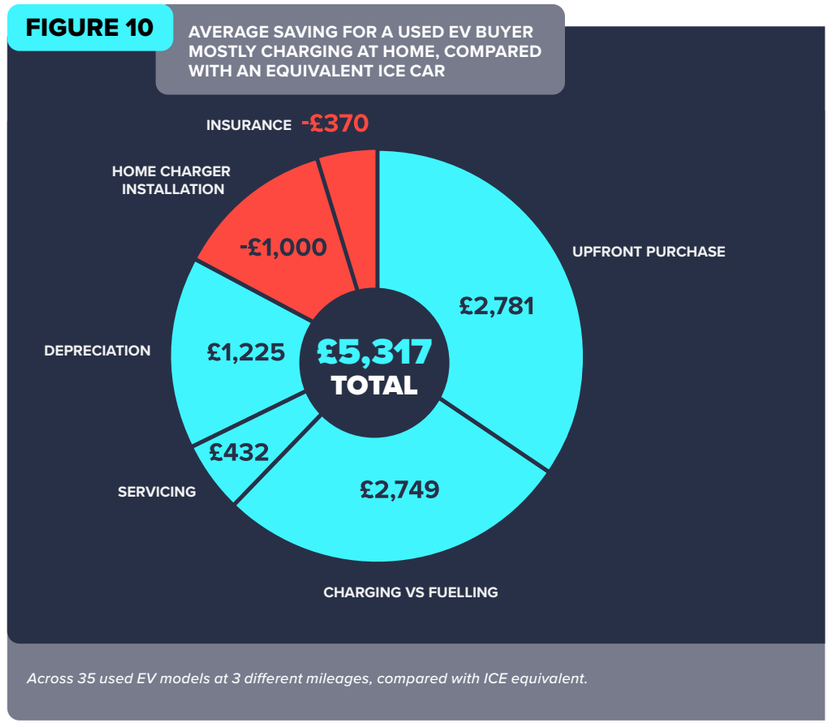
For those who primarily charge at home, any higher upfront costs, where they exist, are offset by lower charging costs. Across the 105 scenarios we analysed, driving an EV was more expensive over a five-year period in only 3% of cases.

For higher mileages, which apply to 70% of drivers, switching to an EV is always the more cost-effective choice when purchasing the most popular used models.

The chart below illustrates the breakdown of the average total savings over five years for EV buyers. The average saving over this period is £5,317.

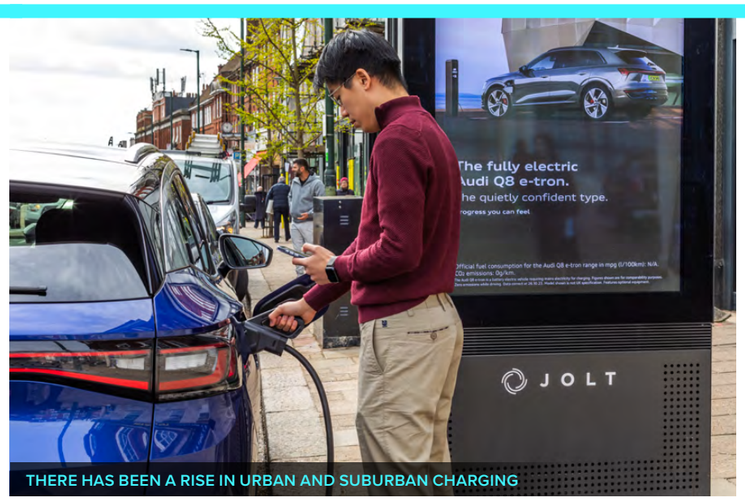
£5,137
TOTAL SAVING ON OWNERSHIP

FIGURE 10 AVERAGE SAVING FOR A USED EV BUYER MOSTLY CHARGING AT HOME, COMPARED WITH AN EQUIVALENT ICE CAR



Across 35 used EV models at 3 different mileages, compared with ICE equivalent.


A TYPICAL HOME CHARGING UNIT



THERE HAS BEEN A RISE IN URBAN AND SUBURBAN CHARGING

£3,573
SAVINGS AT 5000 MILES

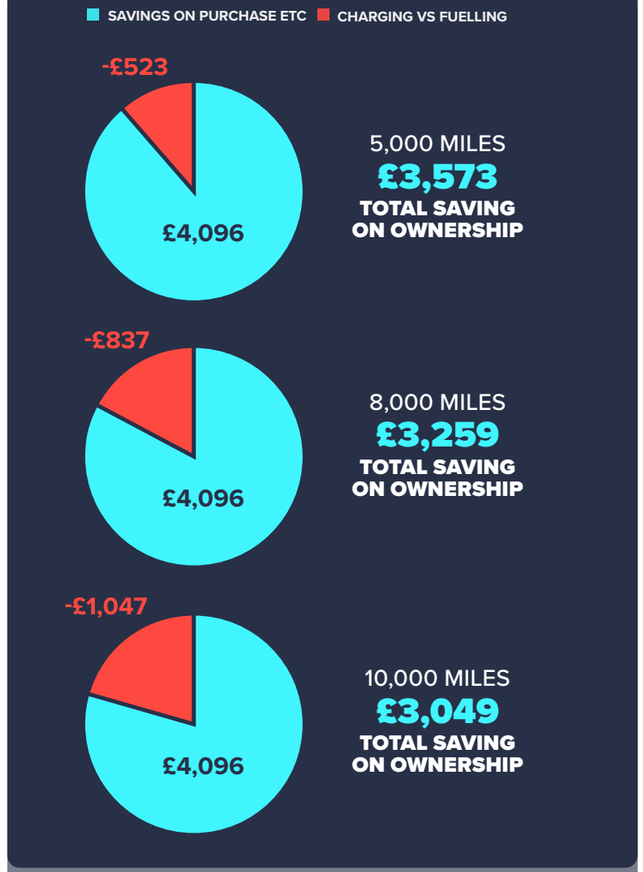
Savings on USED EVs when charging publicly

For those relying on public charging, the savings are lower. Unlike home charging, where savings increase with mileage, the higher cost of public charging means that for used EVs, the financial benefits diminish as mileage rises.

However, even high-mileage drivers will still save money on average when using public charging, but these savings come from a smaller pool of vehicles. At 5,000 miles per year, more than 60% of EVs remain more affordable over a five-year term than their ICE counterparts. However, at 10,000 miles per year, this figure drops to just 46%.

For higher-mileage drivers who rely on the public network, certain EVs stand out due to their efficiency, making them cheaper to charge, even on public networks, than their petrol equivalents are to fuel.

FIGURE 11 AVERAGE SAVINGS FOR A USED EV BUYER CHARGING PUBLICLY VS ICE CAR AT THREE MILEAGE LEVELS



Average saving across 35 used EV models at 3 different mileages, compared with ICE equivalent.

COST OF PURCHASING ANALYSIS

NEW EV MARKET SAVINGS

Salary sacrifice scheme BASIC

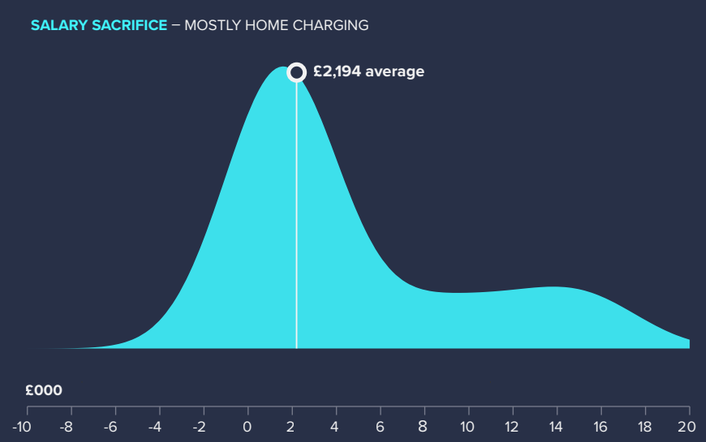
Buying an EV through **salary sacrifice will almost always save money** compared to a petrol car, when mostly charging at home.

The graph shows the median saving for a **basic rate** taxpayer leasing through a **salary sacrifice** arrangement is £2,194 over the typical four-year term.

There is a 25% chance that a vehicle buyer in these scenarios will save less than £1,113, and a 25% chance they will save more than £7,174.

In fact, out of the 45 scenarios we examined, only five (11% of the total) show no savings for the EV buyer. The majority of these non-saving scenarios relate to low-mileage situations (we used 5,000 miles per year, savings would be further reduced with even lower mileage).

FIGURE 12 THE LIKELIHOOD AND LEVEL OF TOTAL SAVINGS FOR DRIVERS BUYING EVS ON BASIC RATE SALARY SACRIFICE AND MOSTLY CHARGING AT HOME



Data for 15 different new EV models at 3 different mileages, compared with equivalent ICE vehicle.

£2,194
AVERAGE SAVING THROUGH SALARY SACRIFICE

Salary sacrifice scheme HIGHER

For higher-rate taxpayers, the terms of **salary sacrifice** are so favourable that you will **save even if you are completely reliant on the public charging network**.

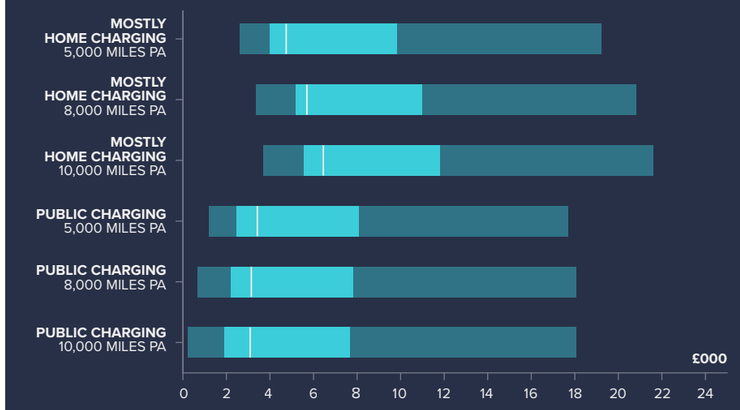
An average driver travelling **5,000 miles** a year and mostly **charging at home** would save **£4,750** over the duration of their lease. This saving **increases to £5,700** for a driver covering **8,000 miles** a year and **£6,450** for a driver covering **10,000 miles** a year.

For a driver reliant on public charging, the savings are lower and decrease with increased mileage due to the higher cost of public charging. The median savings for a driver on 5,000, 8,000, and 10,000 miles a year are **£3,420, £3,140, and £3,090**, respectively.

Any savings a driver can make by reducing public charging costs, such as through a cheaper charging provider like JOLT, will further increase savings. Additionally, providing access to a home charger will offer further savings.

> SEE FOR CHEAPER ALTERNATIVE CHARGING OPTIONS P11

FIGURE 13 THE LIKELIHOOD AND LEVEL OF TOTAL SAVINGS FOR DRIVERS BUYING EVS ON HIGHER RATE SALARY SACRIFICE – MOSTLY CHARGING AT HOME VS. PUBLIC CHARGING, AT ANNUAL MILEAGES OF 5K, 8K, AND 10K



The graph above presents data for 15 different new EV models, compared with ICE equivalent.

There is no higher rate sal sac scenario in which driving an EV costs more than the equivalent ICE car.

SAVE UP TO £5,700
CHARGING AT HOME AT 8000 MILES

COST OF PURCHASING ANALYSIS

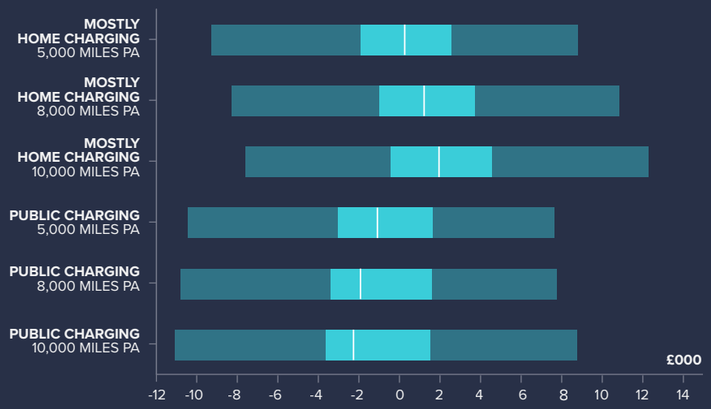
NEW EV MARKET SAVINGS

Personal Contract Purchase (PCP)

In contrast, for consumers buying on PCP, the decision is more finely balanced. In general, it will often make sense to switch to an EV if you can charge at home. However, it is less likely to be in your best interest to buy an EV on PCP if you can't charge at home.

For buyers who are able to charge at home, they will **save by buying an EV** just over 50% of the time **at 5,000 annual miles**, rising to almost **75% at 10,000 annual miles**. In contrast, drivers reliant on public charging will save by driving electric in less than 50% of the vehicles in our study, regardless of their mileage. Switching to an EV becomes less attractive as your annual mileage increases.

FIGURE 14 THE LIKELIHOOD AND LEVEL OF TOTAL SAVINGS FOR PCP EV BUYERS, USING MOSTLY HOME CHARGING VS. PUBLIC CHARGING, AT ANNUAL MILEAGES OF 5K, 8K, AND 10K



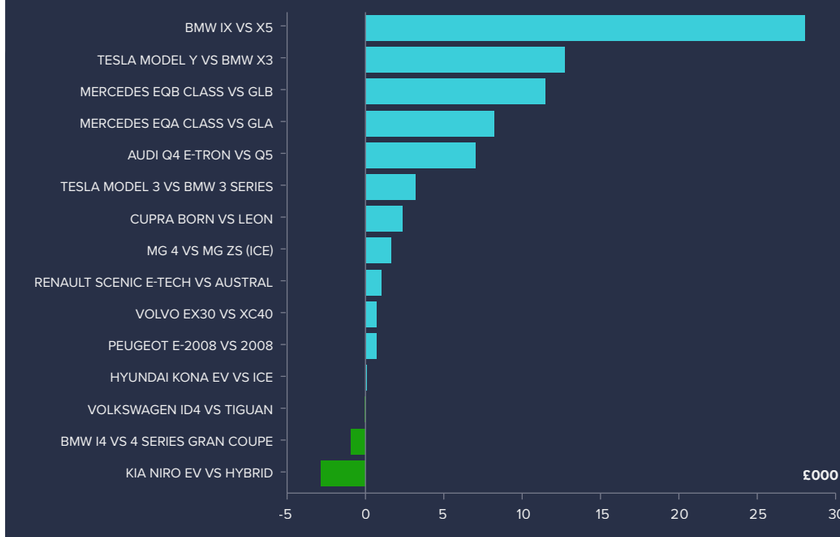
Data is presented for 15 different new EV models, compared with ICE equivalent.

Savings by model of EV

On average, 12 out of 15 models studied will deliver savings.

The graph shows average savings across three different ownership types (salary sacrifice leasing at basic and higher rates, as well as PCP), both public and home charging, and three different mileages.

FIGURE 15 AVERAGE TOTAL SAVINGS ACROSS ALL OWNERSHIP AND CHARGING TYPES FOR NEW EVS VS. ICE EQUIVALENTS



Average total saving for each EV model across 3 different ownership types and 3 annual mileages, compared with ICE equivalent.

CONCLUSION & RECOMMENDATIONS

The 'Cost of Driving Electric' represents emphatic confirmation that driving electric is much cheaper than the public's perception of it, and that it is cheaper for 80% of consumers.

Additionally, it demonstrates that on 8 out of 10 occasions, used battery EVs are cheaper than their combustion counterparts. Meanwhile, new battery EVs are increasingly affordable – especially when end-users can access them via the Salary Sacrifice Scheme – and enable access to significant savings over total cost of ownership.

What's more, smaller and more affordable models of battery EVs are now coming onto the market, increasing competition and in turn feeding the all important used market. Couple this with consistent feedback that battery EVs benefit from high customer satisfaction scores, and that more than 9 out of 10 will not revert to combustion-powered cars, the direction of travel is clear. In fact, the cost advantage, while it does not apply to all, is a powerful persuasion tool, and the industry must ensure that the public is aware of that.*

More than **97%** of drivers with access to a salary sacrifice scheme will save money, as will **90%** of used car buyers. Even for private PCP buyers, the group with the most finely balanced economics, 50-75% will still save money depending on mileage.

For consumers reliant on public charging, however, the situation is different. For most of the vehicles we examined, it is currently cheaper to refuel the petrol equivalent than to charge an EV at public network rates. The savings on ownership and servicing costs are not always enough to offset the higher running costs of public charging.

Ironically, among consumers without home charging, the lowest-mileage drivers are the most likely to benefit financially from switching to an EV. This dynamic risks undermining the Government's decarbonisation goals for the 30% of drivers without off-street parking.

We urge the government to take a two-pronged approach:

1. **Maintain a strong ZEV mandate** to continue driving down new EV prices in the UK.
2. **Expand the range of consumers incentivised to switch** by lowering public charging costs and making home charging more accessible.

***The ZEV mandate is working** in both the new and used EV markets, there are very few cases where consumers with access to home charging would be better off driving an ICE vehicle.*

* There are numerous reports that demonstrate that battery EV driver satisfaction is high, and that typically 9 out of 10 owners show no interest in returning to the internal combustion engine powered cars (ICE). Zapmap's most recent annual survey (December 2024) received more than 3,700 responses and showed that "fewer than 3 percent of EV drivers expressed interest in switching back to ICE cars. Drivers gave their EVs an average satisfaction score of 87 out of 100, with 78% highlighting their cost-effectiveness."

1 Maintain the ZEV Mandate

It isn't clear that the ZEV mandate needs reform. Existing flexibilities allow manufacturers to lower EV targets to 18% by exceeding CO_2 targets for petrol, diesel, and hybrid sales. The industry has already exceeded the 2024 targets and has exceeded 2025 targets over the past 6 months.

Ultimately, concerns about switching to EVs will be resolved by the growing ubiquity of the technology, drivers will trust their own experiences and savings, more than any misinformation they encounter. The current level of EV discounting is not excessive and remains lower than the total discounts historically applied to petrol and diesel vehicles. The Government must hold its nerve and resist calls to dilute the regulations.

BATTERY EV RANGES HAVE INCREASED SIGNIFICANTLY

2 Expand Incentives to More Consumers

The most effective way to grow demand is by increasing the number of consumers who benefit from switching by 50%. Right now, unless you can charge at home or are a higher-rate taxpayer with access to a salary sacrifice scheme, the financial case for switching is less clear cut. With the right vehicle, lower mileage, or access to a community charging service like Co Charger, you might save money.

Government action to **expand home charging access** and **reduce public charging costs*** can help the EV transition reach the 30% of consumers without a driveway. These measures would be far more tax-efficient and cost-effective than a VAT cut on new EVs.

Making Home Charging More Accessible and Reducing the Cost of Public Charging are of critical importance to accelerating uptake.

Making Home Charging More Accessible

To enable more consumers to charge at home, the Government should:

- Restore the Electric Vehicle Charge Point Grant for homeowners buying used EVs (~£35m/year cost to the tax payer). This would also encourage smart charging, boost grid resilience, and discourage unsafe reliance on three-pin plug charging.
- Expand permitted development rights for home charge point installations (zero cost).
- Simplify regulations for installing cross-pavement charging solutions, such as gullies, as agreed for charge point operators (zero cost).
- Support production and standardise cross-pavement licensing agreements for local authorities to speed up approvals (zero cost).
- Introduce a "Right to Plug" policy for the 10-15% of residents in multi-occupancy buildings with shared parking. The UK currently has the weakest consumer legislation provision among the six largest European markets (zero cost).

Reducing the Cost of Public Charging (at No Cost to Taxpayers)

To make public charging more affordable, the Government and regulators should:

- **Restructure standing charges** to reduce the disproportionate impact on public charging costs in a fiscally neutral way.
- **Reduce VAT on public charging to 5%**. This could be funded by correcting the tax anomaly that allows pre-2017 polluting vehicles to pay lower VED rates than newer, cleaner cars.
- **Redirect the Renewable Transport Fuel Obligation (RTFO)** away from legacy biofuels in petrol and diesel to support renewable electricity in charge point provision. Research by Transport & Environment suggests this could cut public charging costs by up to 50%.
- Encourage innovative commercial solutions that make charging more affordable and plug the gap between home charging and high-powered hubs. Expand 7kW and 22kW AC options, as well as introducing more innovative speeds like 25kW DC charging. Models like advertising-subsidised charging (see JOLT profile on p11) can help drive accessibility and affordability..

These steps will ensure that the transition to electric vehicles benefits a broader range of consumers, supporting both affordability and the UK's net-zero goals.

* As used and new electric cars become significantly more affordable, and often cheaper than their combustion counterparts, it is the "high cost of public charging" that threatens to become the biggest barrier to adoption, as highlighted by EVA England. With no experience of driving electric, a non-EV driver's perception of how much mileage they do, how often they charge, and specifically how often they charge away from home are likely to be significantly overestimated. This means that the perception of high charging costs away from home, while a very small percentage of the real-world experience, is disproportionately influencing prospective EV drivers. EVA England, an organisation that represents drivers recently released a report (February 2025) that indicated that "3 out of 4 drivers believe the high cost of public charging is the most significant barrier to wider uptake of electric vehicles."

APPENDICES

Appendix 1 *New Electric Vehicles*

EV	ICE
Audi Q4 e-Tron 45 S Line	Audi Q5 2.0 TFSI Quattro Sport 5dr S Tronic
BMW i4 eDrive35 M Sport	BMW 4 Series Gran Coupe 420i M Sport
BMW iX xDrive 40 M Sport Auto	BMW X5 M60i xDrive
Cupra Born V1 58kWh	Cupra Leon 1.5 TSI 150 V1
Hyundai Kona Electric Advance 65kWh	Hyundai Kona 1.0T 100 Advance
Kia Niro EV2 NAV	Kia Niro 1.6 GDI Hybrid 2
Mercedes EQA Class 250+ Sport Executive	Mercedes GLA 200 Sport Executive
Mercedes EQB Class 250+ AMG Line Executive	Mercedes GLB 200 AMG Line Executive
MG 4 SE Long Range	MG ZS 1.5 VTi-TECH Exclusive
Peugeot e-2008 Allure 50kWh	Peugeot 2008 1.2 PureTech 130 Allure 5dr
Renault Scenic E-Tech Esprit Alpine Long Range	Renault Austral E-Tech Hybrid Iconic Esprit Alpine
Tesla Model 3 RWD	BMW 3 Series Saloon 320i M Sport
Tesla Model Y Long Range RWD	BMW X3 xDrive20 M Sport Step Auto
Volkswagen iD4 Match Pro	VW Tiguan 1.5 TSI
Volvo EX30 Single Motor Plus	Volvo XC40 2.0 B3P Core Auto

Used Electric Vehicles

AGE / YEARS	EV	ICE	TOTAL MILEAGE
2-3	Audi Q4 E-Tron 35 S-line	Audi Q5 S-line 2.0 TFSI	10-20K
2-3	BMW i4 eDrive35 M Sport 70kWh	BMW 4 Series Gran Coupe 420i M Sport	10-20K
2-3	BMW iX xDrive 40 Sport Edition	BMW X5 M60i	10-20K
2-3	BMW iX3 M Sport 80kWh	BMW X3 20i M Sport	10-20K
2-3	Kia Niro Electric 2	Kia Niro Hybrid 1.6h GDI 2	20-30K
2-3	MG 4 SE LR	MG ZS VTI-Tech 1.5 litre	5-10K
2-3	Mini Electric Hatch Cooper SE 33kWh	Mini Hatchback 1.5 Cooper Classic	10-20K
2-3	Nissan Leaf 40kWh Tekna	Nissan Juke 1.0 litre DIG-T N-connecta	10-20K
2-3	Polestar 2 78kWh LR Single Motor	BMW 3 Series 320i M Sport	20-30K
2-3	Skoda Enyaq iV 60	Skoda Kodiaq 1.5 litre TSI Act	30-40K
2-3	Tesla Model 3 LR RWD	BMW 3 Series 320i M Sport	30-40K
2-3	Tesla Model Y LR	BMW X3 20i M Sport	20-30K
2-3	Vauxhall Mokka Electric Ultimate 50kWh	Vauxhall Mokka 1.2 litre Turbo 130PS Automatic	5-10K
2-3	VW iD3 Family Pro	VW Golf 1.4 litre TSI	10-20K
2-3	VW iD4 Pro Performance 77kWh Life	VW Tiguan 1.5 litre TSI	5-10K
4-6	BMW i3 S	BMW 1 Series 118i 1.5 litre	20-30K
4-6	Hyundai Ioniq Electric Premium	Hyundai Ioniq Hybrid 1.6h GDI	20-30K
4-6	Hyundai Kona Electric Premium	Hyundai Kona 1.6 litre	10-20K
4-6	Kia Niro Electric 2	Kia Niro 1.6h GDI 2	20-30K
4-6	MG ZS EV Exclusive	MG ZS VTI-Tech 1.5 litre	20-30K
4-6	Mini Electric Hatch Cooper SE 33kWh	Mini Hatchback 1.5 Cooper Classic	30-40K
4-6	Nissan Leaf 40kWh Tekna	Nissan Juke 1.0 litre DIG-T N-connecta	10-20K
4-6	Renault Zoe R135	Renault Clio TCe	30-40K
4-6	Tesla Model 3 LR RWD	BMW 3 Series 320i M Sport	30-40K
4-6	VW iD3 Family Pro	VW Golf 1.4 litre TSI	30-40K
6-8	Audi e-Tron 55 Quattro	Audi Q7 3.0litre TFSI 55 V6	40-50K
6-8	BMW i3 S	BMW 1 Series 118i 1.5 litre	40-50K
6-8	Hyundai Ioniq Electric Premium	Hyundai Ioniq Hybrid 1.6h GDI	60-80K
6-8	Hyundai Kona Electric Premium	Hyundai Kona 1.6 litre	20-40K
6-8	Jaguar I-Pace SE	Jaguar F-Pace 2.0 litre P250i	40-50K
6-8	Nissan Leaf 40kWh Tekna	Nissan Juke 1.0 litre DIG-T N-connecta	50-60K
6-8	Renault Zoe R110	Renault Clio TCe	20-30K
6-8	Tesla Model 3 LR RWD	BMW 3 Series 320i M Sport	50-60K
6-8	Tesla Model S 75D	Mercedes S Class AMG Petrol 5.5 S63	70-80K
6-8	VW e-Golf	VW Golf 1.4 litre TSI	40-50K

APPENDICES

Appendix 2 *Further notes on research methodology*

Vehicles chosen

Makes and models of battery EV chosen for each age group were generally the most popular for that period, as reported in DfT/DVLA data table VEH0171[4]. For some new vehicles, other popular models were chosen as not all vehicles were available on the Octopus EV service. Each EV was paired with an ICE vehicle counterpart – this was the most similar petrol make and model made by the same maker, with the exception of: Kia Niro and Hyundai Ioniq, where – as there is no pure petrol model – the petrol hybrid was selected; and Tesla and Polestar where the most similar model by another manufacturer was selected.

New vehicle costs

For new EVs leased via a salary sacrifice arrangement, we used the Octopus EV website. For basic rate sal sac we assumed a salary of £45K, for higher rate we assumed a salary of £80K. Octopus leases include insurance – to ensure comparability, we used an age of 42 (the average working age adult) and a postcode in central Didcot, Oxfordshire (a town scoring close to median on most key demographics). We assume employers pass back the NI savings on salary sacrifice to employees.

For new ICE leases we used the best offers available from Leasing.com. For vehicles purchased by PCP we used the manufacturer website. We chose the most basic comparable models and model variants for which we could find data on each site. We assumed 4 year contracts, except for 2 models (Cupra Born and VW iD.4) which were only available on 3 year PCP arrangements – to ensure comparability, for these we used 3 year terms for both EV and ICE counterparts, across all methods of purchase.

Used vehicle costs

Downloads from the AA website were taken w/c 6 January. To ensure a representative sample and control for any differences in mileage, a mileage range was chosen (from 5-10K, 10-20K, 21-30K, 31-40K, 41-50K, 50-60K, 60-70K and 70-80K) which captured the greatest number of battery EVs and ICE vehicle counterparts. This means that for vehicles of the same vintage some EV-ICE pairs have different mileages from others – e.g. for vehicles registered between 2017 and 2019, the most frequently found mileage range of the Tesla Model S and Mercedes S class was 70-80K, whereas for the Jaguar I-Pace and F-Pace, and the VW Golf and E-Golf, it is 40-50K.

Where this provided fewer than 10 examples at a given mileage range for either EVs or the ICE counterpart (chiefly on older vehicles), Auto Trader data was used instead. For 2 models of 6 years and older – Hyundai Kona and Hyundai Ioniq – wider mileage ranges were used to gather enough sample, of 20-40K and 60-80K respectively.

Refuelling

A refuelling price of 136.5p per litre was taken from weekly fuel price data on Gov.uk[4]. Vehicle efficiency was taken from WLTP Combined Cycle for the most popular petrol model variant of each ICE vehicle (petrol hybrid in the case of the Kia Niro and Hyundai Ioniq).

Charging

Numbers of charge points and utilisation factors were taken from Zapmap[5] data to calculate the power supplied to electric cars (other vehicle types were disregarded from this analysis). This, combined with average EV mileages taken from New AutoMotive analysis of MOT data, an 86%/14% split between current drivers with and without home charging[6] and assumed losses of 7% on slow and fast charging and 5% on rapid and ultra-rapid charging[7], were used to determine the proportions of charging which took place at home.

To disaggregate public charging usage between drivers with and without access to home charging, the two groups of drivers were assumed to travel similar mileages, with the same proportion of slow, fast and rapid/ultra-rapid charging carried out by each – the only difference being that people with access to charging at home would carry out all their slow charging there, whereas those without would do their slow charging through a combination of slow public, employer and driveway-lending services, such as Co Charger.

Prices of public charging were taken from Zapmap[8], prices of driveway-lending services were taken from Co Charger, and prices of home charging from the Octopus Intelligent Go EV tariff and (for the standard tariff) the energy price cap.

For consumers with access to home charging, this gave a split of 80-14-6 between home, rapid/ultra-rapid and fast charging. This gives a cost – including losses – of 21.4p per kWh. For consumers without access to home charging, it gave an approximate split of 41-31-14-8-6 between slow public, workplace, rapid/ultra-rapid, drive-sharing and fast public charging – a cost of 59.7p per kWh.

Mileage

Average mileages of 5,000, 8,000 and 10,000 were selected as these represent typical mileages used for leasing and PCP arrangement. The average of these figures, 7,667 is close to the mean pre-pandemic mileage[9], which we anticipate future year mileage to converge on. At that time, 10,000 miles was the annual mileage of the 25th percentile, 8,000 the mileage of the 40th percentile and 5,000 miles the mileage of the 70th percentile[10].

Insurance

The insurance group of the most popular model variant was taken from Parkers[11] and matched against the average cost of insurance quoted by MoneySupermarket for vehicles in that range of groups[12].

Servicing

Servicing costs of battery EVs were provided by Cleevely Electric Vehicles. Servicing costs of ICE vehicles were taken from Kwik Fit[13].

Depreciation

Auto Trader's respective depreciation rates for ICE vehicles and EVs were used for the first 5 years of ownership[14]. These show similar rates of depreciation by fuel type for years 4 and 5. Consequently depreciation rates were extrapolated for later years of ownership using the industry rule of thumb of 15% per year.

4. Gov.uk **Weekly road fuel prices**

5. Zapmap. **EV Charging Statistics 2025**. Green Finance Institute. **Demystifying utilisation update**
6. Zenith. **The 2024 EVXperience report**.
7. E Apostolaki-Iosifidou, P Codani, W Kempton. **Measurement of power loss during electric vehicle charging and discharging**
8. Zapmap. **Zapmap price index**
9. Gov.uk. **Annual mileage of cars by ownership, fuel type and trip purpose: England** (NTS0901)
10. Gov.uk. **Annual mileage band of cars: England, 2002 onwards** (NTS0904)
11. Parkers. **Car insurance groups, costs & advice**
12. Money Supermarket. **Car Insurance Group Checker**
13. Kwik Fit. **Service pricing**.
14. Auto Trader. **The road to 2035**.

GLOSSARY

Cost of Driving Electric

Battery Electric Vehicle (BEV)

A vehicle powered solely by an electric battery, without an internal combustion engine. BEVs produce zero tailpipe emissions and rely entirely on electricity for propulsion.

Co Charger

A community charging platform that enables individuals with private home EV chargers to rent them out to neighbours who lack home charging access, fostering greater EV adoption.

Community Charging

A system where EV owners without private charging can access nearby residential chargers, often through services like Co Charger.

Depreciation

The decline in a vehicle's value over time due to factors like age, mileage, market demand, and wear and tear. It's a key component of Total Cost of Ownership (TCO).

Driveway Charging

Charging an EV using a private home charge point, typically offering the lowest per-kWh rates and the most convenient access.

Electric Vehicle (EV)

A broad term for vehicles powered wholly or partially by electricity. Includes Battery Electric Vehicles (BEVs), Plug-in Hybrid Electric Vehicles (PHEVs), and Fuel Cell Electric Vehicles (FCEVs).

Expensive Car Supplement

An annual Vehicle Excise Duty (VED) surcharge applied to cars with an RRP above £40,000. As of April 2025, this will also apply to EVs.

Fast Charging

Public EV chargers that typically offer charging speeds between 7kW and 22kW, suitable for longer stops like shopping trips.

Fuel Economy

A measure of how efficiently a petrol or diesel vehicle uses fuel, usually expressed in miles per gallon (MPG) or liters per 100 kilometers (L/100km).

Home Charging

Charging an EV at a residential property using a dedicated wall box.

Internal Combustion Engine (ICE) Vehicle

A vehicle powered by petrol or diesel that burns fuel inside an engine to create motion. ICE vehicles emit carbon dioxide and other pollutants.

JOLT

A thought-leading charging organisation with the mission "to make Electric Transport more accessible to UK drivers through zero cost, fast charging."

Kilowatt (kW)

A unit of power used to describe the rate at which electricity is used or produced. EV chargers are typically rated in kW, indicating how quickly they can charge a vehicle.

Kilowatt-Hour (kWh)

A unit of energy used to measure battery capacity in EVs and the amount of electricity consumed. A higher kWh indicates a longer driving range.

Leasing

A car financing option where a driver rents a vehicle for a fixed term, paying monthly fees without ownership. Leasing can include maintenance and insurance depending on the agreement.

Mileage

The distance a vehicle travels, typically measured in miles or kilometers per year. Mileage affects depreciation, servicing needs, and overall vehicle costs.

Net-Zero Emissions

A target where the total amount of greenhouse gases emitted is balanced by the amount removed from the atmosphere. EV adoption is a major strategy in achieving net-zero goals.

Octopus Intelligent Go EV Tariff

A time-of-use electricity tariff from Octopus Energy, designed to offer cheaper rates for EV owners charging their cars overnight.

Personal Contract Purchase (PCP)

A flexible car finance option where consumers make monthly payments over a set term and have the option to buy the car outright, return it, or trade it in at the end.

Plug-in Hybrid Electric Vehicle (PHEV)

A vehicle with both an internal combustion engine and a battery that can be charged externally. PHEVs can drive short distances on electricity before switching to petrol or diesel.

Public Charging Network

A network of EV charging stations accessible to the public, including slow, fast, rapid, and ultra-rapid chargers located in cities, parking lots, service stations, and along highways.

Rapid Charging

Public chargers that typically offer speeds of 50kW to 150kW, allowing EVs to charge significantly faster than standard public chargers, usually reaching 80% battery in less than an hour, sometimes faster.

Renewable Transport Fuel Obligation (RTFO)

A UK government policy aimed at increasing the use of renewable fuels in the transport sector. The report suggests refocusing this obligation toward supporting renewable electricity for EV charging.

Salary Sacrifice

A scheme allowing employees to lease an EV using pre-tax income, leading to income tax and National Insurance savings. This makes EVs more affordable, especially for higher-rate taxpayers.

Slow Charging

A low-speed EV charging option, typically rated at 3-6kW, often using standard household outlets. Suitable for overnight charging but not ideal for regular use due to safety concerns.

Total Cost of Ownership (TCO)

The complete cost of owning and operating a vehicle, including purchase price or lease costs, insurance, maintenance, charging/fuel, tax, and depreciation.

Ultra-Rapid Charging

High-speed chargers providing 150kW or more, allowing EVs to recharge significantly faster—often to 80% in 20-30 minutes.

Value Added Tax (VAT) on Public Charging

Currently set at 20% in the UK, this tax applies to public EV charging. The report recommends reducing it to 5% to improve affordability for drivers without home charging.

Vehicle Excise Duty (VED)

A UK road tax applied to vehicles based on factors like emissions and value. From April 2025, EVs will no longer be exempt.

Well-to-Wheel Emissions

A measurement of a vehicle's total environmental impact, considering both fuel production and actual vehicle use. BEVs generally have lower well-to-wheel emissions than ICE vehicles.

Zero Emission Vehicle (ZEV) Mandate

A government policy requiring car manufacturers to sell a minimum proportion of zero-emission vehicles annually, designed to accelerate the transition away from fossil fuels.

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Electric Vehicles UK is an industry-to-consumer body designed to enable end-users to better understand battery electric vehicles, and to drive demand.

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