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Plugging into the future

EV myths and the transition to electric transport

2025

Introduction

The UK's shift to electric vehicles (EVs) and transportation is accelerating. Battery electric vehicles (BEVs) made up 19% of new car registrations in 2024 while new registrations of petrol, diesel and hybrid cars dropped slightly. Yet combustion engines still dominate, making up more than 90% of all cars on the road. Their impact on climate, air quality and health remains significant. BEVs are a critical technology that can deliver a clean, sustainable transport system.

Lloyds is committed to supporting the transition to BEVs. We have provided over £10 billion in financing for EV and plug-in hybrid vehicles since 2021 and have undertaken significant work to challenge myths and provide evidence-based insights on BEV adoption.

This report, developed in partnership with Frontier Economics, outlines new evidence on consumer perceptions and the extent to which misperceptions may be holding back adoption across different groups of people.

This study draws on an online survey of 2,187 UK individuals who purchased a car within the last two years. Respondents answered questions about BEV features and tested their perceptions. Results were benchmarked against real-world data to quantify perception gaps; and segmented by demographics and behaviours to identify the groups most affected.

The findings highlight where misperceptions are strongest and where action is most needed. The intention is to provide the Government and relevant stakeholders with valuable insight and evidence to support the transition.

Addressing these misperceptions will help ensure that the move to cleaner transport is fair, inclusive, and benefits everyone in the UK.

Nick Williams Foreword

The transition to battery electric vehicles (BEVs) represents a pivotal step in our journey towards a sustainable future. As we navigate this rapidly evolving period of change, it is crucial to ensure that the benefits of BEV adoption are accessible to everyone. This report illustrates a critical finding: that awareness of the benefits of BEVs is lowest among households with the lowest incomes.

Although BEVs offer potential cost and environmental advantages, the initial purchase price means they are not yet accessible for many. By improving understanding now, we can help ensure households that are ready to make the switch benefit as options become more affordable and widely available. For instance, today the average savings from switching from petrol to a BEV could amount to £960 per year - nearly 2.5% of the annual net income for a family earning £30,000. The Government will need to carefully consider what it's proposed pay-per-mile proposal means for the potential savings of switching to a BEV – and any implications for their uptake. However, even with the Government's proposals in the Autumn Budget, under our model savings from going electric could reach around £780 a year.

While our research took place prior to the Autumn Budget 2025, it serves to highlight how important building public awareness of the benefits of going electric is – especially as the tax treatment of BEVs gets more complicated.

Lower-income households already hold more negative perceptions about EVs compared to their higher-income counterparts. These misperceptions range from overestimating the cost of home charging to underestimating the range and battery life of EVs. Such misconceptions act as barriers to adoption and prevent these households from realising the full benefits of EV ownership.

Addressing these misperceptions is not just a matter of providing information; it requires a concerted effort from both the Government and the industry. The report suggests several key actions, including awareness campaigns, financial incentives, and battery health testing to improve the confidence of potential buyers. Importantly, we need to consider further support to build a sustainable used BEV market, as this income group is more likely to buy used.

These initiatives can help bridge the knowledge gap and make BEVs more accessible to lower-income households. By doing so, we can ensure that the transition to cleaner transport is fair, helping all segments of society realise the environmental and financial benefits of going electric.

Executive Summary

Our analysis shows that consumers have a good understanding of some of the main expenses incurred when running or owning a battery electric vehicle (BEV), but they hold significant misperceptions around key aspects of what it is like to own a BEV, which are likely acting as barriers to uptake.

Cost of owning a BEV

Consumers overestimate the price of entry-level BEVs and do not realise the comparatively low cost of home charging

Battery life

Consumer expectations of a typical battery lifecycle and how much capacity it loses over time are significantly below the reality

Charging at home

Many consumers are not aware that they could charge a BEV at home

Charging on the go

The coverage of the UK charging infrastructure is much better and charging on the go much quicker than people realise

Fire risk perceptions

Consumer misperceptions that electric car fires are more likely than those involving petrol cars

The perceptions of lower income households towards BEV use are significantly more negative than those on higher incomes...

... but having experience driving a BEV, or even knowing others who do, has a huge impact on resolving most misperceptions.

Key policy suggestions and stakeholder actions to address misperceptions and improve BEV uptake

- Confidence in battery health is a critical issue when it comes to confidence in used BEVs - Government and industry should agree a standard battery health test as soon as possible
- Government should deliver another awareness campaign to tackle misconceptions and demonstrate how convenient using a BEV is
- Government should focus parts of its funding for EV incentivisation to support take-up by those on lower incomes, for example through financial incentives, support for the used market and further investment in charging infrastructure
- Further work could improve dealer understanding of BEV features, savings and importantly longevity

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Policy context

Towards a cleaner, stronger economy

01 The UK has set ambitious targets for the green transition in transport, with a progressive zero-emission vehicle mandate that will culminate in a ban on the sales of new petrol, diesel and hybrid cars by 2035. To deliver this, the Government has introduced several measures to promote BEVs, ranging from investment in charging networks to incentives that support consumer adoption.

02 While recent coverage has focused on the Government's announced plans to introduce 'pay per mile', more broadly policy focus has widened to view the transition not just as an environmental and public health necessity, but also as a driver of economic growth. The Leeds Reforms announced at this year's Mansion House identify the financial services industry as central to driving UK competitiveness, with sustainable finance and the green transition identified as priority areas for investment and leadership.

03 This positions the UK's transport decarbonisation agenda not only as a route to Net Zero, but also as a means to boosting the economy, improving wellbeing, and establishing the UK as a global leader. Achieving this will require coordinated action from the Government, the transport industry and financial services firms. As a leading financial institution, we are committed to playing our part in driving investment, empowering consumers to make informed choices, and ensuring the benefits of the transition are shared across society. This report is part of that contribution.

Consumer awareness and misperceptions of BEVs

Initial cost, range anxiety and home charging concerns remain among the most important barriers to BEV uptake

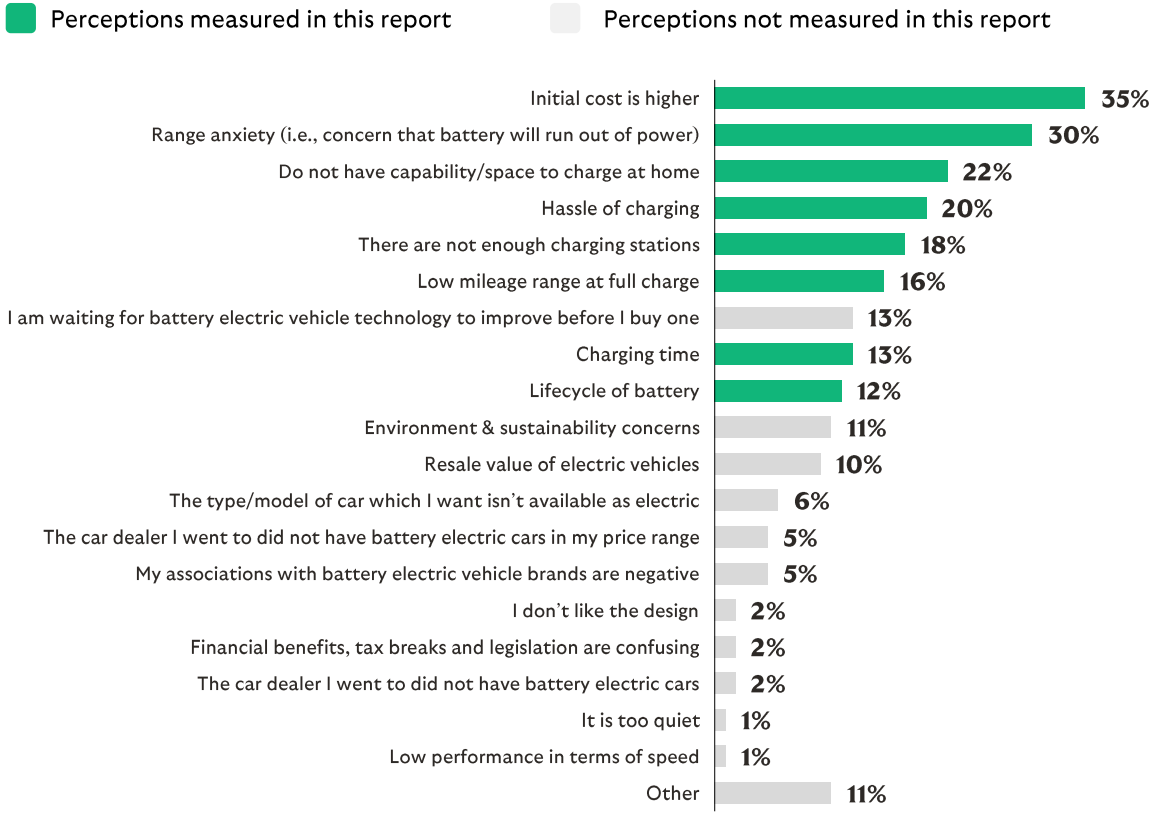
01 When people that recently purchased a car were asked to state the most important barriers for not choosing a BEV, the initial cost, range anxiety and the lack of home charging capability surfaced as three the most important issues.

02 Hassle of charging, not having enough charging stations and low mileage at full range were also stated as important.

03 In this report, we explore the potential misperceptions around these six main barriers as well as charging time and the lifecycle of BEV batteries.

04 While not explicitly stated as a top barrier, we also explore consumer perceptions around fire risk of BEVs.

Proportion of people for whom this is a top 3 most important barrier to buying a BEV



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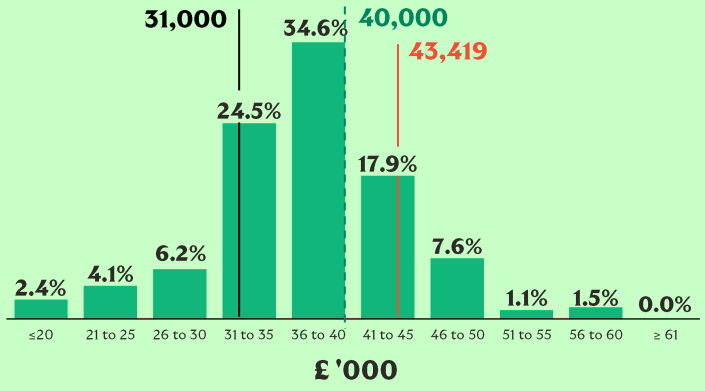
Consumers have a good understanding of the expenses associated with BEVs

Median answer — True answer — Petrol car comparator

Consumers have a good sense of the upfront expense of a BEV. When asked to estimate the price of a typical new BEV, most people guessed it would cost around £40,000 – which is close to the true value of £43,419.

The charts in this report show the distribution of survey responses as well as the median response and true answer.

Perceptions of the average price of a typical new BEV (Percentage of responses)

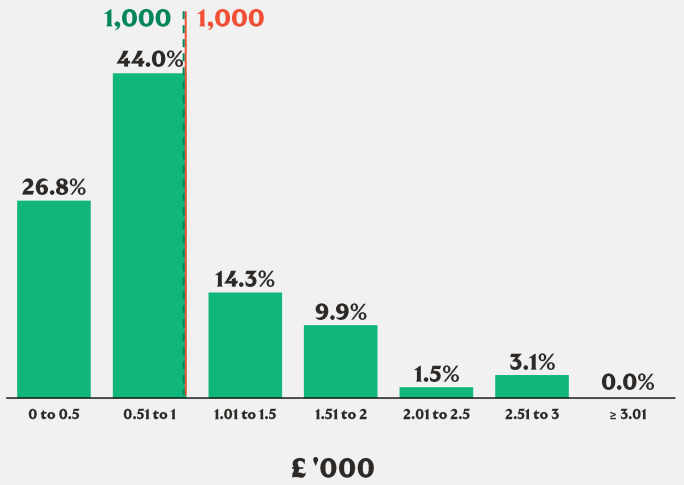


People also have a good understanding of some of the other costs associated with having a BEV.

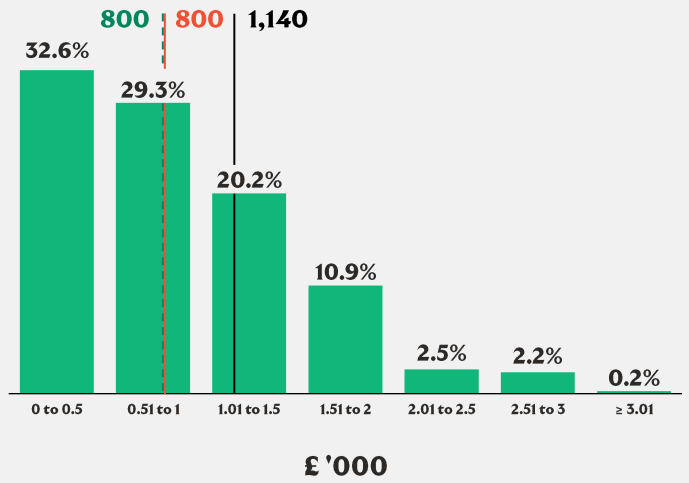
Perceptions of how much it costs to install EV charging equipment at home are very close to reality – the median answer in our survey was £1,000, which is in line with the average cost for this equipment.

Consumer perceptions of the annual servicing costs of BEVs are also close to reality.

Perceptions of the cost to install EV home charging equipment (Percentage of responses)



Perceptions of the annual servicing costs of a typical BEV (Percentage of responses)



Note. The charts show the distribution of survey responses as well we the median response and true answer.

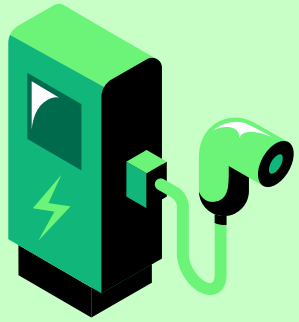
There are many areas where consumer perceptions of BEVs and their features are significantly misinformed

Cost of owning a BEV

Consumers overestimate the price of entry-level BEVs and do not realise the comparatively low cost of home charging

Battery life

Consumer expectations of a typical battery lifecycle and how much capacity it loses over time are significantly below the reality



Charging at home

Many consumers are not aware that they could charge a BEV at home

Charging on the go

The coverage of the UK charging infrastructure is much better and charging on the go much quicker than people realise

Fire risk perceptions

Consumer misperceptions that electric car fires are more likely than those involving petrol cars

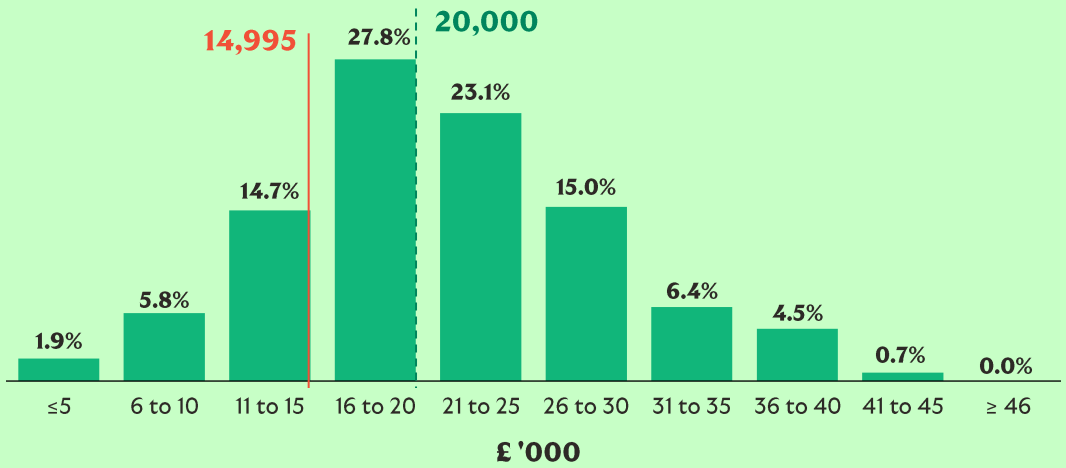
Consumers overestimate the cost of entry-level BEVs and do not realise how inexpensive home charging is

Median answer — True answer — Petrol car comparator

On average, our respondents thought that the cheapest new five-seater BEV on the market costs £20,000, when in reality it is 25% cheaper: the Dacia Spring costs just £14,995.

Less than 15% of consumers thought that the price of the cheapest BEV currently available is between £10,000 and £15,000 and most guessed that it would be significantly more.

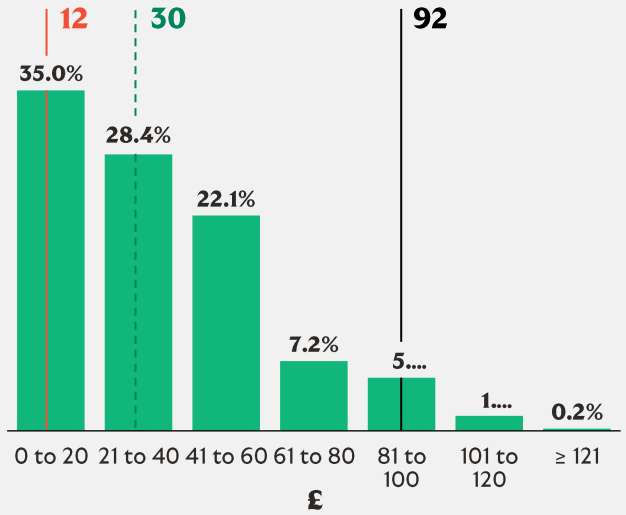
Perceptions of the price of the cheapest new five-seater BEV on the market *(Percentage of response)*



The higher upfront cost of BEVs compared to petrol vehicles can, in some cases, be offset by the lower ongoing costs of charging at home overnight.

78% of BEV drivers surveyed used a public charging point fewer than 2 times last month.

Perceptions of the monthly cost of home charging a BEV overnight
(Percentage of response)



- People significantly overestimate the costs of charging a BEV at home overnight. The average estimated monthly cost for charging a BEV at home was £30 – more than double than the £12 it costs for the typical driver.
- This illustrates how material the savings from driving a BEV can be: the petrol costs for the same usage pattern would be £92 per month.

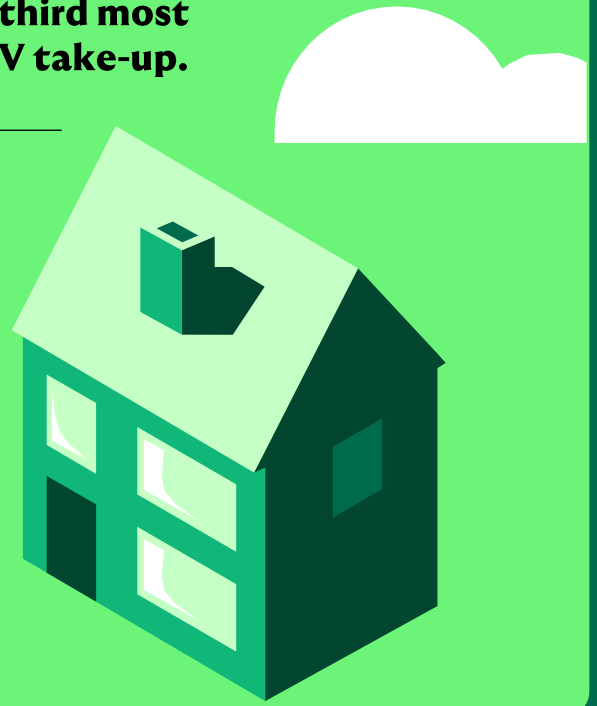
Note. The charts show the distribution of survey responses as well we the median response and true answer.

Many consumers are not aware that they could charge a BEV at home

Considerations around home charging are very important to consumers. Not being able to charge a BEV at home was the third most important stated barrier to BEV take-up.

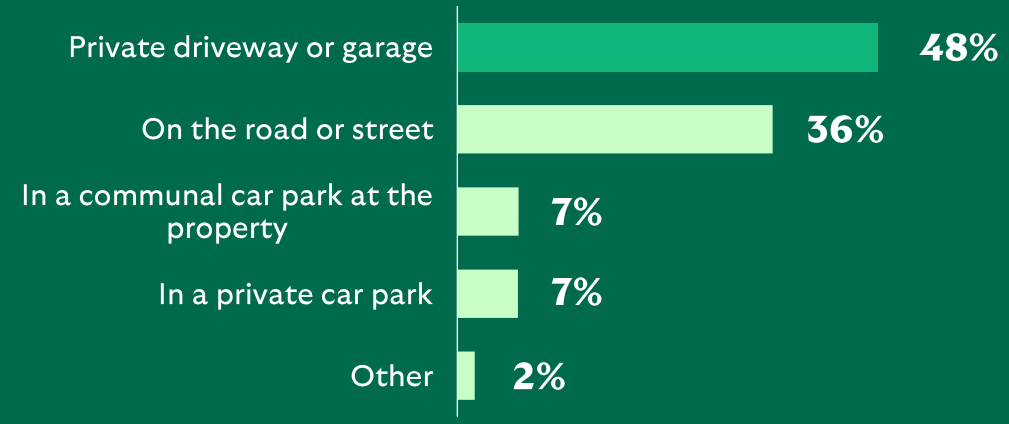
22%

of consumers said that not being able to charge at home was among their top 3 reasons for not purchasing a BEV



But out of consumers that chose this option, nearly half keep their car on a private driveway or in a garage, which means that they would most likely be able to install BEV charging equipment at home.

Where is your car usually parked?

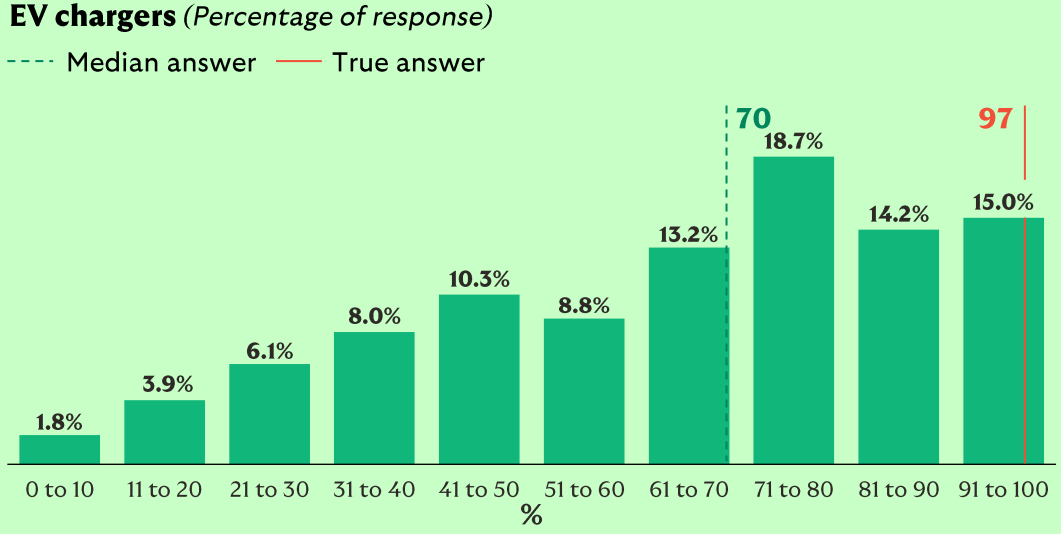


Consumers significantly underestimate how wide the coverage of the UK EV charging infrastructure is

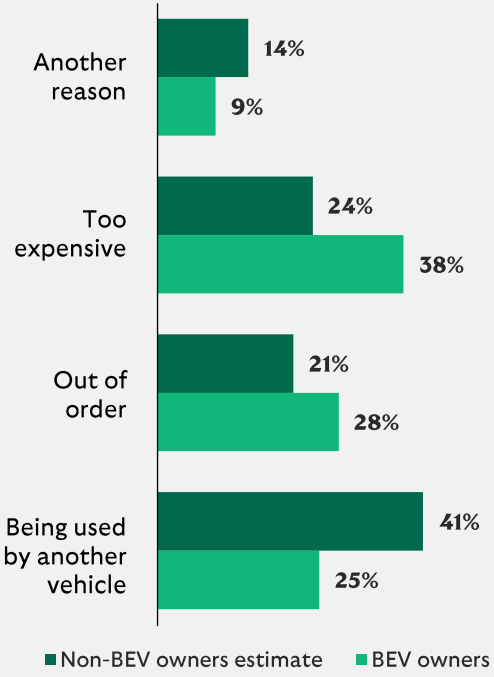
People on average estimate that only 70% of UK motorway services stations have EV chargers. The true figure is 97%.

Only 15% of consumers guessed that over 90% of UK motorway services stations have EV chargers.

Perceptions of the proportion of motorway services stations that have EV chargers *(Percentage of response)*



Reason for not being able to use a public charging point



- Even though the coverage of EV charging points is good, they may not always be available for drivers to use.
- Our survey asked consumers to think about all the times when the first charging point that a BEV owner attempted to use was not available and the frequency of different reasons behind it. The results are compared to the real-world experiences of BEV owners in our sample.
- Non-BEV owners think that EV chargers are unavailable due to being used by another vehicle more often than they actually are: 41% vs. 25% of the cases.
- At the same time, they underestimate how frequently BEV drivers decide against using a public charging point due to it being too expensive.

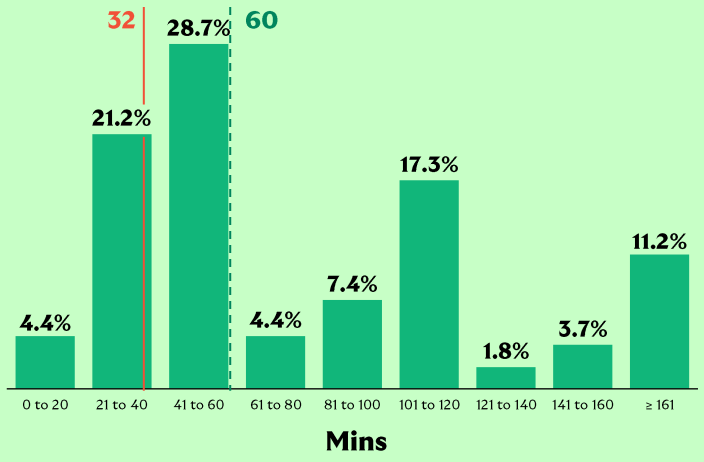
Note. The charts show the distribution of survey responses as well we the median response and true answer.

Charging on the go is much quicker and BEV ranges are better than people realise

---- Median answer —— True answer

Consumers believe that it takes much longer to charge a BEV using an ultra-rapid charger than it does: the average estimate to charge a BEV to 80% was 1 hour, when in reality it takes only about half that time.

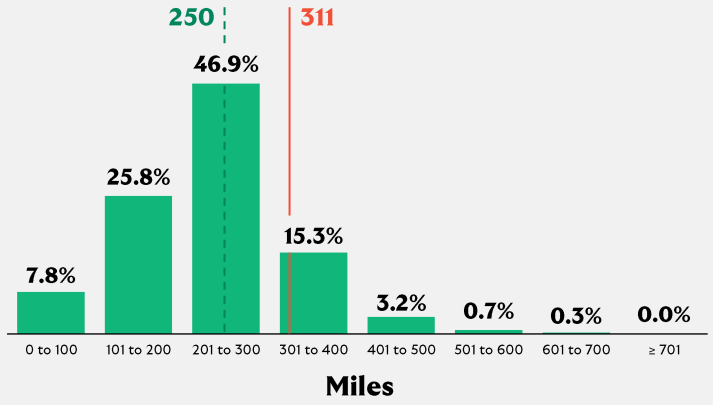
Perceptions of time it takes to charge a BEV to 80% using an ultra-rapid charger
(Percentage of responses) Charge time: Ultra-rapid charger



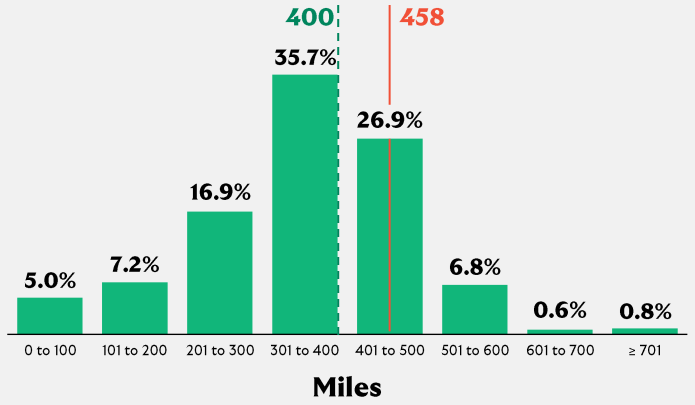
People underestimate the range of BEVs: a typical BEV[1] can go 311 miles on a full charge, but the average estimate in our survey was 250 miles. Over a third of people thought that the typical BEV had a range of less than 200 miles.

Misperceptions over range are not limited to electric cars. The average estimated range for a comparable petrol car was 400 miles, when in reality it is closer to 460 miles. But the much lower estimates for BEVs may create more 'range anxiety' for consumers.

Perceptions of the mileage of a typical BEV on a full charge (Percentage of responses)



Perceptions of the mileage of a typical comparable petrol car on a full tank (Percentage of responses)



Note. The charts show the distribution of survey responses as well we the median response and true answer.
1. Average range of the top best-selling SUV-C BEVs - Source for models: Sync Energy's ranking. Source for ranges: Tesla, Audi, Skoda and Volkswagen.

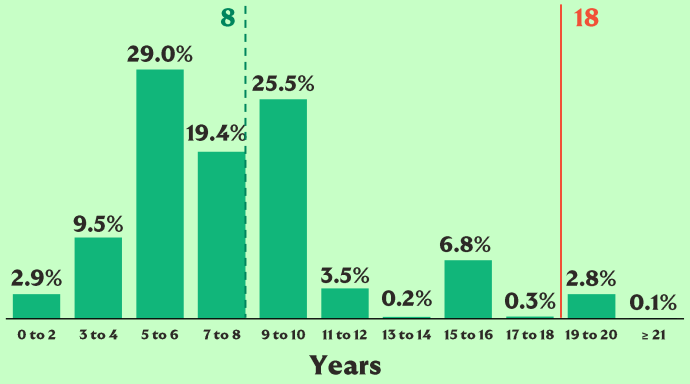
Expectations of a typical battery lifecycle and how much capacity it loses over time are significantly below the reality

---- Median answer —— True answer

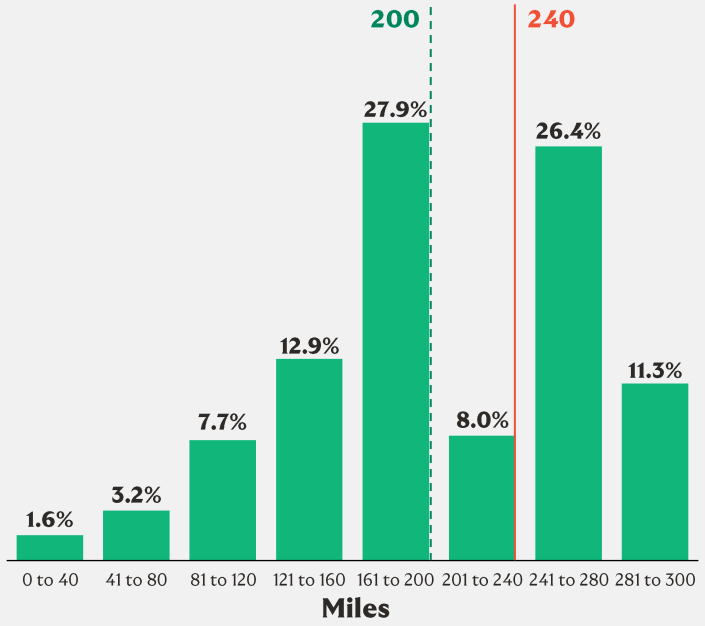
People think that the battery of a typical BEV lasts only 8 years before it needs to be replaced. This is likely to be impacted by the 8-year battery warranty period.

In reality, some sources suggest modern batteries may outlast the vehicle itself – with an average lifespan of 18 years. Less than 5% of consumers guessed that batteries could last 18 years or more.

Perceptions of BEV battery lifespan
(Percentage of responses)



Perceptions of the number of miles a BEV can do on a single charge after 10 years of use (compared to 300 miles when new)
(Percentage of responses)



44% **of consumers believe that a petrol car can do the same number of miles on a full tank after 10 years of use as a new one**

- This is further reflected in consumer opinions of battery degradation over time.
- Reductions in BEV range over time are smaller than people think they are.
- On average, respondents thought that a typical BEV with the original range of 300 miles could only do 200 miles (33% less) after 10 years of use.
- In reality, BEVs only lose about 20% of their range over a 10-year period and the expected range would be around 240 miles.
- By contrast, 44% of respondents believed petrol cars lose no range at all, even though petrol and diesel cars can also experience reduced efficiency and higher fuel consumption as they age.

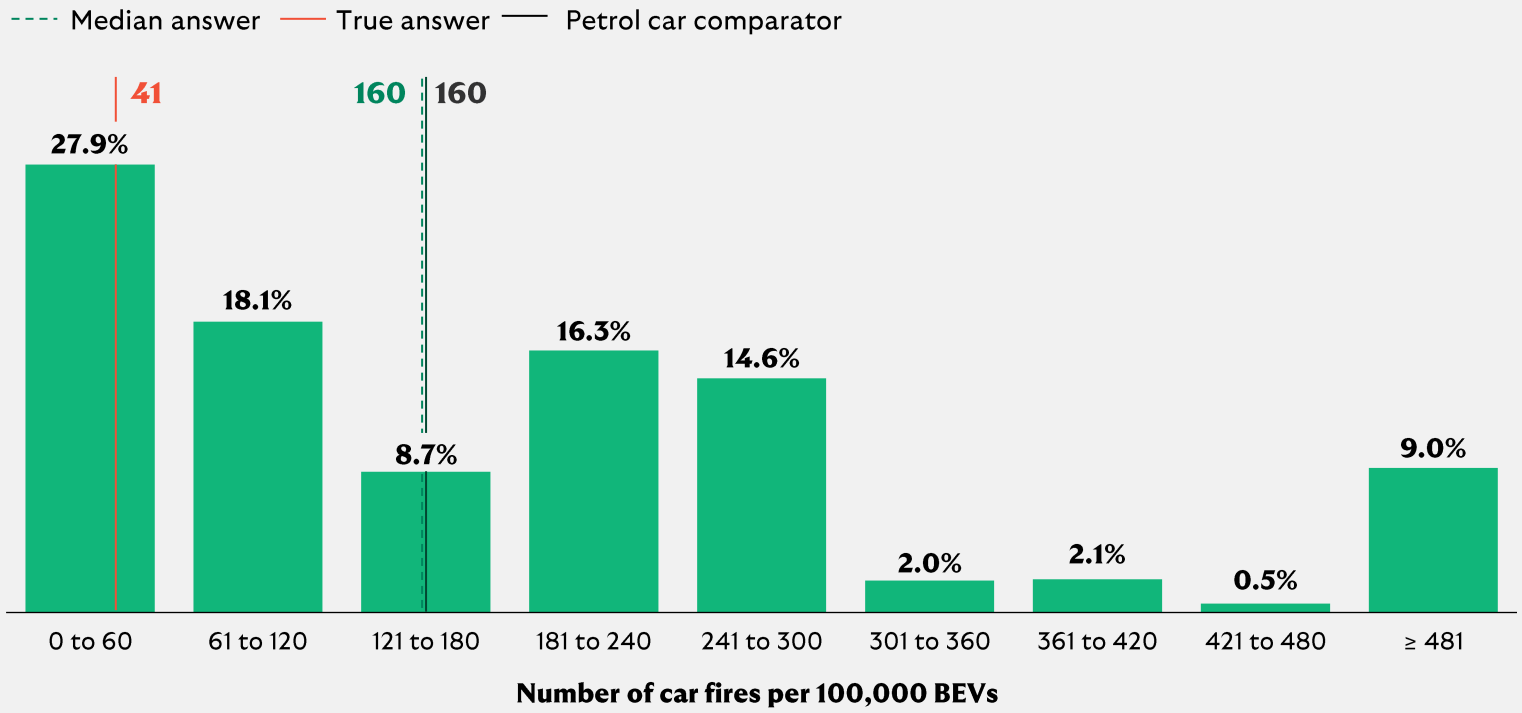
Note. The charts show the distribution of survey responses as well we the median response and true answer.

Consumer misperceptions about BEV car fires are commonplace

Electric car fires have received significant media attention in recent years and have potentially contributed to the barriers of BEV update.

Consumers significantly overestimate the fire risk of BEV: the actual rate is just 41 incidents per 100,000 cars, but the average estimate in the survey was 160 incidents per 100,000 cars – the same as for petrol cars. In reality, the risk of a BEV catching fire is much lower than that of a petrol car.

Perceptions of the frequency of car fires per 100,000 BEVs
(Percentage of responses)



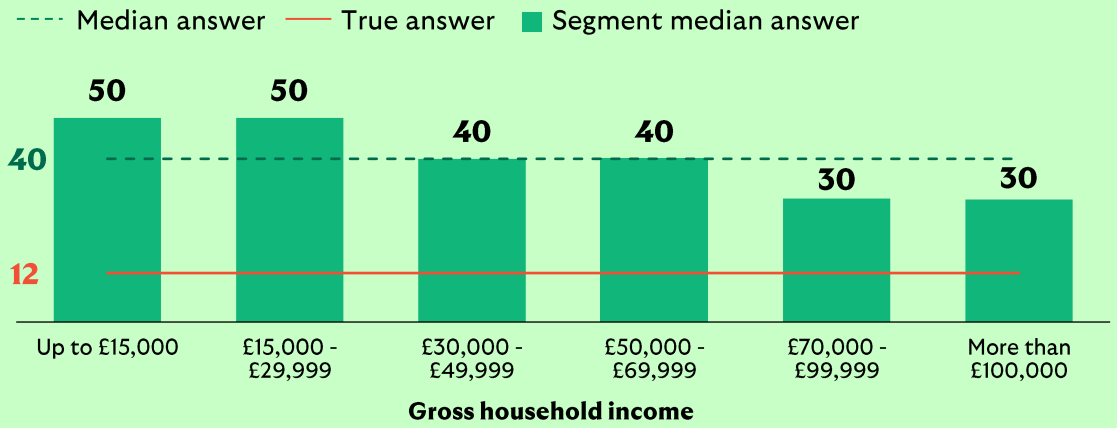
Note. The charts show the distribution of survey responses as well we the median response and true answer.

Insights from key consumer segments

Consumers on lower incomes significantly underestimate how much they could save by switching to a BEV

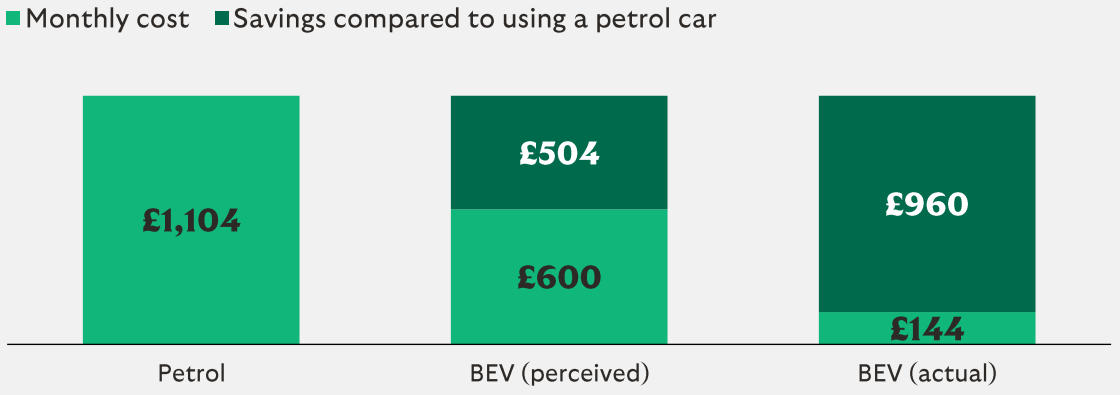
- The perceptions of lower income households towards BEV use are significantly more negative than those on higher incomes.
- This is evident in the difference in the perceptions towards the cost to charge a BEV at home overnight between different income segments.
- Although all consumer segments overestimate how expensive home charging is, lower income households expect BEV charging costs to be much more (£50/month) than those on the highest incomes (£30/month).

Average perceptions of the monthly cost of home charging a BEV overnight by income segment (£)



- A typical driver spends £92/month or £1,104/year on petrol. This equals about 4% of the annual net earnings for a family with a household income of £30,000.
- The average savings that people expect to make from switching from petrol to a BEV would be £504/year, assuming all charging takes place at home overnight.
- The real savings that people could realise on average are £960/year, or nearly 2.5% of the net income for someone earning £30,000.

Comparison of actual and perceived annual costs of using a BEV compared to a petrol car, households with income under £30,000

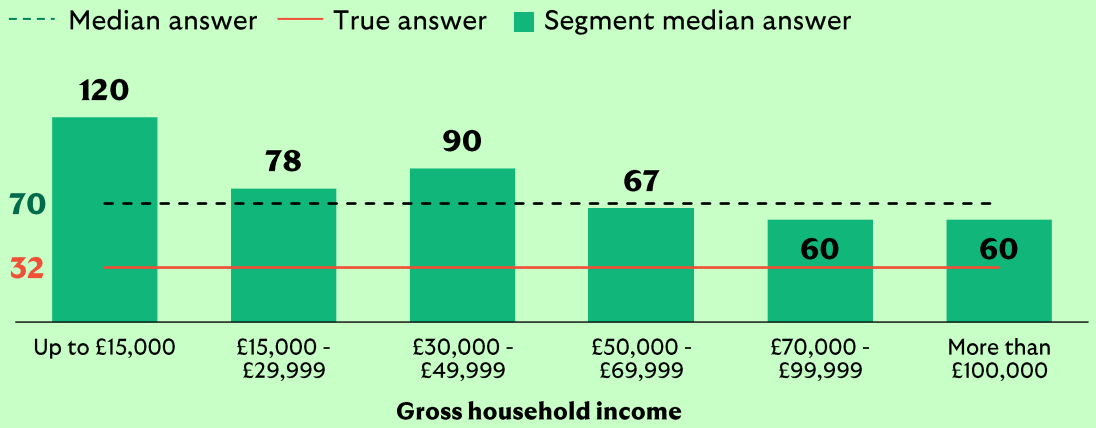


Note. The left chart shows the distribution of survey responses as well we the median response and true answer.

The perceptions of lower income households towards other BEV features are significantly more negative than those on higher incomes

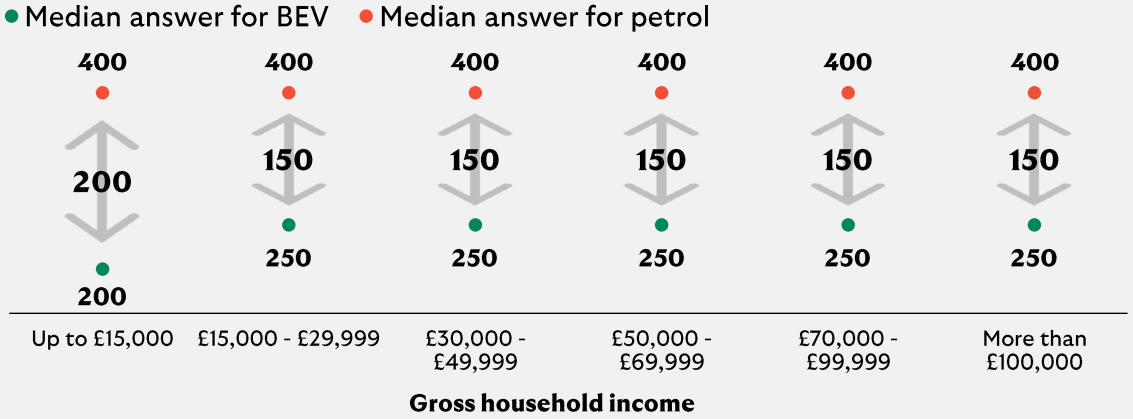
- In addition to underestimating the savings from home charging a BEV, lower-income households are more pessimistic towards other elements of BEV use.
- While consumers generally overestimate the time it takes to charge a BEV to 80% using an ultra-rapid charger, the lowest income groups believe that this takes significantly more than an hour, while those on the highest incomes believe the figure to be closer to an hour.

Average perceptions of time it takes to charge a BEV to 80% using an ultra-rapid charger by income segment (Minutes)



- Those on lower-incomes also tend to underestimate the range of a typical BEV more than other consumer groups.
- Among those with a household income under £15,000, the average person expects the difference in the range between a petrol car and a BEV to be 200 miles while other groups believe it to be around 150 miles.
- In practice, the actual difference is about 150 miles (with an average of 458 miles for petrol cars versus 311 miles for BEVs).

Average perceptions of the mileage of a typical BEV on a full charge vs. a typical petrol car on a full tank by income segment (Miles)



Note. The left chart shows the distribution of survey responses as well we the median response and true answer.

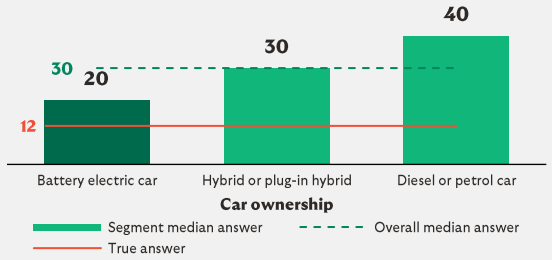
Having experience driving a BEV has a huge impact on resolving most misperceptions

Our analysis shows that people that have experience driving a BEV hold significantly more positive attitudes towards BEVs and have fewer misperceptions around their use. This is also true to a lesser extent for hybrid drivers.

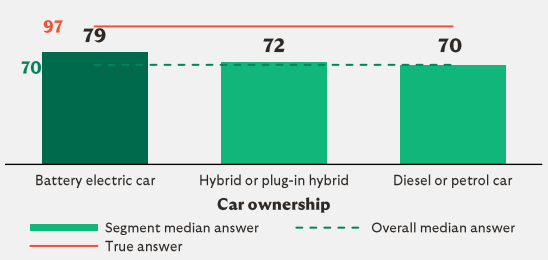
This result holds across perceptions of the cost of charging, the coverage of charging equipment and the speed of charging, range, battery performance and degradation.

This is to be expected given these drivers will have real world (and positively reinforcing) experience of using a BEV.

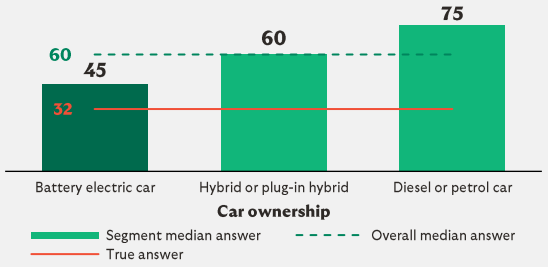
Average perceptions of the **monthly cost of home charging** a BEV overnight by type of car owned (£)



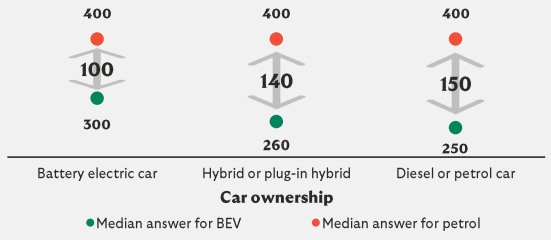
Average perceptions of the **proportion of motorway services stations that have EV chargers** by type of car owned (%)



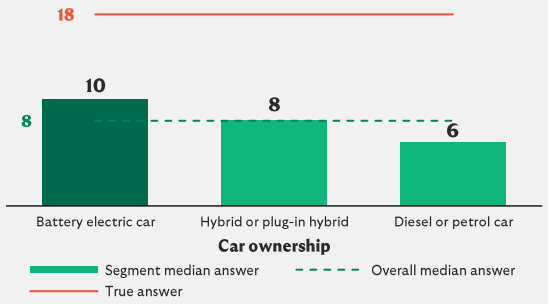
Average perceptions of **time it takes to charge a BEV to 80%** using an ultra-rapid charger by type of car owned (Minutes)



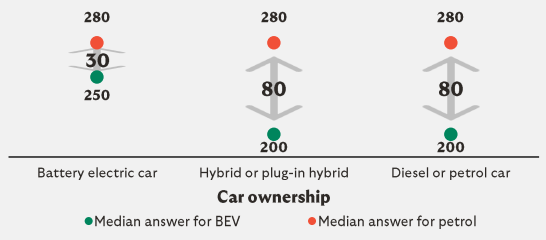
Average perceptions of the **mileage of a typical BEV** on a full charge **vs. a typical petrol car** on a full tank by type of car owned (Miles)



Average perceptions of **BEV battery lifespan** by type of car owned (Years)



Average perceptions of the **number of miles a car can do** on a single charge / full tank after 10 years of use (compared to 300 miles when new) by the type of car owned (Miles)



Note. The charts show the distribution of survey responses as well we the median response and true answer.

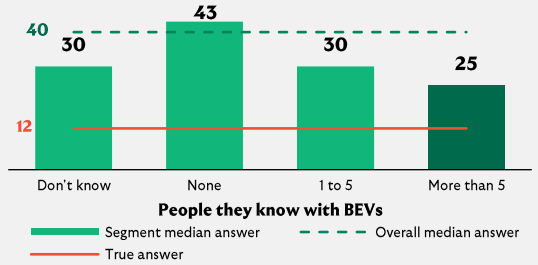
Knowing others who own a BEV has similar effects

Even the consumers who do not own a BEV themselves are more positive and accurate in their perceptions towards BEVs if they have friends or family members who own a BEV.

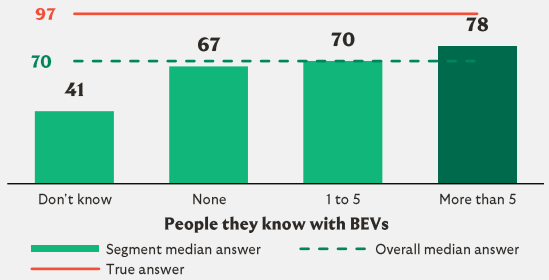
This is broadly true across perceptions of the cost of charging, the coverage of charging equipment and the speed of charging, range, battery performance and degradation.

This suggests that BEVs becoming more commonplace is likely to generate positive network effects where consumer perception barriers can be overcome simply by being more exposed to BEVs through other people in their lives.

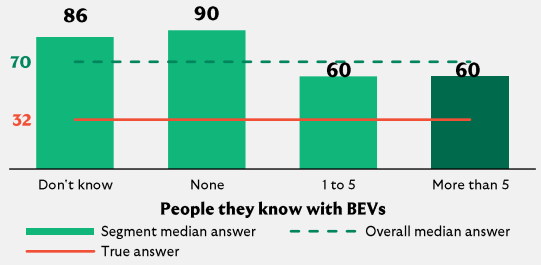
Average perceptions of the **monthly cost of home charging** a BEV overnight by type of car owned (£)



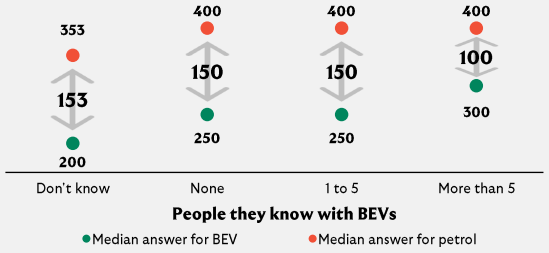
Average perceptions of the **proportion of motorway services stations that have EV chargers** by the number BEV owners known (%)



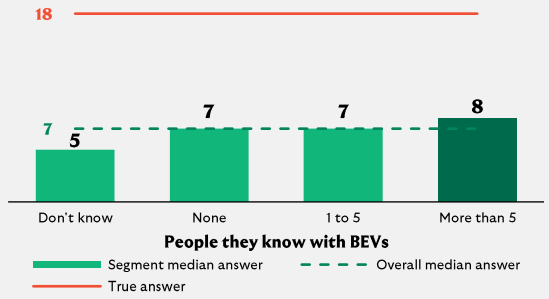
Average perceptions of **time it takes to charge a BEV to 80%** using an ultra-rapid charger by the number BEV owners known (Minutes)



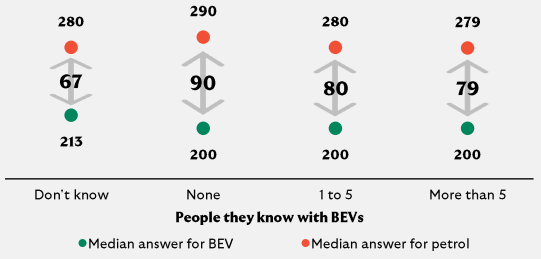
Average perceptions of the **mileage of a typical BEV** on a full charge **vs. a typical petrol car** on a full tank by the number BEV owners known (Miles)



Average perceptions of **BEV battery lifespan** by the number BEV owners known (Years)



Average perceptions of the **number of miles a car can do** on a single charge / full tank after 10 years of use (compared to 300 miles when new) by the number BEV owners known (Miles)



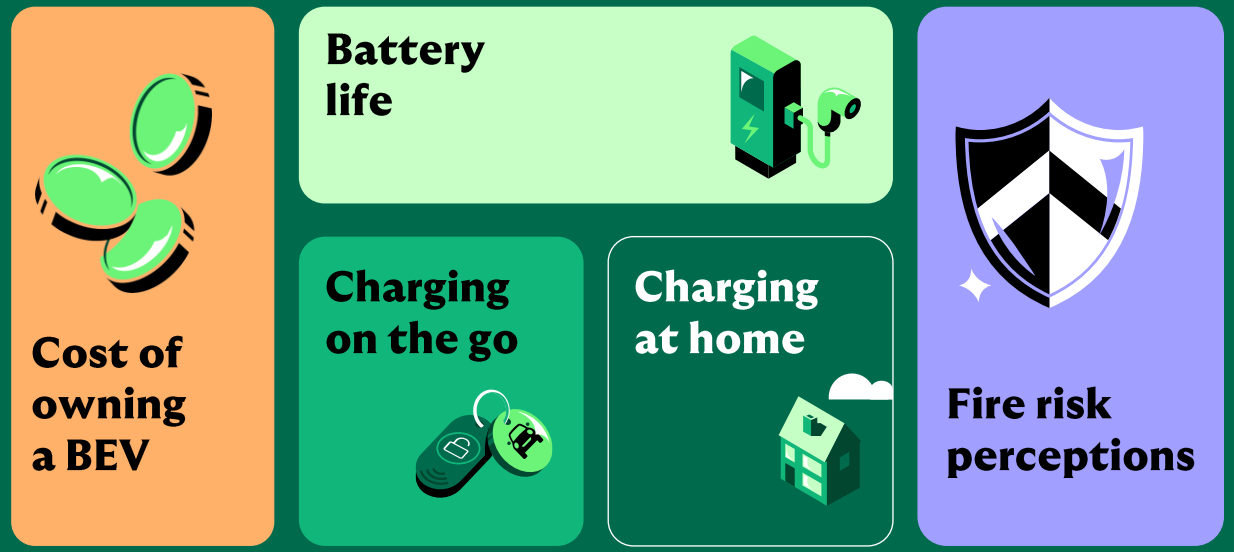
Note. The charts show the distribution of survey responses as well we the median response and true answer.

Takeaways for Government and the industry

This report highlights important considerations for the future design of BEV incentives

The Government has made a clear commitment to transitioning the UK away from petrol, diesel and hybrid cars towards BEVs and this is supported by a wide range of existing policies.

This report has highlighted key areas where consumer uptake of BEVs is limited not purely by factual considerations but may instead be driven by misperceptions. The misperceptions fall into five areas:



01 Recognising that upfront cost can be a barrier to adoption, we find that those earning less than average have the most to gain from switching from petrol or diesel to much cheaper BEV home charging and hold the strongest misperceptions and negative attitudes towards BEVs. Exposure to BEVs, on the other hand, whether direct or through friends and family, goes a long way to dispel these myths.

02 Given these network effects, it is important for the Government and industry to ensure that as BEV adoption grows, some consumer groups – particularly those that do not spend time with people that already own BEVs – do not get left behind.

03 We propose a set of policy recommendations for the Government to take forward to support the work already being done as it seeks to accelerate the electric transition on the nation's roads. We also outline the actions that the industry could take to address the barriers and misperceptions highlighted in this report.

Policy recommendations to address misperceptions and improve BEV uptake

We propose four main actions for the Government to take forward to tackle the barriers identified in our research: battery health testing, a campaign to increase awareness and improve consumer understanding of BEVs, financial incentives targeted at lower income households and further investment in charging equipment.

Policy	Misperceptions addressed: Cost	Charging at home	Charging on the go	Battery life	Fire risk perceptions
1. Build public confidence in battery life spans: Develop and implement a 'battery health testing' standard to provide confidence to consumers on battery life span and future value when buying a BEV.	✓			✓	
2. Awareness campaign to show: • That modern BEVs (both new and used) are close to petrol cars in terms of range, longevity, availability of charging stations. • That some of the perceptions around the cost, possibility to charge at home, public charging infrastructure, battery life and safety are myths. • How simple some of the behaviour change needed to use a BEV can be: charging while going to the shops, using a single app to find charging stations, paying with contactless, etc.	✓	✓	✓	✓	✓
3. Financial incentives for used BEVs and lower-income households such as grants and tax breaks linked to current funding to further encourage BEV adoption among this segment and ensure that it benefits from the network effects of misconceptions getting resolved through exposure.	✓	✓	✓	✓	✓
4. Improve access to charging equipment, such as: • Address the disparity that currently exists in the VAT treatment of public and at-home charging • Priority access to free or discounted public charging in lower income neighbourhoods, especially where homes lack private driveways and garages.		✓	✓		

Policy recommendations to address misperceptions and improve BEV uptake

In addition to the Government actions, there is more that the industry could do to facilitate the transition to BEVs and help meet the UK's Net Zero ambitions. We set out the key actions to be considered by car manufacturers, car dealerships and charging infrastructure providers and how they would help address consumer misperceptions.

		Misperceptions addressed				
Stakeholder	**Action**	**Cost**	**Charging at home**	**Charging on the go**	**Battery life**	**Fire risk perceptions**
Car dealerships / Manufacturers / Financiers	1. Improve salesperson understanding of BEV features and use the sales journey to tackle misperceptions	✓	✓	✓	✓	✓
	2. Position the ongoing savings from using a BEV more prominently during the sales process	✓				
	3. Encourage increased stock of used BEVs at dealerships through initiatives such bespoke financing, guaranteed pricing and sale or return.	✓				
Charging infrastructure providers	4. Continue building out the high-speed charging network			✓		
	5. Improve slower speed charging network by introducing tap and go payments, as well as better signposting of locations and pricing			✓		

Appendix

Appendix: Questions Glossary

	Question	Asked to
1	Which of the following, if any, best describe why you did not purchase a battery electric car? Initial cost is higher; there are not enough charging stations; hassle of charging; charging time; do not have capability/space to charge at home; lifecycle of battery; low mileage range at full charge; range anxiety (i.e., concern that battery will run out of power); environment & sustainability concerns (i.e., lithium mining, battery production & disposal); low performance in terms of speed; financial benefits, tax breaks and legislation are confusing; it is too quiet; I don't like the design; the type/model of car which I want isn't available as electric; my associations with battery electric vehicle brands are negative; I am waiting for battery electric vehicle technology to improve before I buy one; resale value of electric vehicles; because the car dealer I went to did not have electric cars; other. Out of the reasons you have selected, which 3 were the most important to your decision?	Participants not owning a BEV
2	The average price of a new 2025 petrol sports utility vehicle (SUV) is about £31,000. How much do you think a new battery electric SUV car would cost? Examples of SUVs include models such as Kia Sportage, Volkswagen Tiguan, Tesla Model Y and Audi Q4 e-tron.	All participants
3	How much do you think it would cost to install home charging equipment for an electric car at a typical UK house with a driveway?	All participants
4	It costs about £2,000 per year for a typical driver to insure the average new 2025 petrol SUV for comprehensive cover. How much do you think it would cost for a comparable battery electric SUV?	All participants
5	What do you think is the price of the cheapest new four-seater battery electric car currently on the market in the UK?	All participants
6	If someone drives 600 miles in a month and spends £92 on petrol in a new car, how much do you think it would cost to drive the same distance in a battery electric car, if they do all charging at home overnight?	All participants
7	Where is your car at home typically parked? Private driveway or garage; on the road or street; in a communal car park at the property; in a private car park; in a public or council car park; other.	All participants
8	What percentage of motorway service stations in the UK do you think have electric vehicle chargers?	All participants
9	On how many occasions in the past month, if any, have you used a public charging point? On how many of those occasions was the charging point you went to first: Being used by another vehicle; Out of order; Too expensive; Not suitable for them to use for another reason.	Participants owning a BEV
10	If the typical electric vehicle owner needs to use a public charging point 10 times per month (in addition to charging at home the rest of the time), on how many of those occasions do you think the charging point they went to first would be: Being used by another vehicle; Out of order; Too expensive; Not suitable for them to use for another reason.	Participants not owning a BEV
11	How long do you think it takes to charge a typical battery electric SUV car from 0% to 80% using an ultra-rapid charger at a motorway services station?	All participants
12	On average, how many miles do you think a typical petrol SUV car can go on a full tank? This includes cars such as Kia Sportage, Nissan Qashqai, Hyundai Tucson and MG HS.	All participants
13	On average, how many miles do you think a typical long-range model of a battery electric SUV car can go on a full battery (that is, a battery that is charged to 100%)? This includes cars such as Tesla Model Y, Audi Q4 e-tron, Skoda Enyaq and Volkswagen ID4.	All participants
14	How many years do you think the battery of a typical battery electric car lasts before it needs to be replaced?	All participants
15	If a new petrol car has the range of 300 miles on a full tank, how many miles do you think it can drive on a full tank after 10 years of use with regular maintenance?	All participants
16	If a new battery electric car has the range of 300 miles on a full battery, how many miles do you think it can drive on a full battery after 10 years of use with regular maintenance?	All participants
17	Would you consider buying a battery electric car from each of the following brands? BYD; Nio; Xpeng; Ora; MG; Tesla; Rivian; Polestar; Hyundai; BMW; Audi; Mercedes-Benz; Volvo; Volkswagen; Kia.	All participants
18	Research shows that, on average, about 160 car fires occur per 100,000 petrol and diesel vehicles each year. How many car fires do you think there are per 100,000 battery electric cars each year?	All participants

Appendix: Data Sources

Estimate	Description	Sources and assumptions
£31,000	Average price of a typical SUV petrol car	Average entry price of the top best-selling SUV-C petrol cars in 2024 (Kia Sportage, Nissan Qashqai, Hyundai Tucson, MG HS and Volvo XC40). Source for list of best-selling petrol cars: Top Gear's ranking. Source for car prices: brand websites.
£43,419	Average price of a typical SUV BEV	Average entry price of the top best-selling SUV-C BEVs in 2024 (Tesla Model Y, Audi Q4 e-tron, Škoda Enyaq, VW ID.4, Volvo EX40). Source for models: Sync Energy's ranking. Source for car prices: brand websites.
£1,000	Electric vehicle home charging equipment costs	Average cost of a home EV charger, including unit and installation (The Eco Experts).
£1,140	Annual servicing costs of a typical petrol car	Average annual servicing costs for petrol cars based on the total servicing costs over the first five years of ownership, using data from Clear Vehicle Data (as reported by The Car Expert, 2025).
£800	Annual servicing costs of a typical BEV	Average annual servicing costs for electric based on the total servicing costs over the first five years of ownership, using data from Clear Vehicle Data (as reported by The Car Expert, 2025).
£14,995	Price of the cheapest five-seater BEV in the market	Entry price of the Dacia Spring (Dacia). Source for cheapest car on the market: Autocar.
£92	Petrol car fuel costs per 600 miles / month	Based on an efficiency of 40 miles per gallon (typical car mileage efficiency according to Carplus), using the UK conversion of 1 gallon = 4.546 litres, and a fuel price of £1.355 per litre (ONS Consumer Price Inflation time series (MM23) for ultra-low sulphur unleaded petrol).
£12	Electricity BEV costs per 600 miles / month	Based on an efficiency of 4 miles per kWh (efficiency of new EVs today according to Select Car Leasing), and an average off-peak home electricity tariff of £0.077 per kWh (Zapmap Charging Price Index, May 2024–May 2025).
97%	Percentage of motorway service stations in the UK with electric vehicle chargers	Source: UK Government (April 2025).
32 minutes	BEV charging time from 0% to 80% using an ultra-rapid charger at a motorway services station	Charging takes about 24–28 minutes across models Tesla Model Y (ZECAR, Tesla Model Y Charging Guide), Audi Q4 e-tron (Audi UK, Q4 e-tron Range Overview), Skoda Enyaq (Skoda) and Volkswagen ID 4 (VW). Since some sources provide charging times only for 10–80%, we apply a linear adjustment: extending the range to 0–80% increases the estimated time from 28 minutes to about 32 minutes.
458 miles	Range on a full tank of a typical SUV petrol car	Average range of the top best-selling SUV-C petrol cars in 2024 (Kia Sportage, Nissan Juke, Hyundai Tucson and MG HS). Source for models: Top Gear's ranking. Source for range: Fuelly and car brand data (Kia, Nissan, Hyundai, MG).
311 miles	Range on a full charge of a typical SUV BEV	Average range of the top best-selling SUV-C BEVs in 2024 (Tesla Model Y, Audi Q4 e-tron, Škoda Enyaq and VW ID.4). Source for models: Sync Energy's ranking. Source for ranges: Tesla, Audi, Skoda and Volkswagen.
18 years	Lifespan of a BEV battery	A study published in 2025 estimates that BEVs have an average lifespan of approximately 18.4 years (Nature Energy). The majority of EV batteries will outlast the usable life of the vehicles they power and last 20 years or more (Geotab).
240 miles	BEV range after 10 years of use with regular maintenance, and original range of 300 miles.	BEVs retain approximately 80% of their original range, based on an average degradation rate of 1.8% per year (Geotab, EV Battery Health Insights: Data From 10,000 Cars).
160 cars	Car fires per 100,000 petrol and diesel vehicles each year	Calculated by Frontier Economics using data from the number of fires per ICE vehicles in Norway in 2020, published by ARUP and shared by the UK Government.
41 cars	Car fires per 100,000 BEVs each year	Calculated by Frontier Economics using data from the number of fires per EVs in Norway in 2020, published by ARUP and shared by the UK Government.

Appendix: Methodology

01 Lloyds Banking Group has partnered with Frontier Economics to produce this study.

02 We conducted a survey to explore public perceptions and barriers to BEV adoption among 2,187 individuals in the UK who purchased a car within the last two years. Participants included 324 BEV owners and 1,863 non-BEV owners.

03 Survey results were explored by 6 demographics (age, gender, location, occupation, gross income and household type) and 6 behavioural factors (type of car purchased, new or second-hand purchase, monthly car usage, number of annual long-distance trips, car parking location, and number of family and friends with BEVs).

04 The survey was conducted online by YouGov between 3 and 10 July 2025.

05 We obtained a response rate by question between 63% and 100%.

06 Extreme values falling outside 2 times the interquartile range (IQR) were removed for the quantitative analysis. This was done to ensure that results were not unduly skewed by a small number of extreme values.

07 Presentation of findings corresponds to the non-BEV owners' results, except for those questions that compare discrepancies of BEV vs non-BEV owners.

Thank you