EV Driver Tracker

Year 1 findings

Final report
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Ipsos UK report developed for the Department for Transport

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Contents

List of figures

List of tables

1 Glossary

Below is a table with keywords and definitions used throughout the report.

Table 1.1: Glossary with keywords and definitions

Keyword	Definition
Battery electric vehicle (BEV)	Electric or battery operated vehicle which relies entirely on electricity for power and can be plugged into the electricity mains. It has a battery pack and electric motor. The vehicle cannot be filled up with any type of fuel.
Plug-in hybrid electric vehicle (PHEV)	Plug-in hybrid vehicle combines both a battery pack and electric motor with an internal combustion engine. Both the electric motor and the internal combustion engine can drive the wheels. The battery is recharged by plugging it into the mains, though it can also be partly recharged when in use. The vehicle requires petrol or diesel to fuel the internal combustion engine.
Electric vehicle (EV)	Encompasses both battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs).
Household ownership	Continuous use of in the household.
Long distance journey (LDJ)	Journeys of 100 miles or more in one direction.
Salary sacrifice	A scheme where an employee can get a new, used or leased vehicle through their employer by giving up a portion of their salary before income tax and National Insurance contributions are deducted.
Vehicle-to-grid (V2G) technology	Allows electric vehicles to export electricity back from their car battery to the grid when it is most needed.
Cross-pavement charging solution (gully charging)	A method of charging an electric vehicle from a home without access to off-street parking. It involves running a charging cable from a home, across a pavement/driveway to charge a vehicle without obstructing the pavement/driveway. The charging cable is often threaded through a protective cover that sits in the “gully” of the pavement.

2 Executive summary

Aims of the study

The Department for Transport (DfT) commissioned Ipsos to undertake a research project on the attitudes and behaviours of battery electric vehicle (BEV) and plug-in hybrid electric vehicle (PHEV) drivers in the UK. The research aimed to inform policy and decision-making by exploring four key aims:

- Understand EV driving patterns
- Explore charging behaviours and experiences both at home and at public chargepoints
- Identify barriers and enablers to EV usage among current EV drivers
- Provide evidence of the impact of recent public chargepoint regulations

Methodology

A nationally representative sample was invited to participate via an online survey between 7th November and 24th November 2024 using the Ipsos iSay panel. The survey was completed by 1,007 electric vehicle (EV) drivers in the UK, with 698 battery electric vehicle (BEV) drivers and 309 plug-in hybrid electric vehicle (PHEV) drivers. Quotas were set on age, gender and region, and were based on a nationally representative panel survey conducted on behalf of DfT (England Drivers and the SRN Survey 2024).

EV drivers who took part in the online survey were invited to take part in a travel and charging diary. Of those that agreed to take part, 80 were invited to take part in the online diary between 21st November and 4th December. The diary was used to collect detailed and granular information about how EV drivers used and charged their vehicles over a two-week period. This involved entering information about all journeys and charges that they made. Over the two-week period, 77 drivers participated (41 BEV drivers and 36 PHEV drivers).

The report focuses on the attitudes and behaviours of EV drivers, irrespective of access to other engine types. The research did not collect data on the general population of drivers who only use internal combustion engine (ICE) vehicles. Therefore, no comparisons are made between EV and ICE only drivers within this report.

Driver profile

The majority of EV drivers in the survey were male (58% BEV, 61% PHEV), aged 35-54 (54% BEV, 57% PHEV), and lived in urban areas of the United Kingdom (81% BEV, 83% PHEV), particularly in the South East and Greater London regions.

Around 7 in 10 EV drivers (BEV 73%, 72% PHEV) had also driven an internal combustion engine (ICE) vehicle in the past 6 months in addition to their BEV or PHEV. Most EV drivers reported their

household had continuous use of the EV they drove (90% BEV, 92% PHEV), with petrol being the most common additional vehicle type (47% BEV, 44% PHEV). The majority of drivers (79%) drove a new BEV or PHEV car or van. Around 2 in 5 EV drivers acquired their current vehicle through a salary sacrifice scheme (40% BEV, 43% PHEV).

Among EV drivers who drove more than one vehicle (61% of the total sample), nearly three quarters (74%) indicated that an EV served as their primary vehicle, with cost to run (56%), driving experience (50%), and environmental impact (50%) being the main factors influencing this choice.

The majority of BEV and PHEV drivers had access to off-street parking (90% and 88% respectively), primarily in the form of a private driveway or garage next to their house (85% for both). Among BEV drivers, rural residents (98%) and those living in the Midlands (97%) were more likely to have access to off-street parking compared to urban residents (89%) and those in the South (86%).

Understanding EV driving patterns

The majority of EV drivers drove their vehicles at least once a week (94% BEV, 90% PHEV), with around 3 in 10 driving daily (29% BEV, 26% PHEV). The most common journey purposes were leisure (70% BEV and PHEV), shopping (63% BEV, 55% PHEV), and commuting (51% BEV and PHEV).

The travel and charging diary evidence found that participants made an average of 15 journeys over a two-week period, with BEV drivers making more journeys than PHEV drivers (17 and 12 respectively) which equates to approximately one journey per day. Journeys using BEVs had a median distance of 11 miles, while journeys in PHEVs were 10 miles on average. Almost half of journeys in PHEVs were made using electric mode for the whole journey.

About half of EV drivers made long distance journeys (100 miles or more) requiring charging about once a month or less (51% BEV, 44% PHEV), with 3 in 10 doing so at least weekly (28% BEV, 36% PHEV). For a long distance journey, 73% of EV drivers would most likely use an EV, including 44% who would most likely use a BEV and 29% who would most likely use a PHEV.

For BEV drivers, the top factors to ensure confidence on long trips were charger availability (64%), vehicle range (62%) and route planning (54%). Compared to all BEV drivers, older (55+) and rural drivers placed higher importance on range and fast charging.

Understanding EV charging behaviours

The vast majority of EV drivers had access to a method of charging at home (91% BEV, 88% PHEV), with BEV drivers more likely to have a dedicated home charger installed (76%) compared to PHEV drivers (53%). Urban BEV drivers, renters, and those without off-street parking were less likely to have home chargers and therefore were more reliant on public charging.

Among those with home charging, most (78%) had the charger installed themselves after the house was built, with only around 11% reporting that the charger was installed by previous owners

or tenants, and a further 10% stating that it was installed whilst the house was being built. Three-quarters (74%) of BEV and 58% of PHEV drivers had smart chargers, allowing for drivers to operate the charger remotely. Among those with non-smart chargers, half (52%) of BEV drivers had a home charger that enabled specific charging times to be set compared to only 36% of PHEV drivers.

BEV drivers with home charging typically charged at least 1-2 times weekly, with overnight charging being slightly more common than daytime charging. Specifically, 86% reported they charge at least 1-2 times a week overnight, whilst 71% reported they charge at least 1-2 times a week throughout the day.

Almost half (49%) of EV drivers had a specific EV tariff. The most common home charging costs for BEVs were 0-9p/kWh (31%), followed by 10-19p/kWh (18%) and 20-29p/kWh (16%). Whereas for PHEVs, the most common home charging costs were 10-19 p/kWh (23%), followed by 0-9 p/kWh (12%) and 20-29p/kWh (11%).

The travel and charging diary evidence found that participants charged their vehicle an average of 4 times over a two-week period. BEV drivers charged more frequently at public chargers compared to PHEV drivers (1.8 times compared to 1.2 times). Over a third (37%) of diary participants did not know the cost of public charge.

The research also explored those who rely on the public chargepoint network. For the 9% of BEV drivers totally reliant on public charging, the most common locations used were business/organisation car parks (27%), dedicated EV charging hubs (23%), and work/school (19%). 42% primarily used 22-49kW chargers and 23% 50kW+ chargers.

Among all EV drivers, dedicated charging hubs were the most frequently used public chargers, with 32% of BEV drivers and 29% of PHEV drivers using these at least once a week. Workplace charging was also common (27% BEV and 33% of PHEV drivers using these at least weekly). Motorway and A-road service areas were used less often.

On journeys, 71% of BEV drivers reported that they would stop to charge when their vehicle's battery was between 10-29% of the total capacity. Most EV drivers reported charging their vehicle's battery to 70% (73% BEV, 60% PHEV).

Barriers and enablers to driving EVs

Around half of UK EV drivers were satisfied with public chargepoint availability in their local area (52%). In England, and focusing on the services available on the strategic road network, around half of EV drivers were satisfied with public chargepoint availability at motorway service areas (56%), and major A-road service areas (50%). However, notable proportions expressed dissatisfaction (24% local, 18% motorways, 22% A-roads). Satisfaction was higher among 17-34 year olds, Greater London, urban residents, and BEV drivers compared to their counterparts.

Over half of EV drivers felt confident taking long journeys (58%) and thought public chargepoints were easy to locate (58%). However, many had concerns about public chargepoints including: unclear pricing (55%), poor reliability (49%), and insufficient provision in relation to demand (47%).

The majority (84%) of EV drivers felt safe using public chargepoints. Feeling unsafe was uncommon (3%) and mainly associated with poor lighting and leaving cars unattended. Men and younger groups felt safer than women and over 55s.

The top improvements desired for the public charging network were cheaper prices (47%), quicker charging (45%), and better reliability (29%). Those without home charging wanted to see more local chargepoints.

EV drivers strongly preferred additional ultra-rapid and rapid chargers at on-route locations like motorways, A-roads and EV charging hubs. For destinations like residential streets, workplaces and car parks, slower chargers were more desired. Home chargers favoured rapid units on motorways and A-roads while those without home charging wanted more local standard chargers.

The majority (78%) of EV drivers intended to get another EV for their next vehicle, favouring BEVs (50%) over PHEVs (28%) and new (76%) compared to used (20%). 88% of BEV drivers and 83% of PHEV drivers would likely recommend their vehicle type. Less than 6% of EV drivers were unlikely to recommend an EV, indicating high satisfaction overall.

3 Background and methodology

3.1 Background

The Department for Transport (DfT) commissioned Ipsos to undertake a quantitative research project on the attitudes and behaviours of battery electric vehicle (BEV) and plug-in hybrid electric vehicle (PHEV) drivers in the UK. The research aimed to inform understanding and policymaking surrounding EV driver usage and charging behaviour, as well as identifying barriers and enablers to driving EVs.

3.2 Research questions

The report seeks to answer the following aims:

- Understand EV driving patterns
- Explore charging behaviours and experiences both at home and at public chargepoints
- Identify barriers and enablers to EV usage among current EV drivers
- Provide evidence of the impact of recent public chargepoint regulations

3.3 Methodology

A nationally representative sample was invited to participate via an online survey between 7th November and 24th November 2024 using the Ipsos iSay panel. The survey was completed by 1,007 electric vehicle (EV) drivers in the UK, with 698 battery electric vehicle (BEV) drivers and 309 plug-in hybrid electric vehicle (PHEV) drivers. The sample included drivers from all four constituent nations of the UK: England (88% of the sample), Wales (4%), Scotland (7%), and Northern Ireland (1%).

Quotas were set on age, gender and region, and were based on the EV driver population profile identified in the England Drivers and the SRN Survey 2024 that used a random probability-based online panel (Ipsos' UK KnowledgePanel). Survey data was weighted using key demographic information to reflect the EV driver population in the UK and provide robust research results. The population profile was again based on the nationally representative panel survey conducted on behalf of DfT (England Drivers and the SRN Survey 2024).

BEV drivers were defined as those who had driven a battery electric car or van in the last six months that they personally owned or had continuous use of, including any company battery-only cars or vans available for personal use. PHEV drivers were defined as those who had driven a plug-in hybrid electric car or van in the last six months that they personally owned or had continuous use of, including any company plug-in hybrid electric cars or vans available for personal use.

In households of more than one person, no data was collected about other household members and how they may use the same BEV or PHEV.

EV drivers who took part in the online survey were invited to take part in a travel and charging diary. Of those that agreed to take part, 80 were invited to take part in the online diary between 21st November and 4th December. The diary was used to collect detailed and granular information about how EV drivers used and charged their vehicles over a two week period. This involved entering information about all journeys and charges that they made. Over the two week period, 77 drivers participated (41 BEV drivers and 36 PHEV drivers).

3.4 Interpreting the report

The total sum of answer codes may appear to be higher/lower than 100% and combinations might not sum to their constituent parts (e.g. 'agree' relative to 'strongly agree'/'tend to agree'). This is due to the rounding of results to the nearest whole number.

This report has three different samples with different weighting approaches:

- BEV and PHEV combined sample: This sample is representative of the total EV driver population in the UK.
- BEV sample: This includes BEV drivers and BEV drivers who had also driven a PHEV. This sample is representative of BEV drivers in the UK.
- PHEV sample: This only includes drivers who had driven a PHEV and had not driven a BEV. This sample is representative of PHEV (non-BEV) drivers in the UK.

Each sample was weighted using population profiles based on a nationally representative panel survey conducted on behalf of DfT (England Drivers and the SRN Survey 2024).

To indicate which sample the chart represents, please refer to the base of the chart, where the sample will be displayed as 'EV drivers', 'BEV drivers' or 'PHEV drivers'. On charts where two different samples are shown, for example 'BEV and PHEV drivers', this means the samples have been weighted independently to ensure they are representative of their respective populations.

The survey results were compiled into data tables featuring demographic and attitudinal cross-tabulations, with significance testing performed at the 95% confidence level.

This comprehensive methodological approach provides robust insights into EV usage patterns among residents in the UK, supporting future research and policy formulation.

4 Driver profile

This chapter presents findings on household vehicle ownership and engagement with salary sacrifice schemes. It also examines vehicle characteristics such as whether the vehicle was new or used, advertised vehicle battery range, primary vehicle engine type and factors influencing the use of primary vehicle. Finally, this chapter examines parking access, specifically off-street parking.

4.1 Summary

- Around 4 in 5 drivers reported driving a new EV (79%), with only a minority reporting that they drove a used EV (21%).
- Almost three quarters of EV drivers who drove more than one vehicle said they drove a BEV or a PHEV most often (74%). Cost to run was a major influencer in determining which vehicle drivers used most often.
- Around two thirds (68%) of BEV drivers had driven a battery electric vehicle with an advertised range of 201+ miles.
- The majority of BEV and PHEV drivers had access to off-street parking (90% and 88% respectively).
- Of those who had access to off-street parking, the majority of BEV and PHEV drivers (85%) had access to a private driveway or a garage next to their house. For those who did not have access to off-street parking, the most common parking location was in front of, or near their home (BEV 47%, PHEV 68%).

4.2 Demographic profile

Among BEV drivers, 58% were male and 41% were female. Similarly, 61% of PHEV drivers were male and 38% were female. The age distribution was comparable for both BEV and PHEV drivers. The majority were within the 35-54 age group (54% BEV, 57% PHEV), followed by the 55-65 age group (22% for both) and the 17-34 age group (24% BEV, 21% PHEV).

EV drivers living in England were distributed across the regions. The South East and Greater London had the highest representation among BEV drivers, with 15% and 16% respectively. PHEV drivers were also concentrated in Greater London, accounting for 22% of the sample. Other regions in England had relatively similar representation among BEV and PHEV drivers, ranging from 6% to 13%.

The majority of EV drivers lived in urban areas, with 81% of BEV drivers and 83% of PHEV drivers falling into this category. Rural areas accounted for a smaller proportion, with 17% of BEV drivers and 15% of PHEV drivers living in these locations.

Around 4 in 10 (45% for BEV and PHEV drivers) bought their home on a mortgage, with an additional 4 in 10 (41% for both) drivers stating that they owned their homes outright. In total, 86% of BEV and

PHEV drivers were homeowners. Renting was less common, with 9% of BEV drivers and 7% of PHEV drivers renting privately.

More information regarding the demographic breakdown of the sample can be found in Appendix A.

4.3 Vehicle usage in the past 6 months

Almost half (47%) of BEV drivers had driven a petrol vehicle in the past 6 months for personal use. Other common engine types driven included plug-in hybrid (18%) and diesel (18%) (Appendix C, Table 9.1).

In comparison, 4 in 10 PHEV drivers had driven a petrol vehicle for personal use in the past 6 months. This was followed by a diesel vehicle (24%) and a non-plug-in hybrid (7%) (Appendix C, Table 9.1).

4.4 Household vehicle access

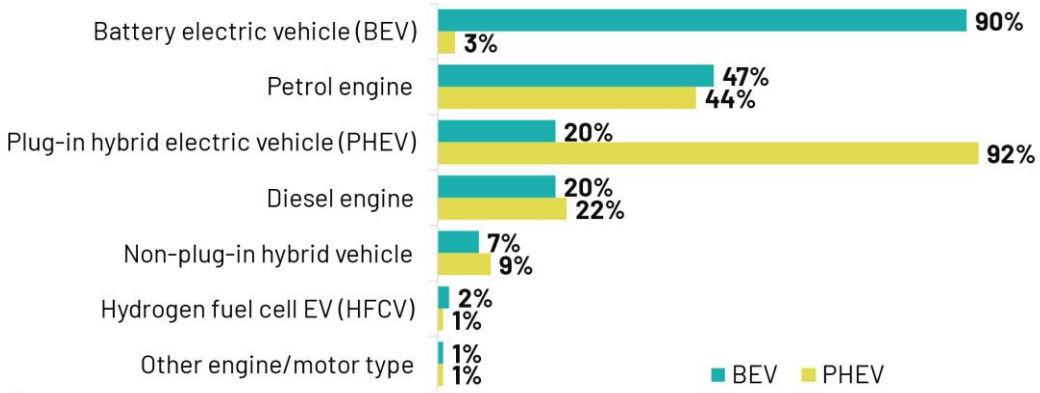
EV drivers were defined as those who had driven a BEV or PHEV in the last six months that they personally owned or had continuous use of, including any company cars or vans available for personal use. In contrast, household vehicle access was defined as the EV drivers' household having continuous access to a car or van.

Most EV drivers reported that their household had continuous use of an EV: 90% with continuous use of a BEV and 92% with continuous use of a PHEV. Whereas 10% of BEV drivers stated that their household did not have continuous access to a BEV and 8% of PHEV drivers stated that their household did not have continuous access to a PHEV.

These apparent discrepancies may be due to various factors, such as the BEV or PHEV being a company car that the driver does not consider their household to have continuous access to, or the BEV or PHEV being the driver's personal car and not available for other household members to use. Consequently, these drivers may not consider the EV as being continuously accessible to their household.

Among BEV drivers, other common engine types their households had continuous access to included petrol (47%), plug-in hybrid (20%) and diesel (20%). Among PHEV drivers, petrol (44%) and diesel (22%) were other common engine types households had access to (Figure 4.1).

Figure 4.1: Household vehicle access



BEV and PHEV drivers
B1. Please indicate in the table below how many cars or vans your household have continuous use of, according to the categories below.
Base: UK adults aged 17-65: BEV drivers (698), PHEV drivers (309)

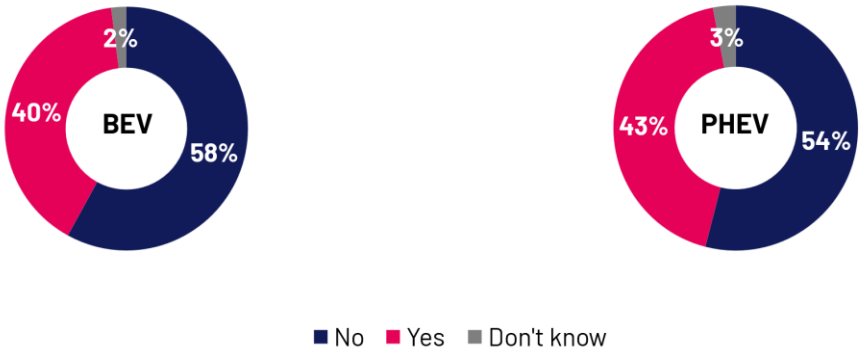
One third (33%) of BEV drivers indicated that their household only had continuous access to a BEV. Whereas over half (57%) of BEV drivers reported that their household had continuous use of a BEV and at least one other vehicle engine type. The most common additional vehicles were petrol (72%), followed by PHEV (29%), diesel (28%), and non-plug-in hybrids (11%).

A similar pattern emerged for PHEV drivers. Around four in ten (37%) indicated their household only had continuous use of a PHEV. Half (55%) reported their household had continuous access to a PHEV and at least one other vehicle engine type.

4.5 Vehicle purchase methods

Around 2 in 5 EV drivers acquired their current vehicle through a salary sacrifice scheme (see Glossary (Table 1.1) for definition) (43% PHEV, 40% BEV) (Figure 4.2).

Figure 4.2: EV acquisition through a salary sacrifice scheme



BEV and PHEV drivers
B2a/b. Thinking about any [battery electric vehicles (BEV)/plug-in hybrid electric vehicles (PHEV)] your household has continuous use of, are any leased or purchased through salary sacrifice?
Base: UK adults aged 17-65 who have a battery/plug-in hybrid electric vehicle in the household: BEV (629), PHEV (288)

There were some differences in subgroups, in particular:

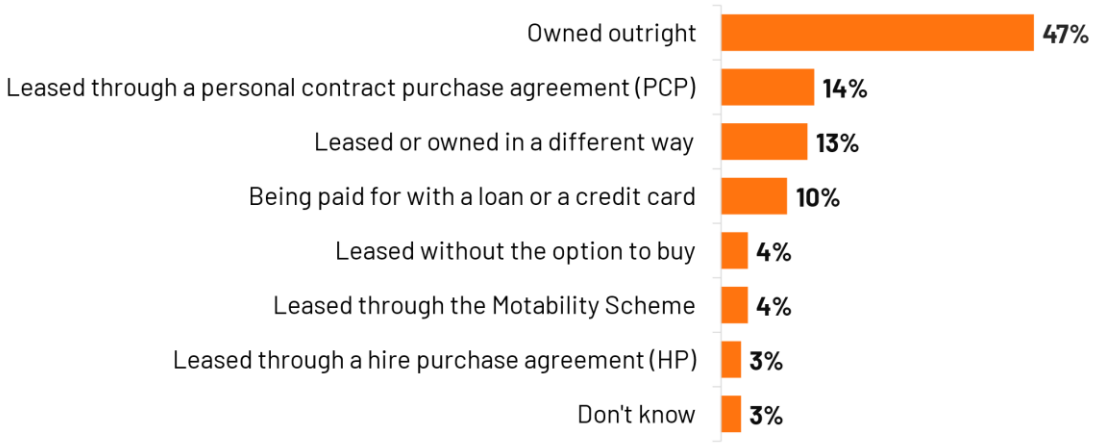
- Among BEV drivers, those aged 17-34 were more likely to have purchased their vehicle through salary sacrifice (57%) compared to those aged 35-54 (40%) and aged 55-65 (22%). A similar pattern emerged among PHEV drivers, with 17-34 year olds more likely to have purchased their vehicle through salary sacrifice (76%) compared to 35-54 and 55-65 year olds (43% and 16%) respectively. It is important to note that the base sizes for the age groups among PHEV drivers are small and should be treated with caution.

Around 4 in 5 EV drivers drove a new BEV or PHEV car or van (79%), with only a minority reporting that they drove a used car or van (21%) (Appendix C, Table 9.3). There were a few differences in subgroups:

- Those aged 17-34 were more likely to drive a new EV (87%) compared to those aged 35-54 (79%) and 55-65 (70%). Those aged 55-65 were more likely to drive a used vehicle (29%) compared to those aged 17-34 (13%) and 35-54 (21%).

When asked the method of acquiring their EV, almost half (47%) of EV drivers reported that they owned the vehicle outright[1]. The next most common acquisition methods were leasing through a personal contract purchase agreement (PCP) (14%), and leasing or owning in a different way (13%) (Figure 4.3).

Figure 4.3: Purchase method used for acquiring EV



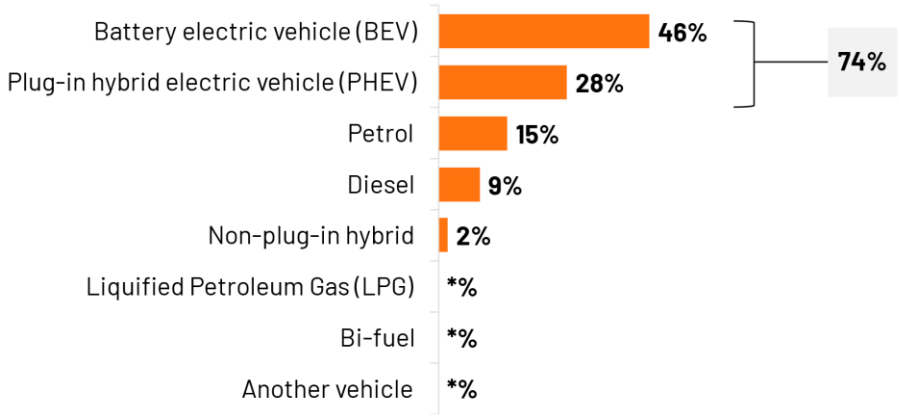
EV drivers
B8b. And also, from the following options, what best describes the battery electric vehicles (BEV)/plug-in hybrid electric vehicles (PHEV) you drive most often currently?
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months: EV (1007)

Among EV drivers who drove more than one vehicle (62% of the total sample), nearly three quarters

[1] The questions on salary sacrifice and purchase method for acquiring EV are self-reported and therefore participants who selected they acquired their BEV through salary sacrifice at B2a/b may have selected 'owned outright' rather than 'leased' at B8b

(74%) indicated that an EV served as their primary vehicle. Almost half (46%) specified that a BEV was their main vehicle and 28% stated it was a PHEV. This was followed by petrol (15%), diesel (9%), and non-plug-in hybrid (2%) (Figure 4.4).

Figure 4.4: Primary vehicle type of those among multiple vehicle users



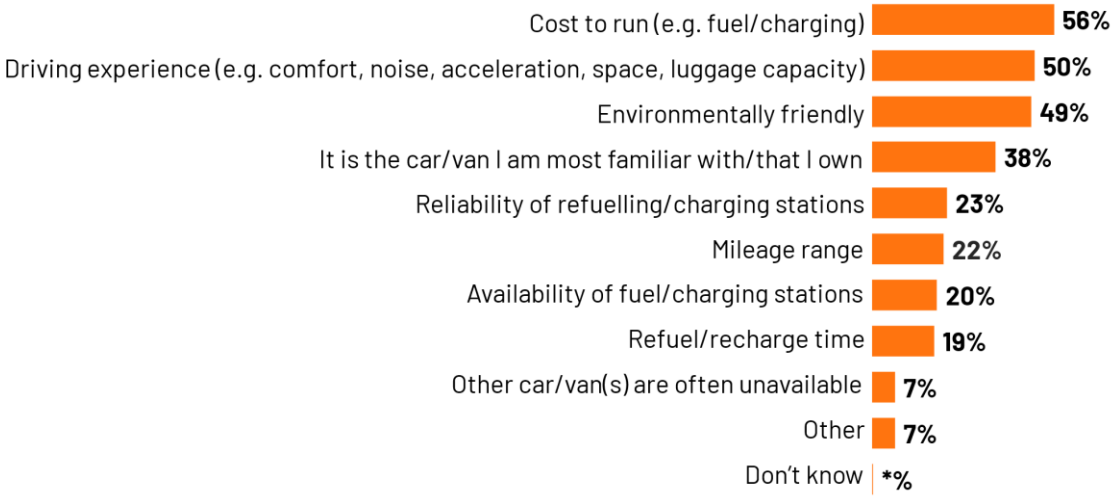
EV drivers
B3. The car or van I drive most often is a...
Base: UK adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle and another type of vehicle: EV (618)

Among these EV drivers, almost half (46%) reported using their BEV as their primary vehicle compared to just under a third (28%) using their PHEV as their primary vehicle.

Cost to run (56%), driving experience (50%), and environmental impact (49%) were the main factors influencing which vehicle drivers used most often (Figure 4.5). A similar pattern emerged among those who used a BEV most often, citing cost to run (69%), environmental impact (67%), and driving experience (56%) as the main reasons. Conversely, familiarity with the vehicle (52%), cost to run (31%), driving experience (29%) were cited as the main reasons why drivers chose to drive an internal combustion engine (ICE)[2] most often (Figure 4.6).

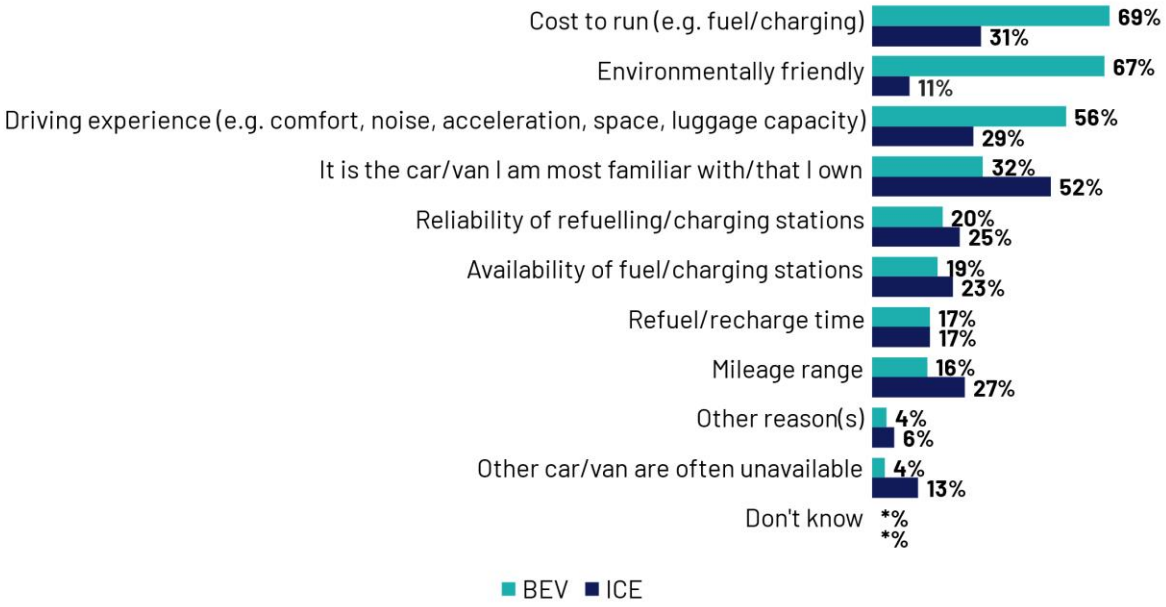
[2] This includes petrol, diesel, non-plug-in hybrid, bi fuel and LPG

Figure 4.5: Reasons for using primary vehicle type most often among multiple vehicle users



EV drivers
B4. Why do you use this car or van most often?
Base: UK adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle and another type of vehicle: EV (618)

Figure 4.6: Reasons for using BEV or internal combustion engine most often



BEV drivers who drive a BEV most often and BEV drivers who drive an ICE vehicle most often
B4. Why do you use this car or van most often?
Base: UK adults aged 17-65 in the UK who have driven a battery and another type of vehicle: Selected BEV as used most often (285), Selected an internal combustion engine as used most often (165)

There were some demographic differences among all drivers who use an EV and another vehicle type:

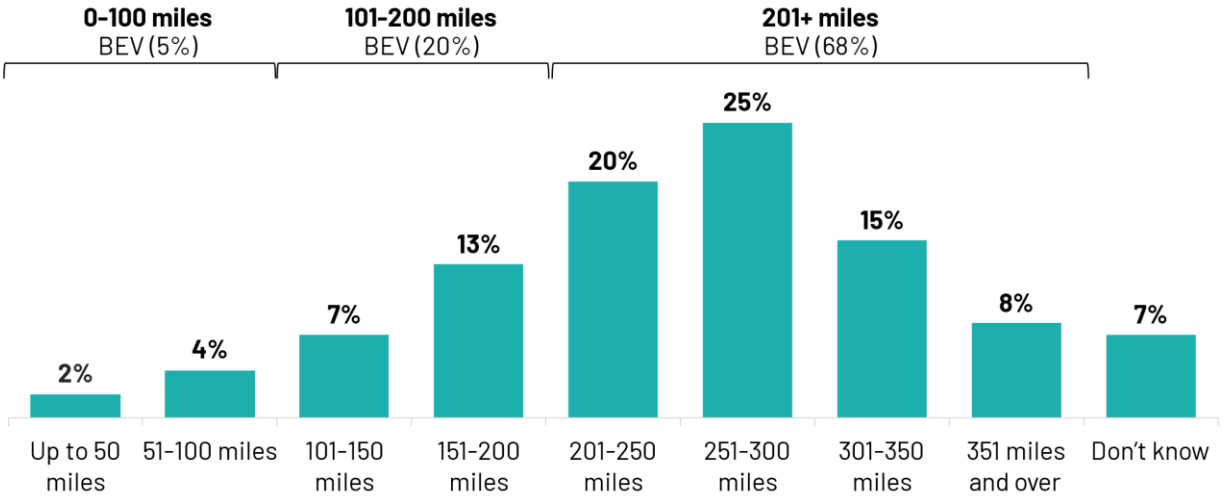
- Those aged 17-34 were more likely to cite environmental factors (environmentally friendly) as an important factor (60%) compared to those aged 35-54 (44%). This was also the case in comparison to those aged 55-65 (48%) however this should be treated with caution due to small base size of the age group.

- Those aged 17-34 were also more likely to report that reliability of refuelling/recharging stations is an important factor (43%) compared to 35-54 and 55-65 year olds (16% and 12% respectively).

- Those who first drove a BEV before 2023 (n=262) were more likely to cite the following as important factors compared to those who first drove a BEV in 2023 and onwards: refuel/recharge time (23% compared to 10%), reliability of refuelling/charging stations (28% compared to 16%), environmental factors (environmentally friendly) (60% compared to 44%), and driving experience (56% compared to 44%).

Around two thirds (68%) of BEV drivers drove a BEV with an advertised range of 201+ miles, followed by 20% 101-200 miles and 5% 0-100 miles (Figure 4.7).

Figure 4.7: Advertised range of BEV



BEV drivers
B11a. What is the advertised range of the battery electric vehicle (BEV) that you drive?
Base: UK adults aged 17-65 who have driven a battery electric vehicle for personal use in the last 6 months: BEV (698)

4.6 Parking access

The majority of BEV and PHEV drivers had access to off-street parking (90% and 88% respectively). Only a small percentage of drivers sampled had no access to off-street parking (9% BEV, 11% PHEV) (Appendix C, Table 9.4).

There were some subgroup differences to note:

- BEV drivers in the Midlands were more likely to have access to off-street parking (97%) compared to those in the South (86%).

- Rural residents who drove a BEV were more likely than average to have access to off-street parking (98%) in comparison to those living in urban areas (89%).

For those who had access to off-street parking (BEV n=631, PHEV n=273), the majority reported having access to a private driveway or garage next to their house (85% BEV, 85% PHEV). This was followed by private driveway or garage not next to their house (6% BEV, 5% PHEV), and communal car park with an allocated space (6% BEV, 6% PHEV) (Appendix C, Table 9.5).

Among those who did not have access to off-street parking (BEV n=80, PHEV n=31), the most common parking location was in front of or near their home, either in an allocated space (BEV n=19, PHEV n=2) or in an unallocated space (BEV n=28, PHEV n=23) (Appendix C, Table 9.6).

5 Understanding EV driving patterns

This section explores the driving patterns of EV drivers, including frequency of driving an EV, distances typically driven in a week, and journey purposes. This section also covers long distance journeys and factors that would instil confidence in EV drivers undertaking these journeys.

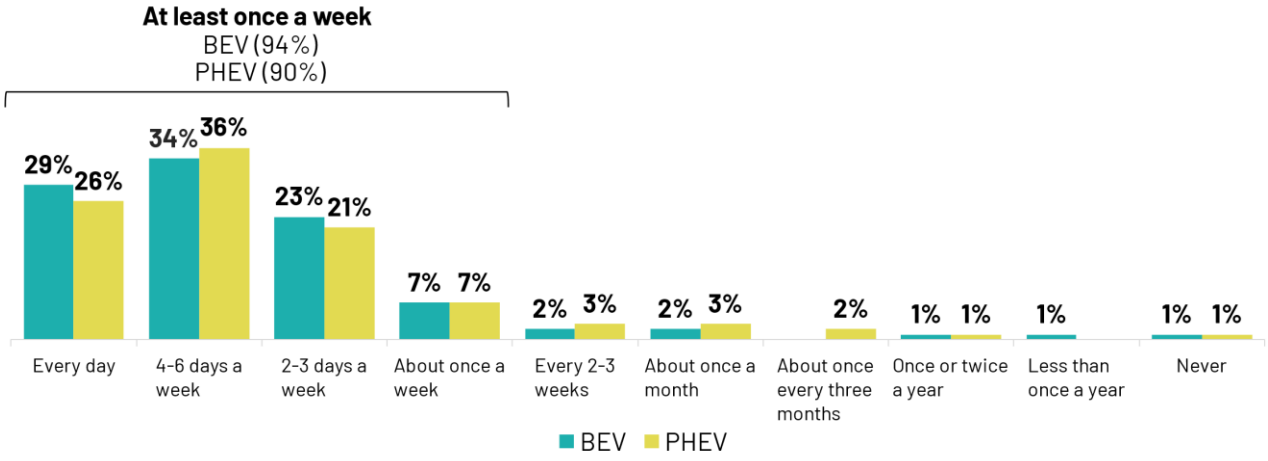
5.1 Summary

- The majority of BEV (94%) and PHEV drivers (90%) drove their vehicles at least once a week, with around 3 in 10 using daily (29% BEV, 26% PHEV).
- Most BEV (64%) and PHEV (72%) drivers drove up to 100 miles a week on average, with only 1 in 10 driving over 201 miles a week using a BEV or PHEV (12% and 12% respectively).
- When driving an EV, leisure, access to services, and commuting were the most common journey purposes.
- Half of BEV (51%) and just under half of PHEV (44%) drivers made long distance journeys (journeys of 100 miles or more) that required charging on route about once a month or less often. In contrast, around 3 in 10 drivers (28% BEV, 36% PHEV) reported driving long distance journeys at least once a week.
- Almost three quarters (73%) of EV drivers would most likely use an EV for a journey of 100 miles or more, with 44% most likely using a BEV and 29% a PHEV.
- Charger availability (50kW and over) (64%), vehicle range (62%), and route planning (54%) were the most important factors ensuring BEV drivers' confidence in making long distance journeys.

5.2 General driving patterns

The majority of EV drivers drove a BEV or PHEV at least once a week (94% and 90% respectively), with around 3 in 10 driving daily (29% BEV and 26% PHEV) (Figure 5.1).

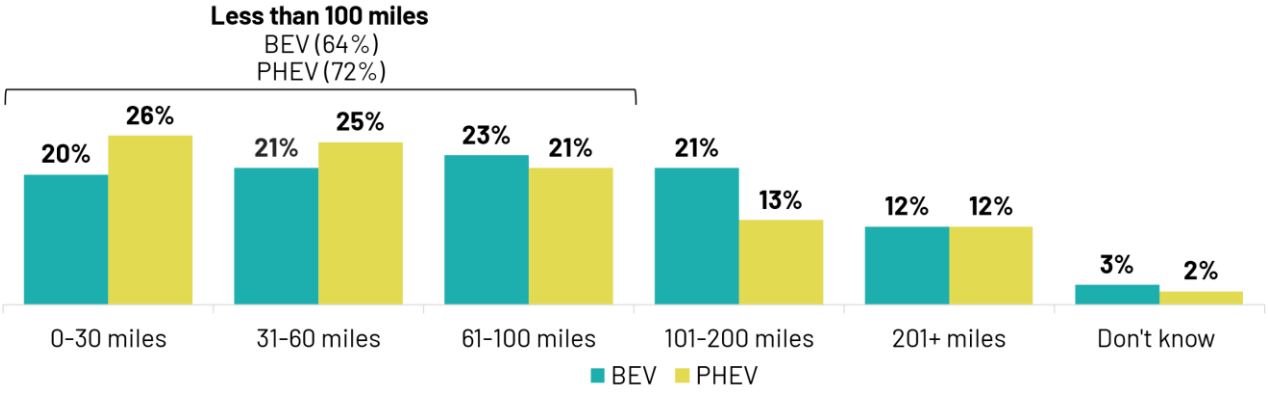
Figure 5.1: Average frequency driving a BEV or PHEV in the past month



BEV and PHEV drivers
C1a/b. Thinking about the past month, on average, how often do you personally drive a [battery electric vehicle (BEV)/plug-in hybrid electric vehicles (PHEV)]?
Base: UK adults aged 17-65 UK who have driven battery/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

EV drivers were mostly driving up to 100 miles a week on average (BEV 64%, PHEV 72%). Around 2 in 10 BEV drivers (21%) and 1 in 10 PHEV drivers (13%) drove 101-200 miles a week. Only 1 in 10 drove over 201 miles a week on average using a BEV or PHEV (12% and 12% respectively) (Figure 5.2).

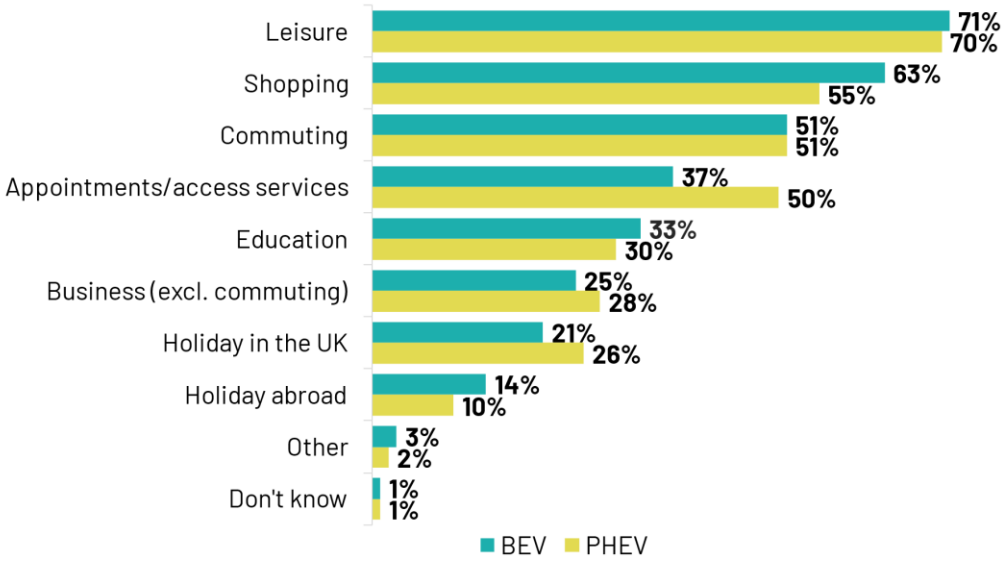
Figure 5.2: Average miles driven using a BEV or PHEV in a week



BEV and PHEV drivers
C2a/b. On average, how many miles do you drive in a week using the [battery electric vehicle (BEV)/plug -in hybrid electric vehicles (PHEV)] you drive most often?
Base: UK adults aged 17-65 UK who have driven battery/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

Leisure (71% BEV, 70% PHEV), shopping (63% BEV, 55% PHEV), and commuting (51% BEV, 51% PHEV) were the most common journey purposes when driving an EV (Figure 5.3).

Figure 5.3: Reasons for driving BEV or PHEV in the past month



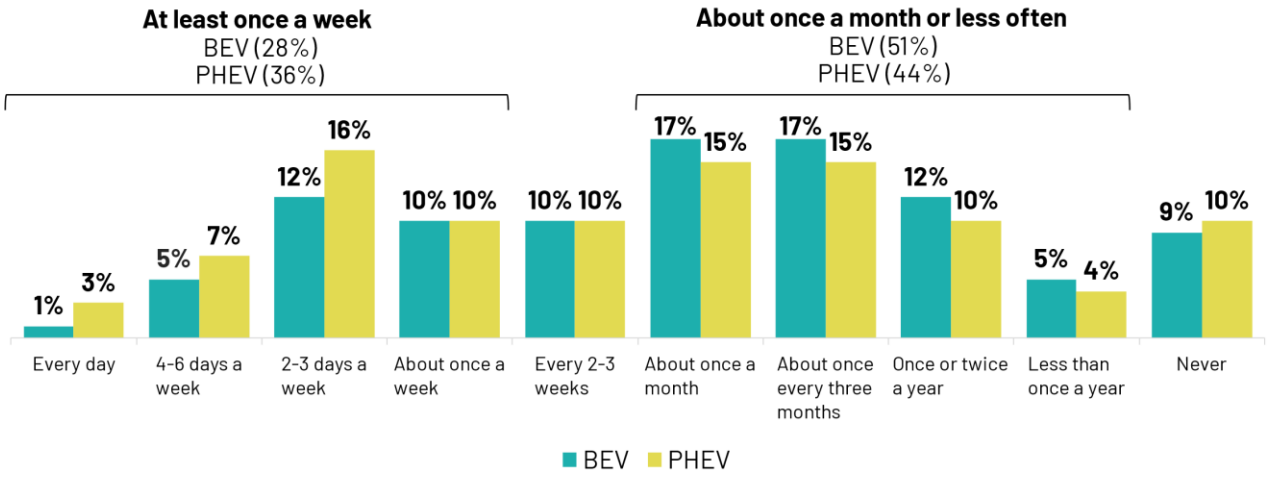
BEV and PHEV drivers
C4a/b. Thinking about the last month, for which of these reasons, if any, have you driven the [battery electric vehicle (BEV)/plug-in hybrid electric vehicles (PHEV)] you drive most often?
Base: UK adults aged 17-65 UK who have driven battery/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

5.3 Driving patterns on long distance journeys

Around half of BEV and PHEV drivers drove long distance journeys (see Glossary (Table 1.1) for definition), where they may need to stop and charge, about once a month or less often (51% and 44% respectively). About 3 in 10 (28% BEV, 36% PHEV) drove long distance journeys involving charging at least once a week[3]. In contrast, around 1 in 10 (9% BEV, 10% PHEV) had never driven a long distance journey that involved charging (Figure 5.4).

[3] The questions on average miles driven in a week and frequency of driving long distance journeys that involve charging are self-reported and therefore participants who stated that they drive over 100 miles in a week at C2a/b may have reported differently in C3a/b. 3 in 10 BEV drivers reported that they drove a long distance journey that needs a charge on route once a week, while 2 in 10 drivers reported that they drove more than 100 miles in an average week.

Figure 5.4: Frequency of driving long distance journeys that may involve charging



BEV and PHEV drivers

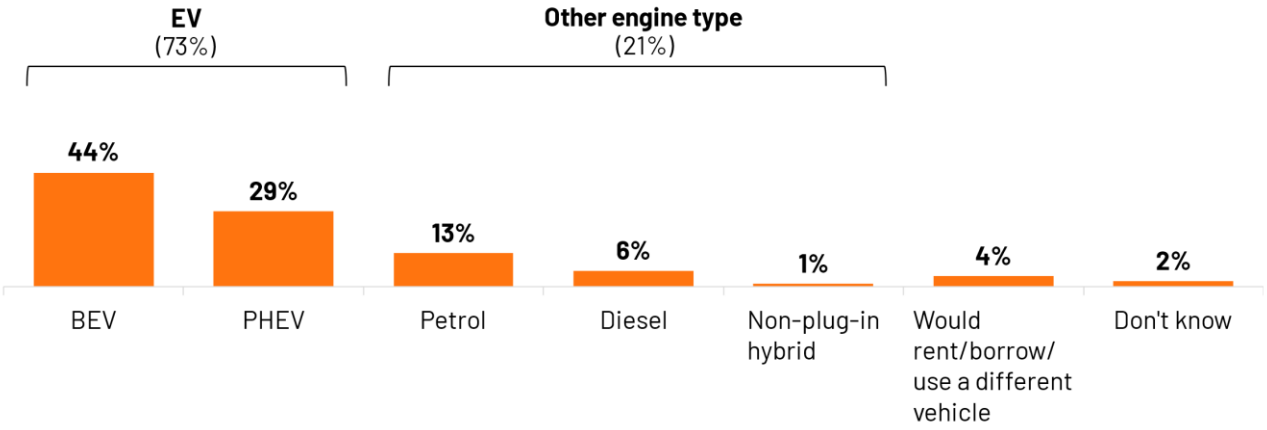
C3a/b. How often, if at all, do you typically drive long distance journeys in the [battery electric vehicle (BEV)/plug-in hybrid electric vehicles (PHEV)] you drive most often, where you may need to stop and charge your car or van?
Base: UK adults aged 17-65 UK who have driven battery/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

Some subgroup differences included:

- BEV drivers living in urban areas were more likely to have made long distance journeys at least once a week compared to those living in rural areas (31% and 19% respectively).
- Younger EV drivers (aged 17-34) were more likely to have driven their vehicles at least weekly compared to older age groups. Among BEV drivers, 54% of those aged 17-34 reported driving their vehicles at least weekly compared to 25% of 35-54 year olds and 10% of 55-65 year olds. A similar pattern was apparent among PHEV drivers, with 64% of PHEV drivers aged 17-34 driving their vehicles at least weekly (compared to 32% of 35-54 year olds and 21% of 55-65 year olds). However, the small sample sizes for age groups means this pattern among PHEV drivers should be treated with caution.

Almost three quarters (73%) of EV drivers said they would most likely use an EV for a journey of 100 miles or more, with 44% most likely using a BEV and 29% a PHEV (Figure 5.5).

Figure 5.5: Vehicle engine/motor type preference for long distance journeys



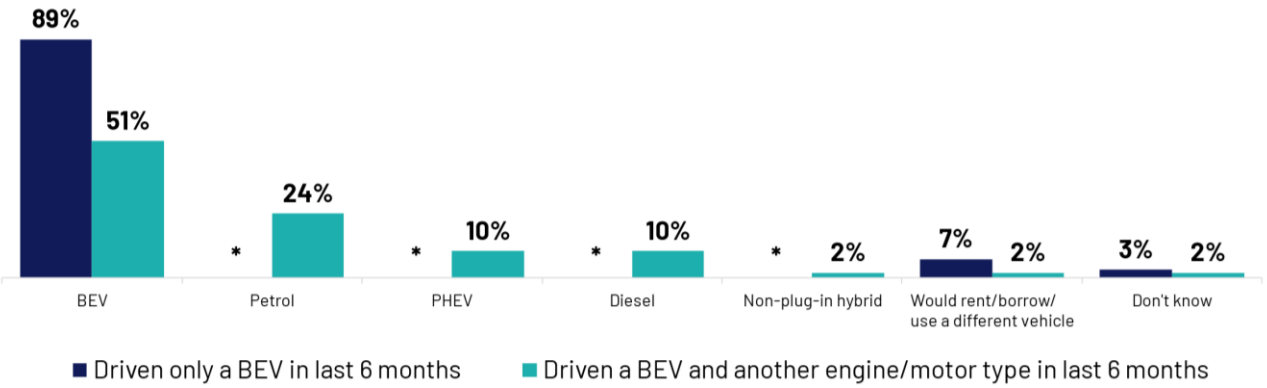
EV drivers
C5a. If you were planning to drive 100 miles or more, which of the following car or van engine/motor type(s) that you have access to would you most likely use?
Base: UK adults aged 17-65 UK who have driven battery/plug-in hybrid electric vehicle for personal use in the last 6 months (1007)

Continuing to look at engine preference for long distance journeys, analysis then compared differences between BEV drivers that had only driven a BEV and those that had also driven another engine type in the last six months (Figure 5.6).

Among BEV drivers who had also driven another vehicle type, 51% said they would most likely use a BEV for a journey of 100 miles or more. This suggests that even with the option of using a different engine type, about half still preferred to use a BEV for long distance journeys.

Among those who had only driven a BEV in the last six months, 89% would most likely use a BEV for a journey of 100 miles or more.

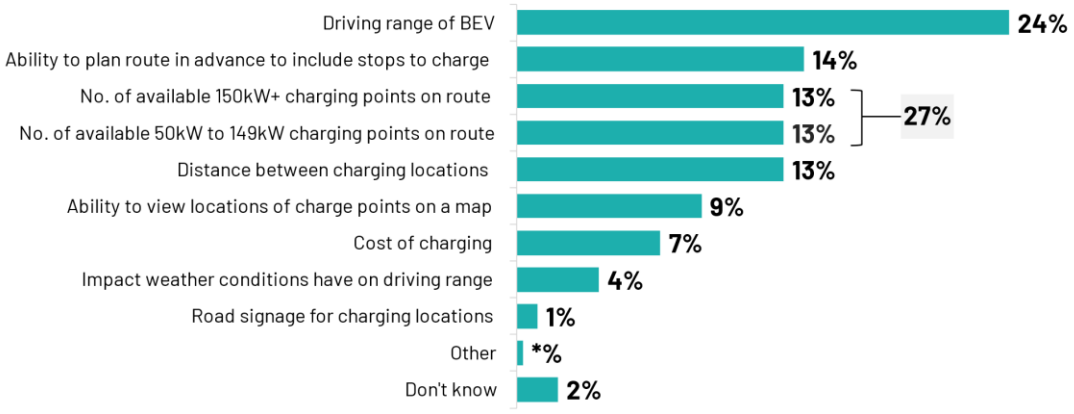
Figure 5.6: BEV driver vehicle engine/motor type preference for long distance journeys



BEV drivers
C5a. If you were planning to drive 100 miles or more, which of the following car or van engine/motor type(s) that you have access to would you most likely use?
Base: UK adults aged 17-65 UK who have driven battery electric vehicle for personal use in the last 6 months: BEV only (254), BEV and another engine type (444)

When BEV drivers were asked what factors would ensure their confidence making long distance journeys in a BEV, charger availability (50kW and over) (64%), vehicle range (62%), and route planning (54%) were selected the most frequently (Appendix C, Table 9.7). When asked which was *the most important factor* in ensuring confidence, the same three factors were selected: charger availability (50kW and over) (27%), vehicle range (24%), and advance route planning (14%) (Figure 5.7).

Figure 5.7: Most important factor that would make BEV drivers confident making long distance journeys



BEV drivers
C8. Which is the most important factor to ensure you were confident driving a battery electric vehicle (BEV) if you were making a journey of 100 miles or more as a driver? That is a journey in only one direction .
Base: UK adults aged 17-65 UK who have driven a battery electric vehicle for personal use in the last 6 months (698)

There were differences among subgroups concerning what factors were important (all response options selected) in ensuring driver confidence when making long distance journeys in a BEV:

- Access to rapid charging infrastructure was a more critical factor for older age groups. 68% of participants aged 55-65 and 68% of those in the 35-54 age group selected charger availability (50kW and above). In comparison, only 51% of 17-34 year olds selected this.
- 55-65 and 35-54 year olds were also more likely compared to 17-34 year olds to say vehicle range was an important factor (74% and 62% compared to 49% respectively).
- Rural residents were more likely to say vehicle range (70%) was an important factor compared to urban residents (60%).

There were similar differences among subgroups concerning what factors were the *most* important in ensuring driver confidence when making a long distance journey in a BEV (one response option selected):

- Older age groups placed a higher importance on having access to fast charging infrastructure. Those aged 55-65 and 35-54 were more likely to select charger availability (50kW and over) (31% and 28% respectively) compared to 17-34 year olds (18%).

- 55-65 year olds were also more likely compared to other age groups to say vehicle range is the most important factor (32% compared to 23% of 35-54 year olds and 18% of 17-34 year olds).
- Rural residents were more likely to say vehicle range is the most important factor (33%) compared to urban residents (21%).

6 Understanding EV charging behaviour

This section investigates the charging habits of EV drivers, including charger access, charging frequency, and preferred charging times. For drivers who have a home charger, this section examines who has access to home charging and the types of home chargers used. Among those reliant on the public chargepoint network, the locations and types of public chargepoints drivers rely on are explored.

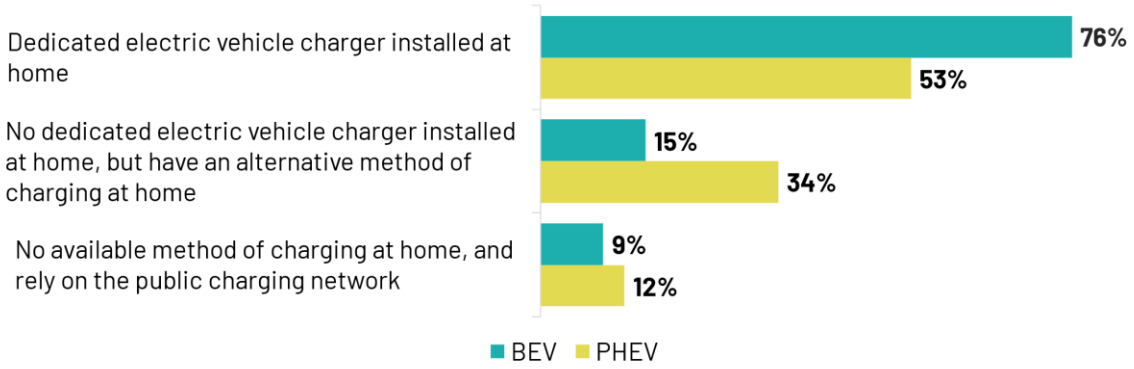
6.1 Summary

- The majority of EV drivers had a method of charging at home, with a higher percentage of BEV drivers (76%) having a dedicated home charger compared to PHEV drivers (53%).
- BEV drivers living in rural areas were more likely to have a dedicated home charger.
- Those who used a BEV as their primary vehicle were also more likely to have a home charger.
- Among those who had a home charger, around 7 in 10 BEV drivers and 6 in 10 PHEV drivers had a smart home charger.
- BEV drivers who could charge at home tended to charge overnight more often than during the day.
- The most common home charging frequency for both BEV and PHEV drivers was 1-2 times per week overnight (33% BEV,24%PHEV) as well as during the day (33% BEV, 30% PHEV).
- Around 1 in 10 EV drivers relied on the public charging network (PHEV drivers 12% and BEV drivers 9%). Among BEV drivers reliant on public chargepoints (n=63), the most commonly used locations included chargepoints at a business' or organisation's car park (27%), dedicated EV charging hub (23%), and at work or place of education (19%).
- The most frequently used public chargepoint location among all BEV drivers regardless of home charger access was dedicated EV charging hubs, with 32% charging there 1-2 times per week or more.

6.2 Access to EV charging methods

The majority of BEV and PHEV drivers reported having access to a method of charging at home (91% and 88% respectively). A higher percentage of BEV drivers reported having a *dedicated vehicle charger* installed at home (76%) compared to PHEV drivers (53%), with PHEV drivers more likely to have an alternative method of charging at home (e.g. running an extension cable through their window or letterbox) (34% PHEV compared to 15% BEV). Around 1 in 10 drivers had no available method of charging at home and rely on the public charging network (9% BEV, 12% PHEV) (Figure 6.1).

Figure 6.1: Access to charger at home



BEV and PHEV drivers
E1a/b. Which of these statements best describes your access to a charger for the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] you drive most often at home?
Base: UK adults aged 17-65 UK who have driven battery/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

There were some differences across subgroups:

- Those living in rural areas were more likely to have a dedicated home charger for their BEV (84%) compared to those living in urban areas (74%). This pattern was not observed among PHEV drivers.
- Those living in the Midlands were more likely to have a dedicated home charger for their BEV (82%) compared to those living in the South of England (74%). Conversely, those living in the South of England were more likely to have no available method of charging their BEV at home (13%) compared to those living in the North of England (6%) and the Midlands (3%).
- Those who first drove a BEV before 2023 were more likely to have a dedicated home charger compared to those who first drove from 2023 and onwards (80% and 71% respectively). A similar pattern was identified among PHEV drivers; those who first drove a PHEV before 2023 were more likely to have a dedicated home charger for their PHEV (62%) compared to those who first drove from 2023 and onwards (41%).
- Those who consider a BEV their primary vehicle were more likely to have a dedicated charger at home (82%) compared to those who did not consider it their primary vehicle (67%). In contrast, those whose BEV was not their primary vehicle were more likely to rely on public charging network (13%) compared to primary BEV drivers (6%).
- Those who rent privately were more likely to have no available method of charging their BEV at home (28%) compared to those who owned outright or bought on mortgage (6%). BEV drivers who do not have access to off-street parking were more likely to not have a method of charging at home compared to those who do have access to off-street parking (n=27 and n=32 respectively). Findings should be treated with caution due to the small base sizes.

6.2.2 Home charging

Among EV drivers who had a home charger, around 8 in 10 (78%) stated that their home charger was installed by themselves or by another household member after the house was built. Around 1 in 10 (11%) reported that their home charger was installed after the house was built by previous owners or tenants, and a further 10% reported that their home charger was installed whilst the house was being built (Appendix C, Table 9.11).

Most (73%) EV drivers who had a home charger reported that no one outside their household used it, with only 26% reporting that someone outside of the household had access to their at-home charger. Around 1 in 7 (15%) provided access to their at-home charger at a cost and another 1 in 10 (11%) provided access for free (Appendix C, Table 9.12). There were some subgroup differences:

- Those aged 17-34 were more likely to provide access to their at-home charger at a cost (29%) compared to other age groups (13% aged 35-54, 7% aged 55-65).
- Those living in urban areas were more likely to provide access to their at-home charger at a cost compared to those living in rural areas (17% and 7% respectively).
- EV drivers living in rural areas were more likely to restrict access to their at-home charger, with 81% of rural residents limiting charger use to household members compared to 71% of urban residents.

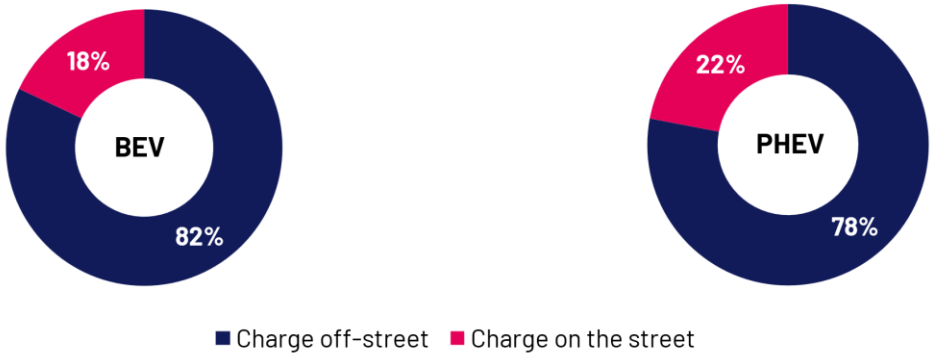
Around 7 in 10 (74%) BEV drivers and 6 in 10 (58%) PHEV drivers that had access to a method of charging at home had a smart home charger that was connected to the internet so it could be operated remotely. PHEV drivers were more likely to have a non-smart home charger compared to BEV drivers (37% compared to 24%) (Appendix C, Table 9.8).

Of those who had a non-smart home charger (BEV n=144, PHEV n=94), around half (52%) of BEV drivers could set a specific time period for the vehicle to be charged while around 4 in 10 (43%) could not. In contrast, fewer PHEV drivers reported being able to set a specific time period (36%) with around half (54%) stating they could not set a specific time period (Appendix C, Table 9.9).

6.2.3 Alternative method of charging at home

Among EV drivers who did not have a dedicated home charger but had an alternative method of charging at home, around 8 in 10 charged off-street (82% BEV, 78% PHEV) (Figure 6.2).

Figure 6.2: Charging on-street or off-street among those with an alternative method of charging at home



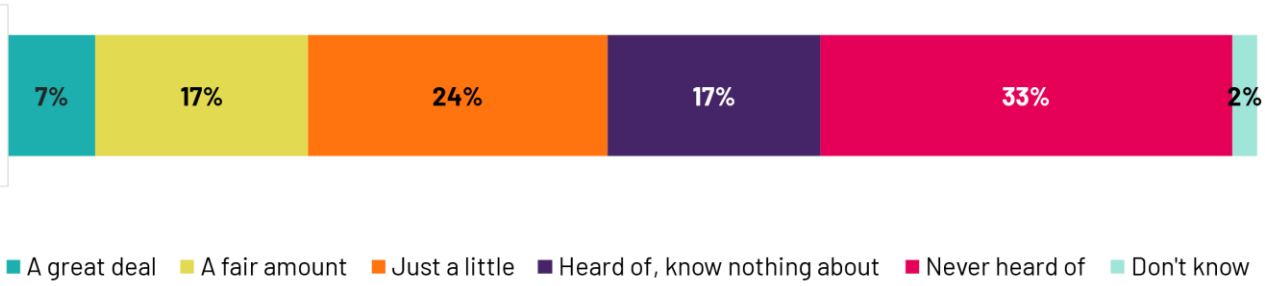
BEV and PHEV drivers
E1c/d. Which of these statements best describes how you typically charge the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] you drive most often at home?
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle and have an alternative method of charging: BEV (105), PHEV (103)

EV drivers who had an alternative method of charging on street were asked about their awareness of cross-pavement charging solutions (see Glossary (Table 1.1) for definition). Of those aware of cross-pavement charging solutions (n=23), around half (n=12) had a cross-pavement solution installed (Appendix C, Table 9.10). Please note that the findings should be treated with caution due to the low base sizes.

6.2.4 Vehicle-to-grid technology

Around two thirds (65%) of EV drivers were aware of vehicle-to-grid (V2G) technology (see Glossary (Table 1.1) for definition), with one third (33%) having never heard of it (Figure 6.3).

Figure 6.3: Awareness of vehicle-to-grid technology



EV drivers
E14. Before today, how much, if anything, would you say you know about "vehicle -to-grid" technology, sometimes shortened to "V2G"?
Base: Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months: EV (1007)

There were a few subgroup differences:

- 17-34 year olds were more likely to be aware of V2G technology (84%) compared to other age groups (58% of 35-54 year olds and 61% of 55-65 year olds).
- Those living in the South of England were more likely to be aware (69%) compared to those living in the Midlands (59%).

Among those who were aware of V2G technology, most (83%) were willing to use this and only 4% were unwilling (Appendix C, Table 9.13). Willingness varied by age:

- Those aged 17-34 were more likely to be willing (90%) compared to those aged 35-54 (82%) and 55-65 (72%). It should be noted that the base size of the 55-65 age group is small, and the finding should be treated with caution.

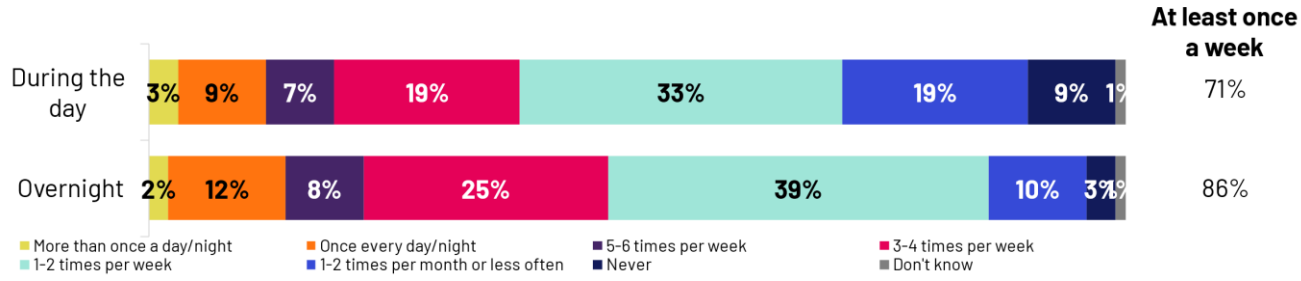
6.3 Home charging behaviours

BEV drivers who could charge at home did so more frequently overnight at least once a week (86%) compared to during the day at least once a week (71%).

The most common charging frequency overnight was 1-2 times per week (39%), with frequent charging (once a night or more) being less common (14%).

A similar pattern was identified for day charging, with the most common charging frequency during the day being 1-2 times per week (33%) (Figure 6.4).

Figure 6.4: Frequency of home charging among BEV drivers



BEV drivers

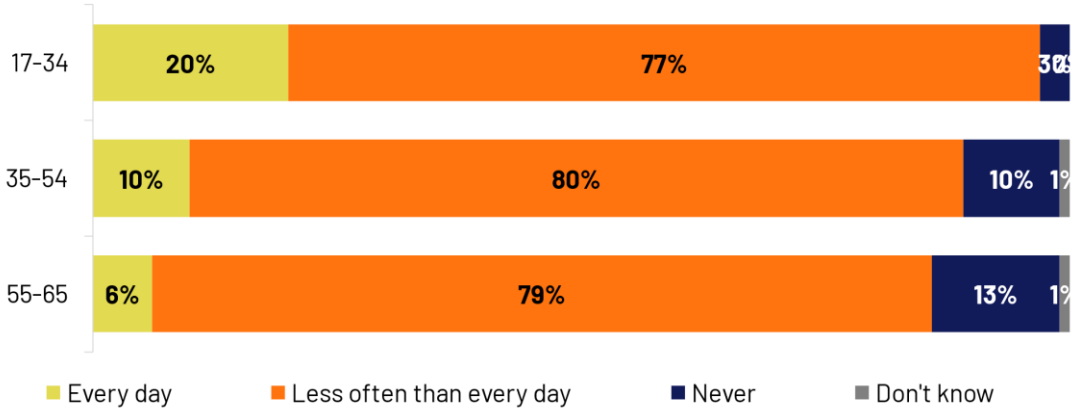
F1a. How often do you charge the battery electric vehicle (BEV) you drive most often at home overnight and during the day? Please include any charges you make, even if you do not fully charge the battery electric vehicle (BEV) each time.

Base: UK adults aged 17-65 who have driven a battery electric vehicle and have a method of charging at home (635)

There were a few subgroup differences:

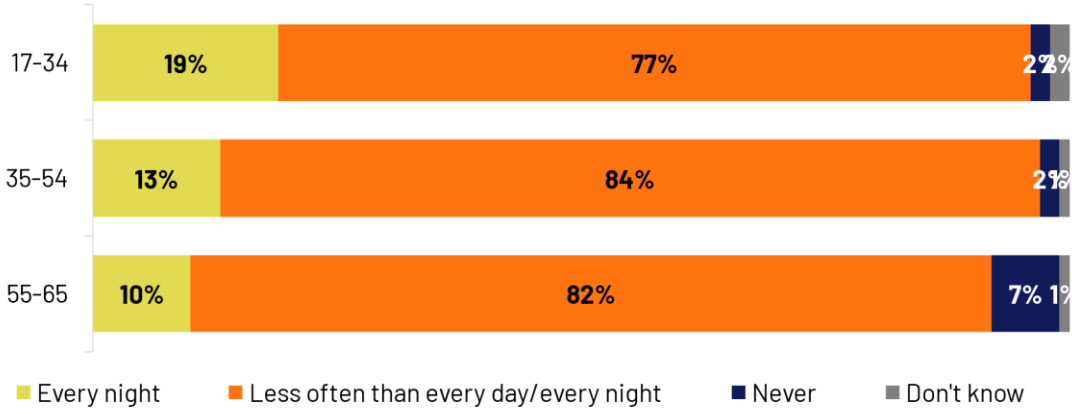
All age groups were more likely to charge their EVs less often than every day/night. However, those aged 17-34 were more likely to charge every night (19%) compared to those aged 55-65 (10%) (Figure 6.5). Similarly, those aged 17-34 were more likely to charge every day (20%) compared to older age groups (10% aged 35-54 and 6% aged 55-65) (Figure 6.6).

Figure 6.5: Frequency of home charging at day among BEV drivers by age



BEV drivers by age
F1a. How often do you charge the battery electric vehicle (BEV) you drive most often at home during the day? Please include any charges you make, even if you do not fully charge the battery electric vehicle (BEV) each time.
Base: UK adults aged 17-65 who have driven a battery electric vehicle and have a method of charging at home: 17 - 34 (127), 35-54 (356), 55-65 (152)

Figure 6.6: Frequency of home charging at night among BEV drivers by age



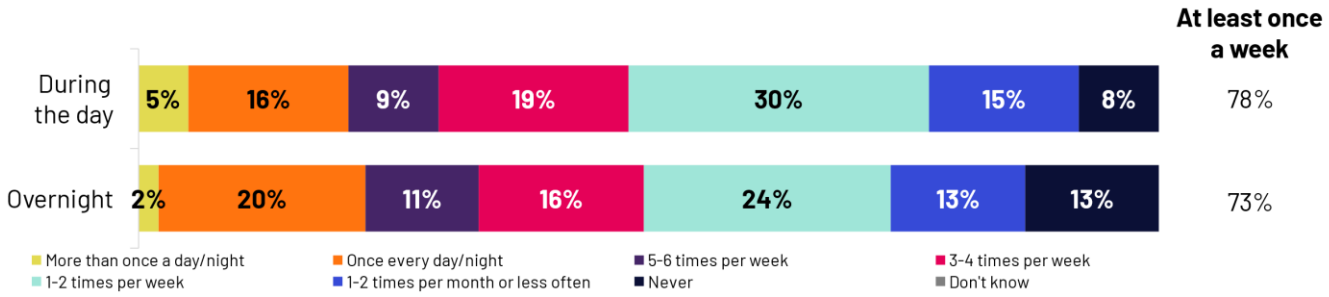
BEV drivers by age
F1a. How often do you charge the battery electric vehicle (BEV) you drive most often at home overnight? Please include any charges you make, even if you do not fully charge the battery electric vehicle (BEV) each time.
Base: UK adults aged 17-65 who have driven a battery electric vehicle and have a method of charging at home: 17-34 (127), 35-54 (356), 55-65 (152)

- Those who first drove a BEV before 2023 were more likely to charge more frequently compared to those who first drove a BEV more recently (2023 and onwards). For example, those who have driven a BEV for longer were more likely to charge 3-4 times a week during the day (23%) compared to newer BEV drivers (13%).
- Similarly, those who first drove a BEV before 2023 were more likely to charge 5-6 times per week *overnight* more frequently than those who first drove a BEV in 2023 and onwards (10% and 5% respectively).

PHEV drivers who charged at home were more likely to charge during the day at least once a week (78%) compared to BEV drivers (71%). In contrast, BEV drivers who charged at home were more

likely to charge overnight at least once a week compared to PHEV drivers (86% and 73% respectively). Similar to BEV drivers, the most common charging frequency among PHEV drivers with a method of charging at home was 1-2 times per week, both overnight (24%) and during the day (30%) (Figure 6.7).

Figure 6.7: Frequency of home charging among PHEV drivers



PHEV drivers

F1b. How often do you charge the plug-in hybrid electric vehicle (PHEV) you drive most often at home overnight and during the day? Please include any charges you make, even if you do not fully charge the plug -in hybrid electric vehicle (PHEV) each time.

Base: England adults aged 17-65 who have driven a plug-in hybrid electric vehicle and have a method of charging at home (273)

The frequency of charging a PHEV at home varied across subgroups:

- Those who lived in rural areas were more likely to charge overnight at least daily (39%) compared to those who lived in urban areas (18%).

Half (49%) of EV drivers had a specific EV tariff, followed by 38% who had a non-specific energy tariff and 8% who did not have any energy tariffs at home (see Appendix C, Figure 9.1).

There were a few differences in subgroups:

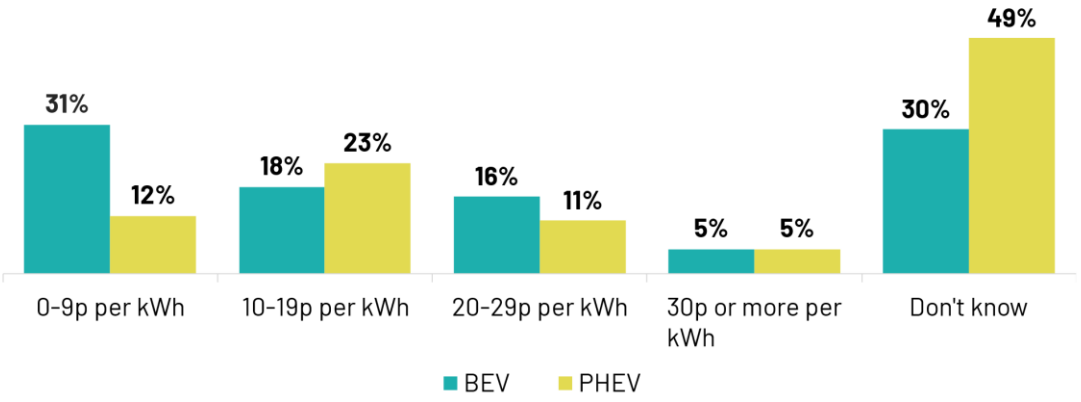
- Those aged 17-34 were more likely to have a specific EV tariff (58%) compared to other age groups (47% aged 35-54, 45% aged 55-65).
- Conversely, those aged 55-65 were more likely to not have any energy tariffs (15%) compared to other age groups (6% aged 17-34, 6% aged 35-54).
- Those with BEV(s) in the household (regardless of how many) were more likely to have a *specific EV tariff* compared to those with PHEV(s) in the household.
- Whereas those with PHEV(s) in the household (regardless of how many) were more likely to have a *non-specific tariff* compared to those with BEV(s) in the household.

The most common EV specific tariffs were the EV tariff (56%) and smart EV tariff (49%). The vehicle-to-grid tariff was less common, with only 16% of EV drivers having this at home (see Appendix C, Figure 9.2).

Around 3 in 10 (31%) BEV drivers reported that it costs them 0-9p per kWh to charge their vehicle at home which was the most selected cost per kWh. A further 3 in 10 did not know how much it costs to charge their BEV at home.

The most common home charging cost for PHEV drivers was higher at 10-19p per kWh (23%). A significant proportion of PHEV drivers were unaware of their charging costs, with 49% of PHEV drivers selecting *don't know* compared to 30% of BEV drivers with a home charging method (Figure 6.8).

Figure 6.8: Typical home charging cost per kWh among those with a home charging method



BEV and PHEV drivers
E12a/b. Thinking about when you typically charge the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] you drive most often at home, how much does it cost per kilowatt hour (kWh)?
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle and have a method of charging at home: BEV (635), PHEV (273)

Among BEV drivers, there were a few differences among subgroups:

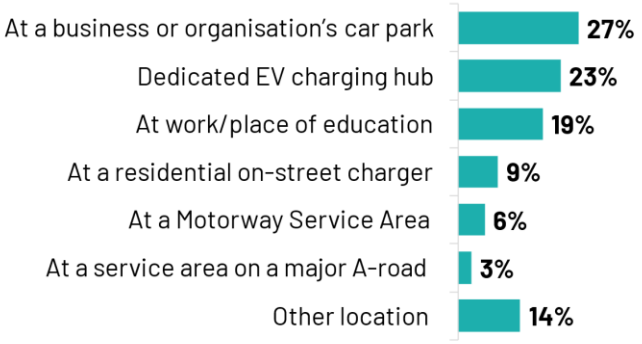
- Those aged 17-34 reported higher home charging costs than those aged 55-65. For example, 17-34 year olds were more likely to spend 10-19p per kWh (29%) compared to 55-65 year olds (13%). Conversely, 55-65 year olds were more likely to spend 0-9p per kWh (43%) compared to 17-34 year olds (17%).

- Those who reported a non-specific EV tariff or no energy tariff were more likely to report 'don't know' (36% and 41% respectively) compared to those who had a specific EV tariff (18%). However, the base size for those with no tariff is small and should be interpreted with caution.

6.4 Public charging behaviours among those without a home charger

Among BEV drivers who relied on public chargepoints (n=63), only 9% primarily relied on residential on-street chargers (including lamppost chargers). The most commonly used locations included chargepoints at a business or organisation's car park (27%), dedicated EV charging hub (23%), and at work or place of education (19%) (Figure 6.9). The base size for this group is small and should be treated with caution.

Figure 6.9: Primary public chargepoint location among BEV drivers without home charging

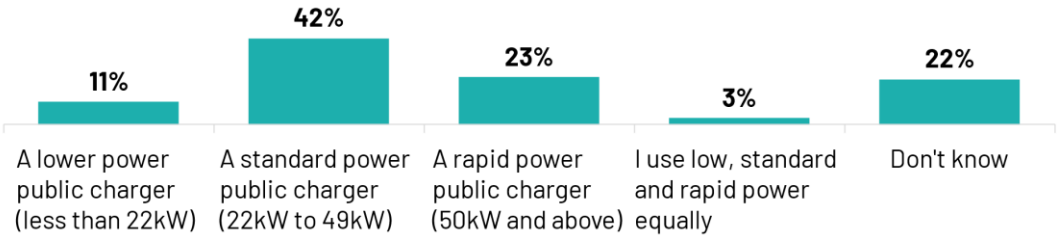


BEV drivers
E8a. You mentioned that you have no available method of charging the battery electric vehicle (BEV) you drive most often at home, what type of chargepoint do you mostly rely on to charge the battery electric vehicle (BEV)?
Base: UK adults aged 17-65 who have driven a battery electric vehicle and rely on chargers outside their home (63)

Among BEV drivers who relied on public chargepoints, the most common type used was standard power (22kW to 49kW) (42%), followed by rapid power (50kW and above) (23%). Around 2 in 10 (22%) reported that they did not know the speed of the primary public chargepoint used (Figure 6.10).

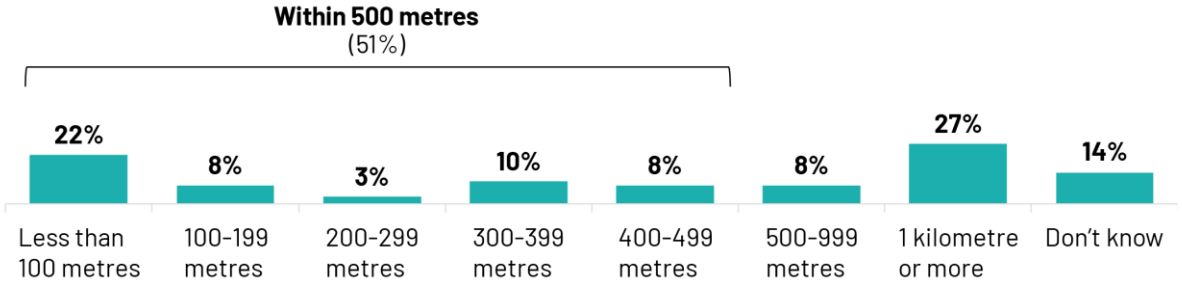
Half (51%) primarily used a chargepoint less than 500 metres from their usual overnight parking location. Around 3 in 10 (35%) used a chargepoint that was more than 500 metres away, with more than a quarter (27%) using one a kilometre or more away (Figure 6.11). It is important to note that the base size of this group is small and the results should be treated with caution.

Figure 6.10: Primary public chargepoint speed among BEV drivers without home charging



BEV drivers
E9a. You mentioned that you have no available method of charging the battery electric vehicle (BEV) you drive most often at home, are the chargepoints you mostly rely on to charge the battery electric vehicle (BEV) more often...?
Base: UK adults aged 17-65 who have driven a battery electric vehicle and rely on chargers outside their home (63)

Figure 6.11: Distance to usual public chargepoint from overnight parking location among those without home charging



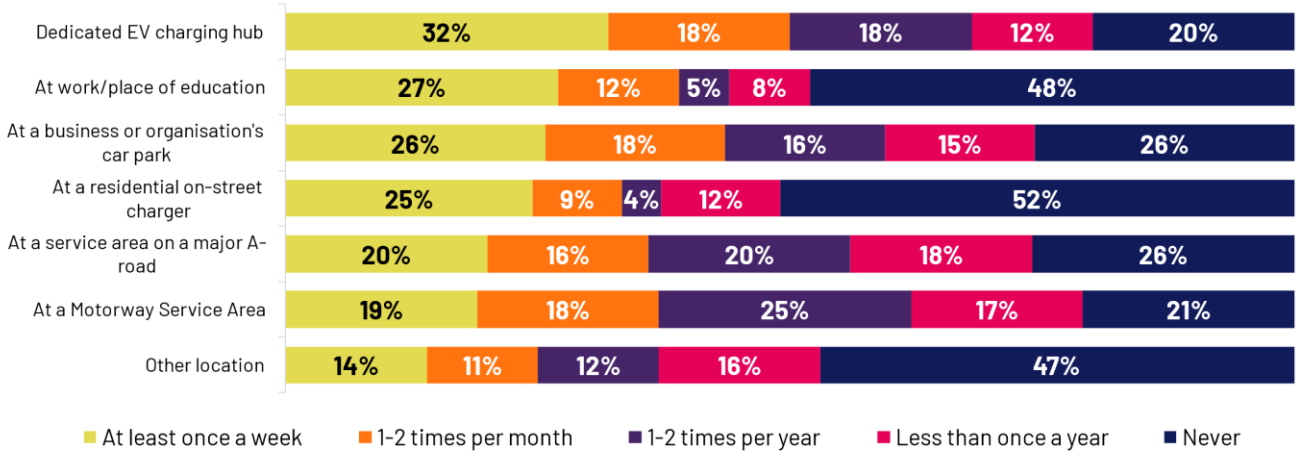
BEV drivers
E10a. How far away is the public chargepoint you use to charge the battery electric vehicle (BEV) you drive most often from your usual overnight parking location?
Base: UK adults aged 17-65 who have driven a battery electric vehicle and rely on chargers outside their home (63)

6.5 Public chargepoint behaviours

The most frequently used public charging location among all BEV drivers were dedicated EV charging hubs, with 32% charging there at least once a week (1-2 times per week or more). Around one quarter of BEV drivers also made frequent use of chargers at workplaces/places of education (27%), business or organisation car parks (26%), and residential on-street chargers (25%) at least once a week. Service areas on major A-roads and motorways were used less frequently, with the most common frequency being 1-2 times per year (20% and 25% respectively).

Around half of BEV drivers reported never using residential on-street chargers (52%) or chargepoints at workplaces/places of education (48%) (Figure 6.12).

Figure 6.12: Frequency of public chargepoint use by location among BEV drivers

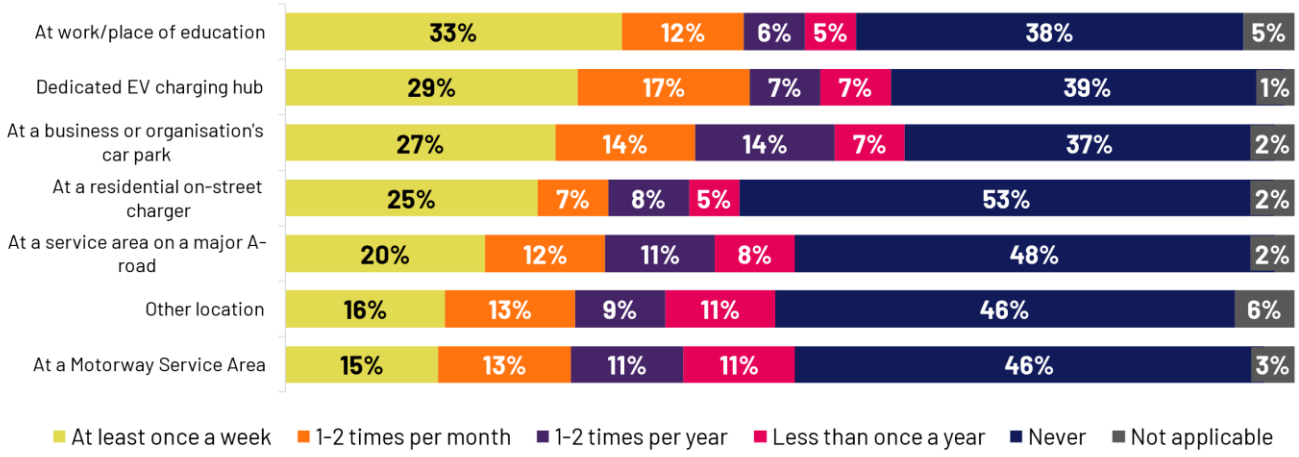


BEV drivers
F2a. How often do you charge the battery electric vehicle (BEV) you drive most often at the following types of chargepoint?
Base: UK adults aged 17-65 who have driven a battery electric vehicle for personal use in the last 6 months (698)

For PHEV drivers frequent charging (1-2 times per week or more) was most common at workplaces (33%), businesses or organisation car parks (27%), and dedicated EV charging hubs (29%). Around

half of PHEV drivers reported never using residential on-street chargers (53%) or chargepoints at major A-road (48%), or motorway service areas (46%) (Figure 6.13).

Figure 6.13: Frequency of public chargepoint use by location among PHEV drivers



PHEV drivers

F2b. How often do you charge the plug-in hybrid electric (PHEV) you drive most often at the following types of chargepoint?

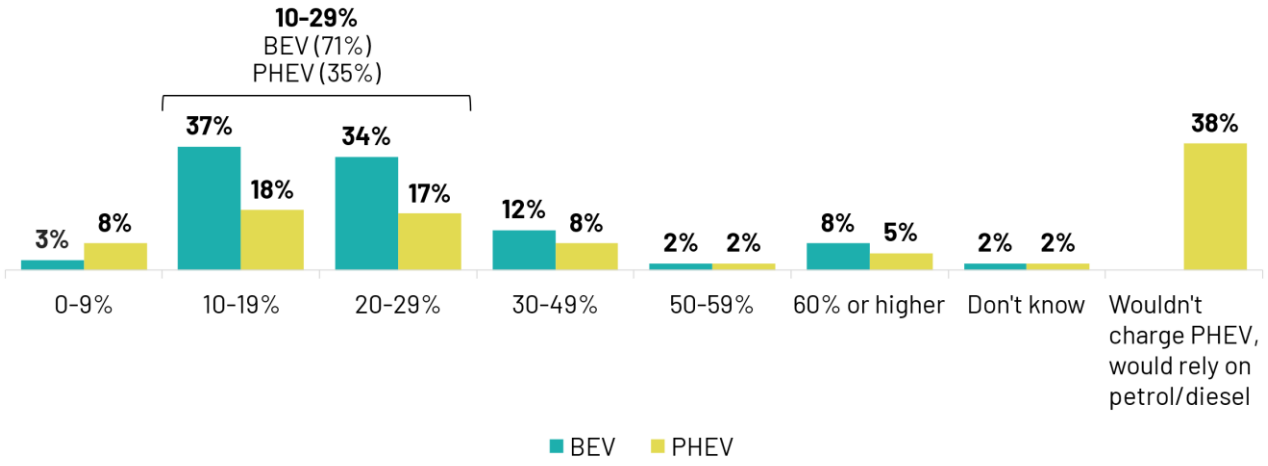
Base: UK adults aged 17-65 who have driven a plug-in hybrid electric for personal use in the last 6 months (309)

Other locations used for public charging included at a train station, shopping centre/supermarket, cinema/museum/theatre, restaurant/pub/café, and hotel.

6.6 Charging behaviour on a journey

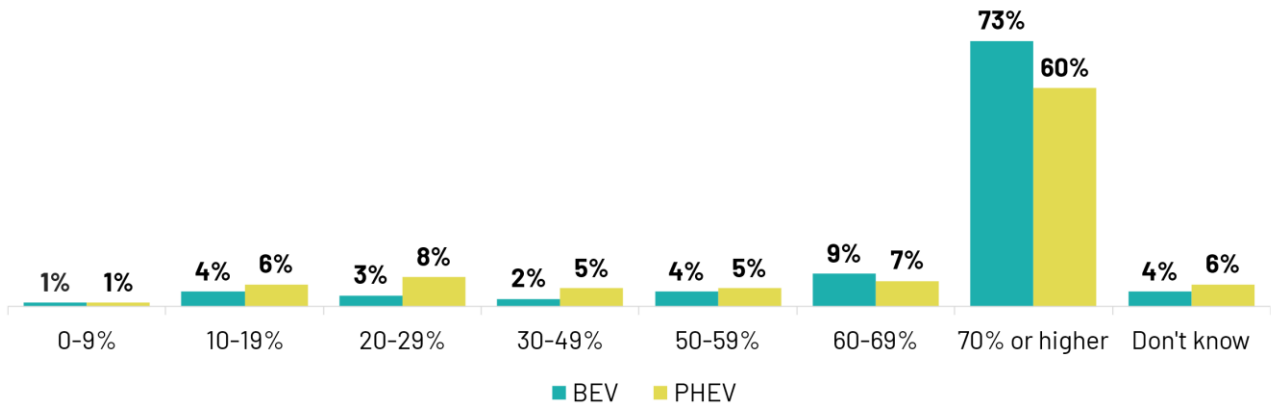
Around 7 in 10 BEV drivers would stop to charge their vehicle when the battery was between 10 and 29% (71%). Almost two fifths (38%) of PHEV drivers would not stop to charge and would rely on petrol or diesel to complete the journey (Figure 6.14). Most BEV and PHEV drivers prefer to charge their battery to 70% or more when stopping to charge on a journey (Figure 6.15).

Figure 6.14: Typical battery percentage when deciding to stop and charge on a journey



BEV and PHEV drivers
F4a/c. Imagine you were driving a [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] for a journey in the UK... at what battery percentage (%) would you typically stop to charge the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)]?
Base: UK adults aged 17-65 who have driven a battery electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

Figure 6.15: Typical battery percentage when finished charging



BEV and PHEV drivers
F4b/d. At what battery percentage (%) would you finish charging the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] on route?
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months and charge on a journey: BEV (698), PHEV (196)

EV drivers were asked about the frequency of use of third-party apps on a mobile phone or integrated systems in the vehicle to help plan when and where to stop and charge. BEV drivers were more likely to *always* or *sometimes* use apps or integrated systems to plan charging planning compared to PHEV drivers (65% and 44% respectively). PHEV drivers were more likely to never use apps or integrated systems, with 37% of PHEV drivers reporting that they *never* use these tools compared to 14% of BEV drivers (Appendix C, Table 9.14).

7 Barriers and enablers to driving EVs

This section explores the barriers and enablers to EV usage among current EV drivers. It examines EV driver satisfaction with public chargepoint availability across different locations, their perceptions of the public charging network, their experiences with public charging, including safety and complaints, their preferred chargepoint types, and their future vehicle ownership intentions. This analysis provides insights into the factors that encourage or discourage the adoption and continued use of EVs from EV drivers' perspectives.

7.1 Summary

- Around half of EV drivers were satisfied with the availability of public chargepoints in their local area (52%). However, a notable proportion of EV drivers were dissatisfied with chargepoint availability in their local area (24%).
- EV drivers in England were more likely to be satisfied with the availability of chargepoints at motorway service areas (56%) compared to major A-roads (50%).
- BEV drivers tended to feel confident making long journeys in their vehicle (64%) and found public chargepoints easy to locate (61%).
- In contrast, PHEV drivers tended to feel less confident in making long distance journeys (45%) and around half (53%) found public chargepoints easy to locate.
- Around half of EV drivers agreed that public chargepoints are difficult to use or out of service (49%) and the price is unclear and confusing (55%).
- EV drivers wanted chargepoints to be more affordable (47%), quicker (45%), and more reliable (29%). The vast majority (84%) of EV drivers said they felt safe when using public chargepoints.
- EV drivers stated they would like to see more ultra-rapid (150+kW) and rapid (50-149kW) chargers across most locations, such as service areas and EV charging hubs.
- More than three-quarters of EV drivers would most likely buy or lease another EV in the future (78%) and would recommend their vehicle type to others (88% BEV, 83% PHEV).

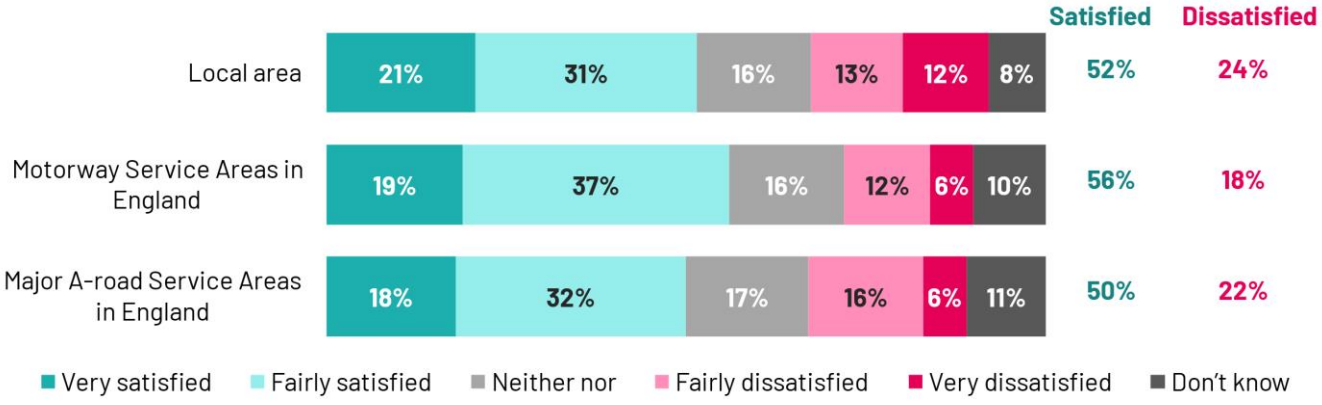
7.2 Satisfaction with availability of public chargepoints

Around half of EV drivers in the UK were satisfied with the availability of public chargepoints in their local area (52%).

When EV drivers in England were asked about chargepoint availability on England's major A-roads and motorways, 56% were satisfied with availability at motorway service areas, and 50% were satisfied with availability at major A-road service areas in England (Figure 7.1).

However, a notable proportion of EV drivers reported dissatisfaction with chargepoint availability. Dissatisfaction levels were 24% for local areas (UK-wide EV drivers), 18% for motorway service areas (England only EV drivers), and 22% for major A-road service areas (England only EV drivers).

Figure 7.1: Satisfaction with public chargepoint availability across locations



EV drivers

G1/G2/G3. Overall, how satisfied or dissatisfied are you with the availability of public chargepoints in [your local area/at motorway service areas in England/major A-road service areas in England?
Base: UK adults aged 17-65: UK EV drivers (1007), England EV drivers (884)

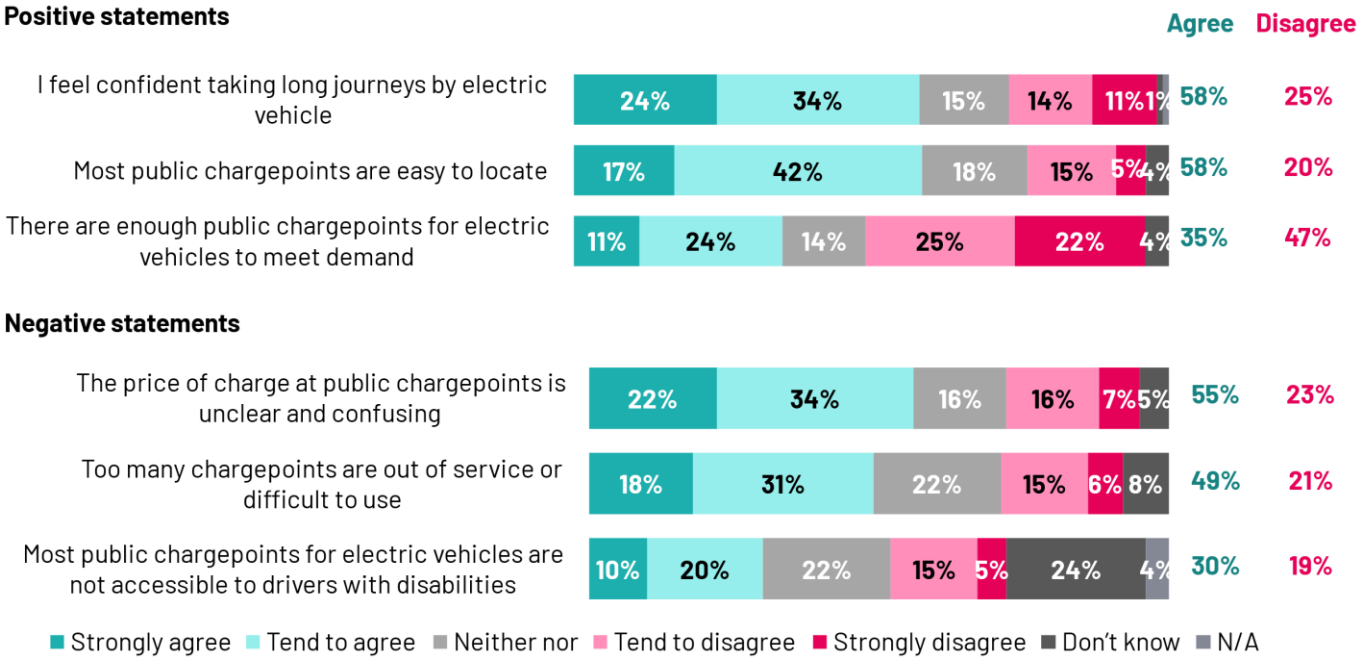
Some differences among subgroups relating to who was more likely to be satisfied with the availability of public chargepoints included:

- Those aged 17-34 were more likely to be satisfied with the availability of chargepoints across all locations (79% local area, 80% motorways, 76% major A-roads) compared to other age groups. For example, those aged 55-65 were least likely to be satisfied across locations (31% local area, 31% motorways, 22% major A-roads).
- Those in Greater London were more likely to be satisfied with local area chargepoint availability (71%) than the total UK average (52%) and South East England (44%).
- Urban residents were also more likely to be satisfied (56% local area, 59% motorways, 53% major A-roads) compared to rural residents (35% local area, 39% motorways, 33% major A-roads).
- BEV drivers were more satisfied with public chargepoints in their local area and motorway service areas in England (53% local area, 59% motorways) compared to PHEV drivers (48% local area, 50% motorways).

When asked about levels of agreement with a range of statements, over half agreed that they 'feel confident taking long journeys by EV' (58%) and 'most public chargepoints are easy to locate' (58%) (Figure 7.2).

However, there were concerns about the price, accessibility and reliability of public chargepoints. For example, 55% of EV drivers agreed that 'the price of charge at public chargepoints is unclear and confusing' and 49% who agreed that 'too many chargepoints are out of service or difficult to use'. Almost half of EV drivers (47%) disagreed that there are enough public chargepoints for EVs to meet demand.

Figure 7.2: Agreement with statements about EVs and chargepoints



EV drivers
G4. How much do you agree or disagree with the following statements?
Base: UK adults aged 17-65: EV (1007)

Some differences among subgroups relating to who was more likely to *agree* with *positive* statements about the public charging network included:

- Those aged 17-34 were more likely to agree that 'they feel confident making long journeys by EV' (74%), 'that most public chargepoints are easy to locate' (76%) and that 'there are enough public chargepoints to meet demand' (62%) compared to other age groups. For example, those aged 55-65 were least likely to agree with these statements (47%, 45% and 17% respectively).
- Men were more likely to agree that 'they feel confident making long journeys by EV' (62%) compared to women (52%).
- Those who live in England were more likely to agree that 'they feel confident making long journeys by EV' (60%) and that 'there are enough public chargepoints to meet demand' (37%) compared to the rest of the UK (49% and 23% respectively).

Some differences among subgroups relating to who was more likely to *agree* with *negative* statements about the public charging network included:

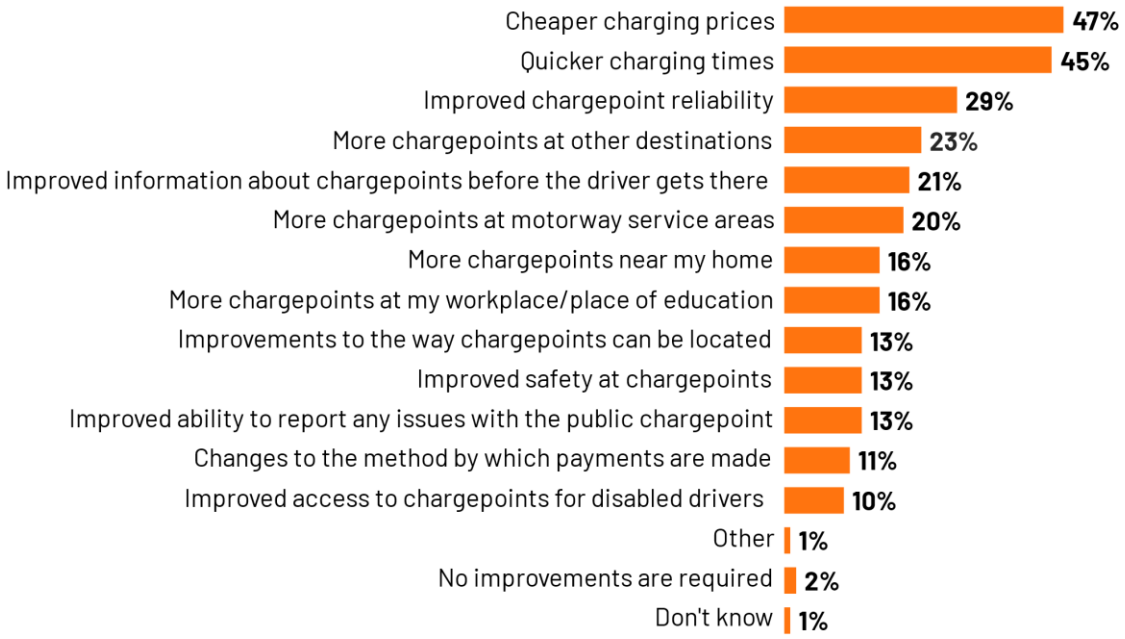
- Those aged 55-65 were more likely to agree that 'too many chargepoints are out of service/difficult to use' (58%) and that 'the price of charge at public chargepoints is unclear and confusing' (66%) compared to those aged 17-34 (41% and 44% respectively) and those aged 35-54 (52% and 56% respectively).

- Those who first drove a BEV before 2023 were more likely to agree that 'too many chargepoints are out of service/difficult to use' (55%) compared to those who first drove a BEV in 2023 and onwards (44%).

7.3 Public charging network improvements

When asked to select up to three improvements they would most like to see, EV drivers prioritised 'cheaper charging prices' (47%), 'quicker charging times' (45%), and 'improved chargepoint reliability' (29%) (Figure 7.3). These findings highlight the importance of affordability, convenience, and dependability in shaping EV driver perceptions of the public charging network.

Figure 7.3: Public charging network improvements



EV drivers

G7. Please select up to three options that you feel would most improve the public charging network
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle who use public chargepoints at least 1-2 times a year: EV (761)

Some interesting differences among subgroups included:

- Those aged 35-54 and 55-65 were more likely to want 'cheaper charging prices' (52% and 63% respectively) compared to those aged 17-34 (28%).

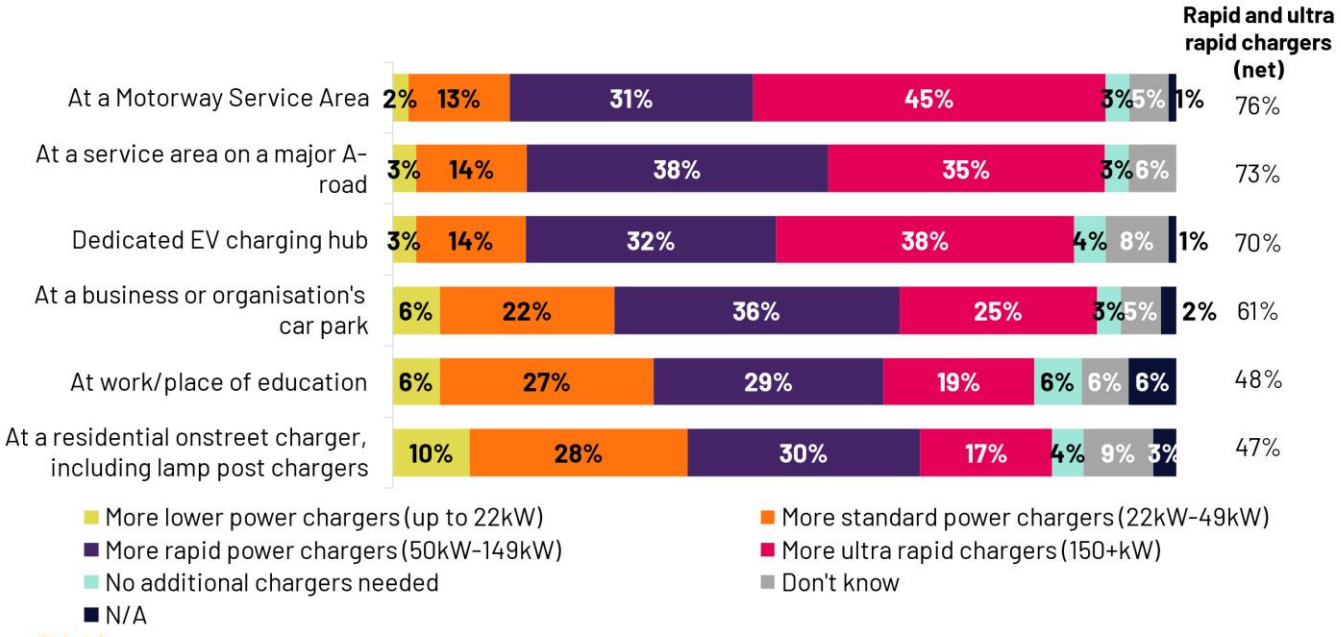
- Those aged 17-34 were more likely to want 'improved safety at chargepoints' (22%) compared to other age groups (11% aged 35-54, 6% aged 55-65). This could indicate that younger EV drivers have different perceptions of safety or are more concerned about potential risks associated with public charging.

- Those with no available method at home to charge a BEV were more likely to want 'more chargepoints near their home' (32%, n=18) compared to those with a charger at home (11%, n=55). Please note that the sample size for this group is too small to be statistically robust.

When asked about the kinds of chargepoints they might like to see, EV drivers expressed a strong preference for more ultra-rapid (150+kW) and rapid (50-149kW) chargers across most locations. This preference was particularly pronounced for motorway service areas (76%), service areas on major A-roads (73%), and dedicated EV charging hubs (70%). This suggests that EV drivers prioritise fast charging options on roads used particularly for long journeys and at locations specifically designed for EV charging (Figure 7.4).

However, preferences for lower power and standard power chargers varied depending on the location. While these charger types were less desired at motorway service areas and major A-roads, EV drivers were more likely to express a preference for them at residential on-street locations (including lamp post chargers) (38%), workplaces/places of education (33%) and business/organisation car parks (28%). This suggests that while fast charging is important for on route charging locations, there is desire to see an increase in slower charging options for destinations where drivers typically spend more time.

Figure 7.4: Types of additional chargepoints desired by location



EV drivers

G8. What kind(s) of additional chargepoints, if any, would you most like to see at...

Base: UK adults aged 17-65 who have driven a battery and or plug -in hybrid electric vehicle who use public chargepoints at least 1-2 times a year: EV (761)

Whilst subgroups for different types of home charger access were too small for robust statistical analysis, those with no available method of charging a BEV at home were more likely than those with a method of charging at home to want to see:

- More residential on-street chargers which are standard power (22kW-40kW) (34%, n=19 vs. 27% n=134).

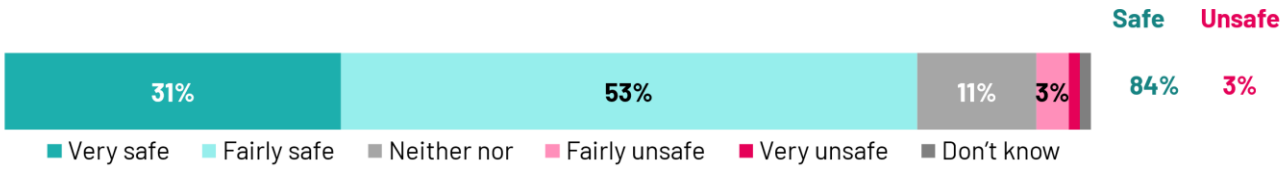
In contrast, those who have a method of charging at home were more likely than those with a home charging method to want to see:

- More rapid powered chargers (50kW-149kW) at major A-road service areas (42%, n=209 vs. 32%, n=18).
- More ultra rapid powered chargers (150kW+) at dedicated EV charging hubs (43%, n=216 vs. 29%, n=16) and at motorway service areas (49%, n=246 vs. 42%, n=24%).

7.4 Perceived safety of using public chargepoints

The vast majority (84%) of EV drivers felt safe using public chargepoints, with only 3% reporting feeling unsafe. This suggests that concerns about safety is not a major barrier to public charging for most EV drivers (Figure 7.5).

Figure 7.5: Perceived safety of using public chargepoints



EV drivers

G5. How safe or unsafe do you feel when using public chargepoints?
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle who use public chargepoints at least 1-2 times a year: EV (761)

- Those aged 17-34 and 35-54 were more likely to feel safe (86%) compared to those aged 55-65 (75%).
- Men were more likely to feel safe (87%) compared to women (80%). Conversely, women were more likely to feel unsafe (5%) compared to men (2%).

Among the small proportion of EV drivers who reported feeling unsafe (n=27), the most common reasons were concerns about leaving the car unattended (n=17) and public chargers being located in poorly lit locations (n=17) (Appendix C, Figure 9.3). This highlights the importance of well-lit and secure charging locations to address safety concerns and enhance the overall charging experience.

7.5 Driver expectations versus experiences with BEV/PHEV

When BEV and PHEV drivers were asked if they charge the vehicle more or less frequently than they had expected before acquiring it, half (52% BEV and 51% PHEV) said they charge as much as they had expected. Around 3 in 10 (29% BEV, 27% PHEV) reported that they charge more frequently than expected and less than one in five BEV drivers (16%) and PHEV drivers (19%) said they charge their vehicle less frequently than expected before purchase (Appendix C, Figure 9.4).

Two in five BEV drivers (40%) said that in the past three months, they have experienced a range of 201+ miles when driving their BEV, followed by 34% who experienced a range of 101-200 miles

(Appendix C, Figure 9.5). Most PHEV drivers had experienced an electric battery range of between 21-40 miles (46%) and 41+ miles (26%) in the past three months (Appendix C, Figure 9.6).

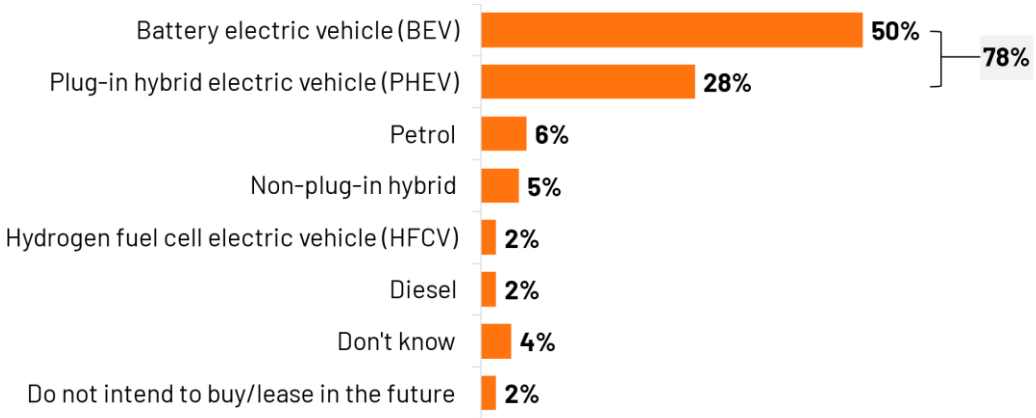
When BEV and PHEV drivers were asked whether their experienced battery range has changed since they first acquired the vehicle, around half of BEV drivers (56%) and PHEV drivers (49%) reported that the battery range had stayed about the same since they first got it. Although over one third of drivers (37% BEV, 39% PHEV) thought that their battery range had decreased, only one in 10 (10% BEV and 12% PHEV) said it had decreased significantly (Appendix C, Figure 9.7).

7.6 Future ownership intentions

When EV drivers were asked about their future car/van purchase intentions, more than three quarters said they would most likely buy or lease another EV in the future (78%). Half of EV drivers intended to buy or lease a BEV (50%) while 28% intended to buy or lease a PHEV (Figure 7.6).

When asked what type of car or van they intended to buy or lease, the majority (76%) said that they would buy or lease a *new* car or van whereas 20% said it would most likely be a *used* car or van (Appendix C, Figure 9.8).

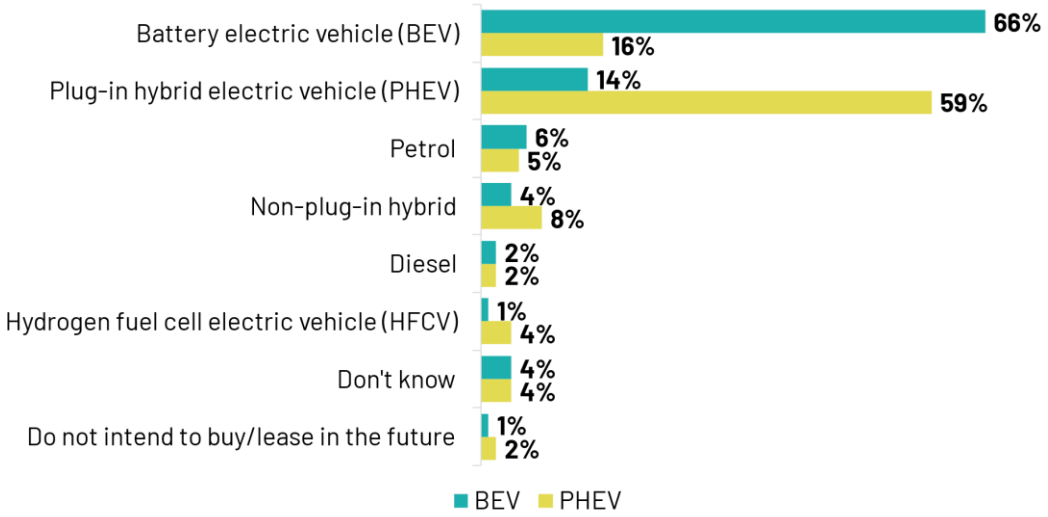
Figure 7.6: Intended engine/motor type for future personal car/van purchase



EV drivers
B13. If you intend to buy or lease a car or van in the future for personal use, what type of engine/motor would it most likely have?
Base: UK adults aged 17-65 who have driven a battery electric/plug-in hybrid vehicle for personal use in the last 6 months: EV (1007)

Looking at future car/van purchase intentions by BEV and PHEV drivers, most (66%) BEV drivers said they would most likely buy or lease another BEV, while 16% intended to switch to a PHEV. A similar pattern emerged among PHEV drivers, with over half (59%) reporting that they planned to buy or lease another PHEV in the future while 14% intended to transition to a BEV. Regarding other vehicle types, 6% of BEV drivers and 5% of PHEV drivers intended to purchase a petrol vehicle in the future. This is followed by non-plug-in hybrids (4% BEV, 8% PHEV) and diesel (2% BEV, 2% PHEV) (Figure 7.7).

Figure 7.7: Intended engine/motor type for future personal car/van purchase by BEV/PHEV drivers



BEV drivers and PHEV drivers
B13. If you intend to buy or lease a car or van in the future for personal use, what type of engine/motor would it most likely have?
Base: UK adults aged 17-65 who have driven a battery electric/plug-in hybrid vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

Some key differences among subgroups for the engine/motor type they would buy/lease in the future among all EV drivers included:

- Those aged 55-65 were more likely to intend to buy or lease a BEV in the future (60%) compared to other age groups (42% aged 17-34 and 50% aged 35-54).
- However, those aged 17-34 and 35-54 were more likely to intend to buy or lease a PHEV in the future (35% and 29% respectively) compared to 55-65 year olds (19%).

Some key differences among subgroups for whether they would buy/lease a *new* or *used* car or van next included:

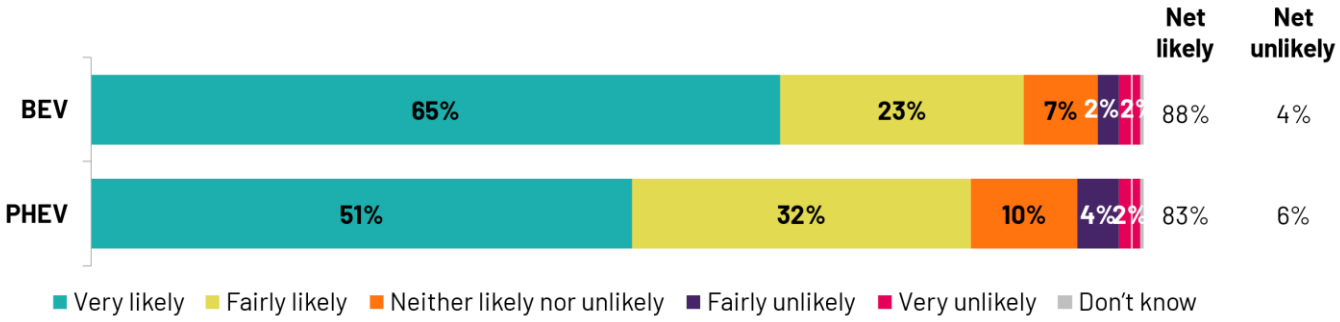
- Those aged 17-34 and 35-54 were more likely to buy/lease a *new* car or van (91% and 74%, respectively) compared to 55-65 year olds (63%).
- Those whose primary vehicle was a BEV were more likely to buy/lease a *new* car or van (80%) compared to those whose BEV was not their primary vehicle (71%).

7.7 Likelihood of recommending a BEV/PHEV

The vast majority of EV drivers would recommend their vehicle type to others. Specifically, 88% of BEV drivers and 83% of PHEV drivers said they were likely (to recommend a BEV or PHEV, respectively). This high level of recommendation suggests positive experiences with EV ownership.

Only a small proportion of EV drivers were unlikely to recommend their vehicle type. Specifically, 4% of BEV drivers and 6% of PHEV drivers said they were unlikely to recommend a BEV or PHEV respectively (Figure 7.8).

Figure 7.8: Likelihood of recommending BEV/PHEV to friend or colleague



BEV and PHEV drivers
B15a/b. How likely or unlikely would you be to recommend a [battery electric vehicle (BEV)/plug-in hybrid electric vehicles (PHEV)] to a friend or colleague?
Base: UK adults aged 17-65 who have driven a battery electric/plug-in hybrid vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

- Those aged 17-34 were more likely to recommend a PHEV (93%) compared to other age groups (81% aged 35-54, 79% aged 55-65).
- Those who first drove an EV before 2023 were more likely to recommend an EV (91% BEV, 87% PHEV) compared to those who first drove in 2023 and onwards (84% BEV, 78% PHEV).

8 Travel and charging diary

This section presents key findings from the diary phase of the research. As outlined in Section 3.3 participants in the tracker survey were invited to take part in a two-week travel and charging diary. Participants were asked to record all the journeys and charges that they made in their EV between 21st November and 4th December. The aims of the travel and charging diary were to provide rich and detailed information about how EV drivers used and charged their vehicles to supplement the information collected in the tracker survey.

Participants were asked some initial questions about themselves and their vehicle including make and model, battery size and access to home charging. They were then asked to complete the diary each day recording all journeys and charges they made or indicating they did not use or charge the vehicle that day.

For any journeys the participant made they were asked about the purpose of the journey and the distance driven. PHEV drivers were also asked what percentage of the journey was driven in electric mode. For charge events participants were asked about the location of the charger (e.g., at home, public), the plug-in and plug-out times, the battery percentage before and after the charge as well as additional information depending on the type of charger used (for full details of the information collected see Appendix B).

In total 41 BEV drivers and 36 PHEV drivers completed the diary over the two-week period. Due to the small sample size for this phase of the research the results presented below are indicative and statistical testing has not been conducted.

8.1 Summary

- EV drivers made an average of 15 journeys over a two-week period, with BEV drivers making more journeys than PHEV drivers (17 and 12 respectively) which equates to approximately 1 journey per day.
- The most common purpose for driving an EV was traveling for work/education (40% BEV, 39% PHEV), followed by errands/appointments (26% BEV, 25% PHEV), and shopping (21% BEV, 23% PHEV).
- Journeys made using BEVs had a median distance of 11 miles, while PHEV journeys had a median distance of 10 miles. The mean distances were slightly higher, at 21 miles for BEVs and 18 miles for PHEVs, due to a small number of longer journeys.
- EV drivers charged an average of 4 times over the two-week period, with BEV drivers charging more frequently at public chargers compared to PHEV drivers (1.8 times compared to 1.2 times).
- Almost 4 in 10 (37%) did not know the cost of public charge.
- At home was the most common charging location, accounting for 60% of BEV charges and 71% of PHEV charges.
- The most common plug-in times for charging were 8am-11:59am (27%) and 4pm-7:59pm (22%), while the most common plug-out times were 8am-11:59am (23%), 4am to 7:59am (22%), and midday to 3:59pm (21%).
- When plugging in to charge, the mean battery level was 44%, with 21-50% being the most common range. Upon unplugging, 88% of charges resulted in a battery level of 71% or higher.
- Almost half (47%) of journeys driven using a PHEV were made using electric mode for the whole journey.

8.2 Demographic profile

Among BEV drivers invited to take part in the travel and charging diary, 59% were male and 41% were female. Among PHEV drivers, 50% were male and 50% were female. Regarding home charger access, 66% of BEV owners had a dedicated charger installed at home, while 50% of PHEV owners had one. An additional 12% of BEV drivers and 25% of PHEV drivers had an alternative method of charging at home. Around 1 in 4 (22% BEV, 25% PHEV) had no available method of charging at home.

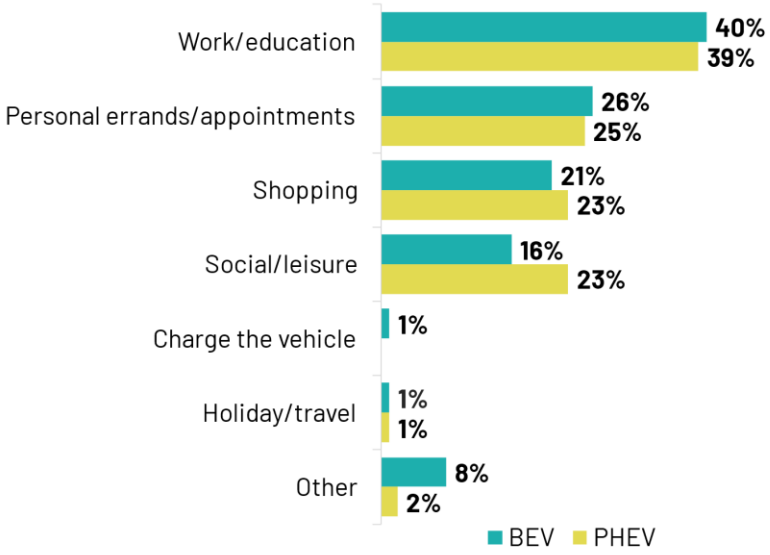
More information regarding the demographic breakdown of the sample can be found in Appendix B.

8.3 Journey purposes

EV drivers made on average 15 journeys (from the start location back to that location) in the vehicle over a two-week period (approximately 1 journey per day). BEV drivers made more journeys on average than PHEV drivers (17 and 12 respectively).

Travelling for work/education was the most common purpose for making a journey in their BEV or PHEV with around 4 in 10 journeys made for this reason (40% for BEV drivers and 39% for PHEV drivers). Making personal errands/appointments, shopping and for social/leisure reasons were also common purposes for making EV journeys (Figure 8.1).

Figure 8.1: Reasons for driving BEV or PHEV during travel and charging diary



BEV and PHEV drivers
J1a/b. What was the purpose(s) of this journey?
Base: UK adults aged 17-65 who have driven battery/plug-in hybrid electric vehicle for personal use in the last 6 months who took part in the diary: BEV (41), PHEV (36)

8.4 Journey distance

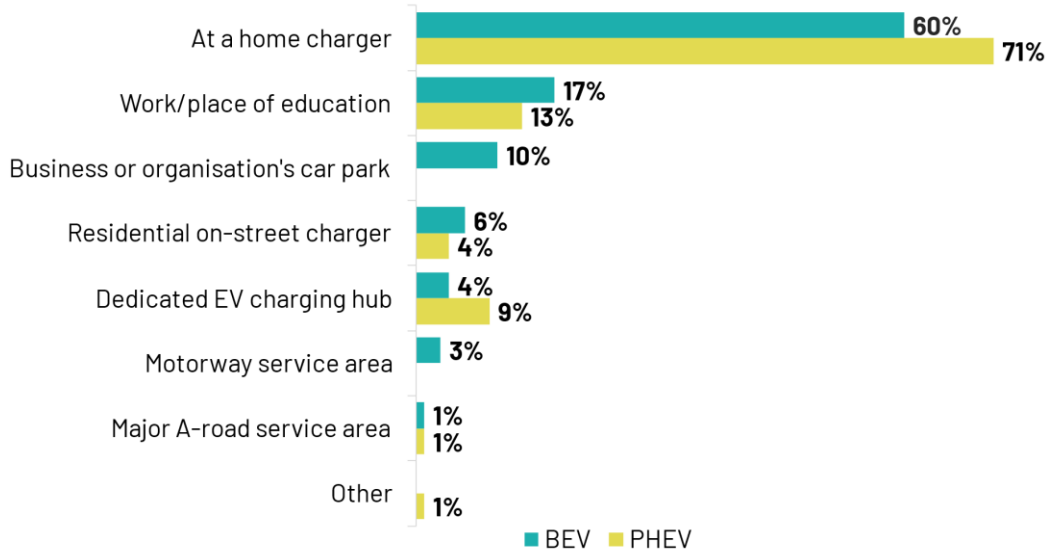
Journeys made using BEVs had a mean distance of 21 miles and a median of 11 miles. The difference in the mean and median suggest that a small number of journeys of over 100 miles (8 journeys) were impacting the mean and therefore the median is a more reliable measure in this instance. Journeys made using PHEVs had a slightly lower mean distance of 18 and a median of 10 miles.

8.5 Charging frequency and location

EV drivers charged on average 4 times in total over a two-week period (4.3 for BEV drivers and 4.2 for PHEV drivers). BEV drivers charged on average 2.6 times at home and 1.8 times at public chargers. Whereas PHEV drivers charged on average 3.1 times at home and 1.2 times at public chargers.

Home was the most common charging location (60% of BEV charges were at home and 71% of PHEV charges were at home) followed by charges at work/education (17% of BEV charges were at work/education and 13% of PHEV charges were at work/education). Other locations were less frequently used for charges with all being used less than once in every five charges (Figure 8.2).

Figure 8.2: Use of charging locations during travel and charging diary



BEV and PHEV drivers
C1a/b. Where is the location of this charge?
Base: UK adults aged 17-65 who have driven battery/plug-in hybrid electric vehicle for personal use in the last 6 months who took part in the diary: BEV (41), PHEV (36)

8.6 Charging times

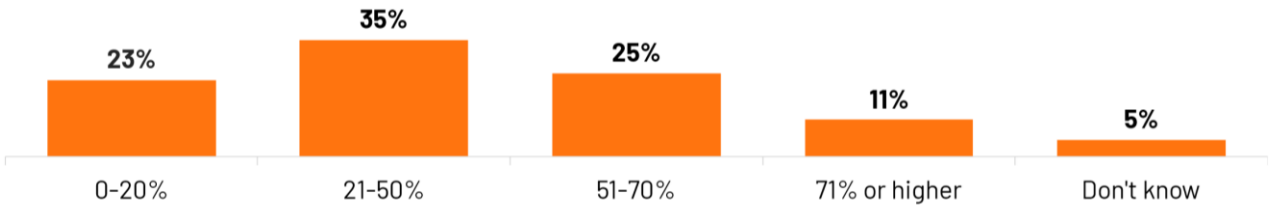
Plug in time for charging showed that this was spread throughout various points of the day for EV drivers with the most common plug in times being the morning (8am to 11:59 am) (27% of charges) and the evening (4pm to 7:59pm) (22% of charges). The least common time was late evening (8pm to 11:59pm) (9% of charges).

Plug out time for charging showed a slightly different pattern with the most common times being the morning (8am to 11:59am) (23% of charges), early morning (4am to 7:59am) (22% of charges) and the afternoon (midday to 3:59pm) (21% of charges).

8.7 EV battery levels when charging

The mean battery level when plugging the vehicle into charge was 44%. The most common battery percentage at the start of the charge was 21-50% with just over one third (35%) of EV drivers plugging it in at this battery level. The least common battery percentage was 71% or higher with only 11% of EV drivers plugging the vehicle in when the battery percentage was at this level (Figure 8.3).

Figure 8.3: Typical battery percentage when plugging in during the travel and charging diary



EV drivers
C3a/b. What is the battery percentage (%) of the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] as you are plugging it in to charge?
Base: UK adults aged 17-65 who have driven battery/plug-in hybrid electric vehicle for personal use in the last 6 months who took part in the diary: BEV (41), PHEV (36)

For the vast proportion of charges (88%) the battery percentage was 71% or higher when the vehicle was unplugged indicating that the battery capacity was high at the point of completing charging.

8.8 Cost for charging

The proportion of charges at home that were made using off-peak rates were lower than peak charging at home (43% of charges made with off-peak charging rates compared to 51% of charges made using peak rates).

Similarly, slightly more charges at home were made with non-smart home chargers compared to smart home chargers (40% of charges made with smart charging compared to 56% of charges made not using smart charging).

On average the cost of public charging was 41p per kWh. However, the most commonly selected answer was that the EV driver did not know the advertised cost per kWh of the chargepoint they used (37%). The most common cost was 30-69p per kWh (31%) followed by 0-29p per kWh (22%).

8.9 Chargepoint providers

For charges made at public chargepoints the most common chargepoints were those with standard power (22kWh-49kWh) (37%) with rapid chargers (50kWh-149kWh) (21%) and lower power chargers (up to 22kWh) the next most frequently used. Only 7% of charges were made using ultra rapid chargers (150+kWh) and a significant minority did not know the advertised power of the chargepoint used for the charge (17%).

BP Pulse (Chargemaster) and Pod Point were the most commonly used chargepoint providers (17% and 21% respectively) while a significant number of charges were made using an 'other' chargepoint provider (23%) and 19% of charges were made where the EV driver did not know who the chargepoint provider was.

8.10 PHEV battery use

Almost half (47%) of journeys driven using a PHEV were made using electric mode for the whole journey. For the remaining journeys the proportion of the journey made using the battery varied from 3% of journeys where between 81% and 99% of the journey was driven in electric mode to 9% of journeys where only 1% to 10% was driven in electric mode. Only 7% of journeys were made where none of the journey was driven making use of the electric mode.

9 Appendix

Appendix A: Demographic profile of tracker survey sample

	BEV %	PHEV %
Gender		
Male	58	61
Female	41	38
Non-binary	*	-
My gender is not listed	-	*
Prefer not to say	*	-
Age (banded)		
17-34	24	21
35-54	54	57
55-65	22	22
Nation		
England	87	91
Wales	4	3
Scotland	7	6
Northern Ireland	2	*
England region		
North East	3	4
North West	11	8
Yorkshire and the Humber	7	6
West Midlands	7	11
East Midlands	8	11
East of England	10	9
South West	9	7
South East	15	13
Greater London	16	22
Urbanity		
Urban	81	83
Rural	17	15
Working status		
Working (NET)	85	91
Not working (NET)	15	9
Ethnicity		
White British group	78	83
White Other ethnic groups (NET)	6	3
Ethnic minority groups (NET)	16	14
Tenure type		
Owned outright	41	41
Buying on mortgage	45	45
Rent from private landlord	9	7
Rent from council/housing association	4	5
Type of building currently living in		

Detached house	47	39
Semi-detached house	32	36
Terrace house	10	14
Converted flat	2	2
Maisonette	1	*
Flat in a small block of flats (less than 3 floors)	5	5
Flat in a tower block/high rise complex (more than 3 floors)	2	4
Listed building	-	-
Other	1	*
Long term health condition		
Yes	19	17
No	80	81
Year first started driving an EV		
2023 and onwards (NET)	38	39
Before 2023 (NET)	60	58
Household ownership of engine type (one or more)		
Battery electric (BEV)	90	4
Plug-in hybrid (PHEV)	20	92
Petrol	47	44
Diesel	20	22
Non-plug-in hybrid	8	9
Hydrogen fuel cell electric (HFCV)	2	1

Appendix B: Demographic profile of travel and charging diary sample

	BEV %	PHEV %
Gender		
Male	59%	50%
Female	41%	50%
Non-binary	-	-
My gender is not listed	-	-
Prefer not to say	-	-
Age (banded)		
17-34	27%	11%
35-54	59%	75%
55-65	15%	14%
Home charger access		
Dedicated charger installed at home	66%	50%
Alternative method of charging at home	12%	25%
No available method of charging at home	22%	25%
Charger at home (NET)	78%	75%

Appendix C: Data

Table 9.1: Vehicles driven in the past 6 months

SCN1 **In the past 6 months, have you driven any cars or vans for personal use with the following engine/motor type(s)?**
Base: All adults aged 17-65 in the UK who have driven a battery electric vehicle/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

	BEV %	PHEV %
Petrol	47	40
Diesel	18	24
Battery electric vehicle (BEV)	100	-
Plug-in-hybrid electric vehicle (PHEV)	18	100
Non-plug-in hybrid	5	7
Liquified petroleum gas (LPG)	2	2
Bi-fuel	1	-

Table 9.2: Household ownership of vehicles

B1 **Please indicate in the table below how many cars or vans your household have continuous use of, according to the categories below**
Base: All adults aged 17-65 in the UK who have driven a battery electric vehicle/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

	BEV %	PHEV %
Battery electric vehicle (BEV)	90	3
Plug-in-hybrid electric vehicle (PHEV)	20	92
Petrol	47	44
Diesel	20	22
Non-plug-in hybrid	7	9
Hydrogen fuel cell electric vehicle (HFCV)	2	1
Other engine/motor type	1	1

Table 9.3: New or used EV at time of acquisition

B8a **From the following options, what best describes the BEV/PHEV you drive most often, when you first got it?**
Base: All adults aged 17-65 in the UK who have driven a battery electric vehicle/plug-in hybrid electric vehicle for personal use in the last 6 months (1007)

	EV %
A new car or van	79
A used car or van	21
Don't know	1

Table 9.4: Access to off-street parking

D1a/D1b **Do you have access to off-street parking for the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] you drive most often at your normal home address?**
Base: All adults aged 17-65 in the UK who have driven a battery electric vehicle/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

	BEV %	PHEV %
Yes - I have access to off-street parking	90	88
No - I do not have access to off-street parking	9	11
Don't know	1	1

Table 9.5: Home parking access among those with off-street parking

D1c/D1d **Which of the following best describes your access to off-street parking for the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] drive most often at your home?**
Base: All adults aged 17-65 in the UK who have driven a battery electric vehicle/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

	BEV %	PHEV %
On a private driveway or in a garage next to my house	85	85
On a private driveway or in a garage not next to my house	6	5
In a communal car park with an allocated space (not including carports)	6	6
In a communal car park with no allocated spaces (not including carports)	1	3
In a communal carport with an allocated space	1	2
In a communal carport with no allocated spaces	-	-
Don't know	-	-

Table 9.6: Home parking access among those without off-street parking

D2a/D2b **Which of the following best describes your access to parking for the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] drive most often at your home?**
Base: All adults aged 17-65 in the UK who have driven a battery electric vehicle and do not have access to off-street parking: BEV (60), PHEV (31)

	BEV N=	PHEV N=
In front of or near my home, in an allocated space	19	2
In front of or near my home, in an unallocated space	28	23

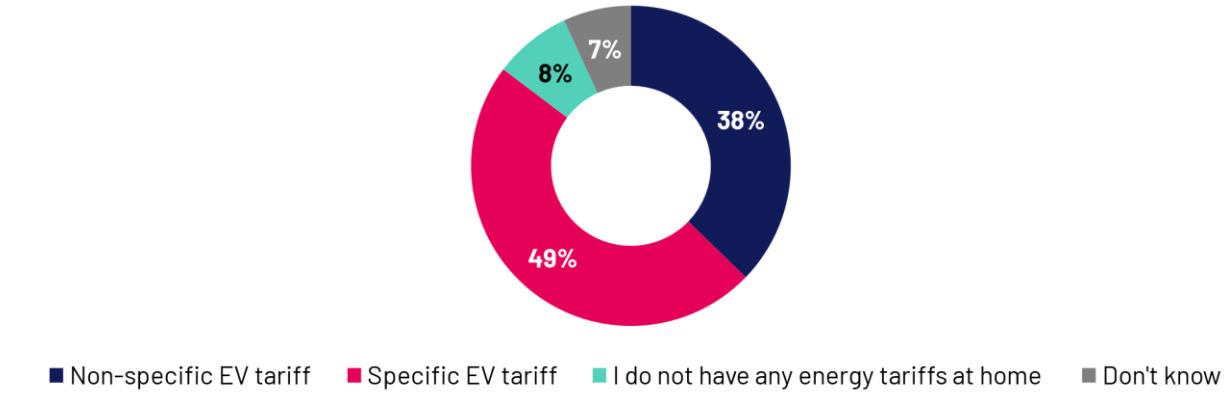
On my street, but not in front of or near my home	3	3
On a neighbouring street	2	2
In a public council car park	1	1
In a private car park	5	2
Other access to parking	2	1
Don't know	-	-

Table 9.7: Factors that would make BEV drivers confident driving long distance journeys

C7 **If you were making a journey of 100 miles or more as a driver, which factors would be important to ensure you were confident driving a battery electric vehicle (BEV)?**
Base: All adults aged 17-65 in the UK who have driven a battery electric vehicle for personal use in the last 6 months (698)

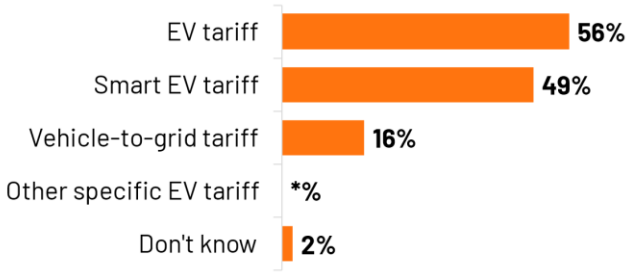
	BEV %
Driving range of battery electric vehicle (BEV)	62
Ability to plan route in advance to include stops to charge	54
Distance between charging locations	52
Ability to view locations of charge points on a map	51
Number of available rapid (50kW to 149kW) battery electric vehicle (BEV) charging points on route	46
Number of available ultra rapid (150kW+) battery electric vehicle (BEV) charging points on route	44
Cost of charging the battery electric vehicle (BEV)	42
Impact that weather conditions have on driving range	29
Road signage for charging locations	24
Other	1
Don't know	1
Number of rapid or ultra rapid chargers (NET)	64

Figure 9.1: Energy tariff among those who have a home charger



EV drivers
E11a. Which of the following energy tariffs do you have at home?
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle and have a method of charging at home (908)

Figure 9.2: Specific EV energy tariff at home



EV drivers
E11b. Which of the following specific EV energy tariffs do you have at home?
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle and have a specific EV energy tariff (448)

Table 9.8: Type of home charger

E2a/ E2b **Which of these statements best describes the type of charger for your [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] you drive most often at home?**
Base: All adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months and have a method of charging at home: BEV (616), PHEV (251)

	BEV %	PHEV %
I have a smart home charger - connected to the internet so it can be operated remotely to optimise energy consumption	74	58
I have a non-smart home charger - not connected to the internet so it cannot be operated remotely to optimise energy consumption	24	37
Don't know	2	4

Table 9.9: Type of non-smart home charger

E3a/ E3b **Which of these statements best apply to your non-smart home charger?**
Base: All adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months and have a non-smart home charger: BEV (146), PHEV (94)

	BEV %	PHEV %
I can set a specific time period for the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] to be charged	52	36
I cannot set a specific time period for the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] to be charged	43	54
Don't know	5	10

Table 9.10: Prevalence of cross-pavement solution among those who have an alternative method of charging at home

E5 **Do you have a cross-pavement solution (e.g. gully) installed through your pavement or driveway to allow you to run a concealed extension cable from your home to a car or van?**
Base: All adults aged 17-65 in England who have driven a battery and or plug-in hybrid electric vehicle and have a method of charging at home on street and aware of gully charging (24)

	EV N=
Yes – have a cross-pavement solution	12
No – do not have a cross-pavement solution	10
Don't know	1

Table 9.11: Home charger installation

E6 **When was your home charger installed in your home?**
Base: All adults aged 17-65 in the UK who have driven a battery and or plug-in hybrid electric vehicle and have a dedicated charger at home (700)

	EV %
Whilst the house was being built - installed by builders during new build/major refurbishment phase	10
After the house was built - installed by previous owners / tenants	11

After the house was built - installed by me or another member of my household	78
Don't know	1

Table 9.12: Access to home charger outside of the household

E7 **Does anyone outside your household use your at-home charger for a battery electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV)?**
Base: All adults aged 17-65 in the UK who have driven a battery and or plug-in hybrid electric vehicle and have a dedicated charger at home (700)

	EV %
Yes - for a cost	15
Yes - for free	11
No - no one else uses the home charger	73
Don't know	*

Table 9.13: Willingness to use vehicle-to-grid technology

E15 **To what extent would you be willing or unwilling to use 'vehicle-to-grid' technology in the UK?**
Base: All adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months and are aware of vehicle-to-grid technology (467)

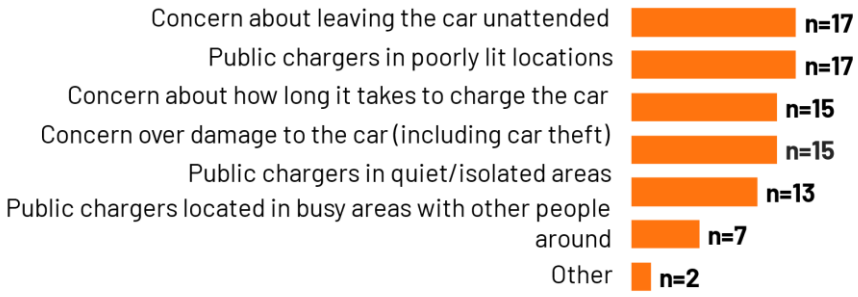
	EV %
Very willing	39
Fairly willing	44
Neither willing nor unwilling	11
Fairly unwilling	3
Very unwilling	1
Don't know	2
Willing (NET)	83
Unwilling (NET)	4

Table 9.14: Frequency of using third-party apps or integrated system in vehicle to help plan when and where to stop and charge

F5a/ F5b **Thinking about the last 12 months, when driving journeys in a [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)], how often have you used a third-party app on a mobile phone or integrated system in the battery electric vehicle (BEV) to help plan when and where you will stop and charge?**
Base: All adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

	BEV %	PHEV %
Always	23	12
Sometimes	42	32
Hardly ever	13	13
Never	14	37
Don't know	3	2
Not applicable	5	5

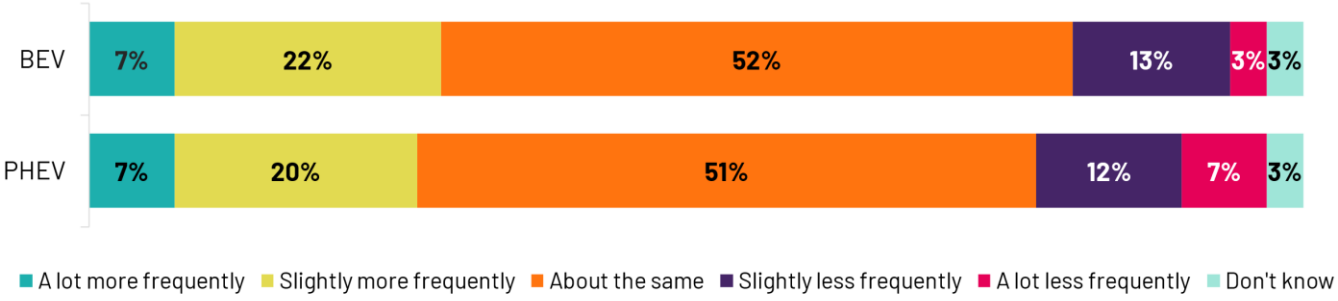
Figure 9.3: Reasons for feeling unsafe using public chargepoints



EV drivers

G6. Why did you give that answer [feeling fairly unsafe or very unsafe]?
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle who use public chargepoints at least 1-2 times a year and reported feeling fairly unsafe or very unsafe (n=27)

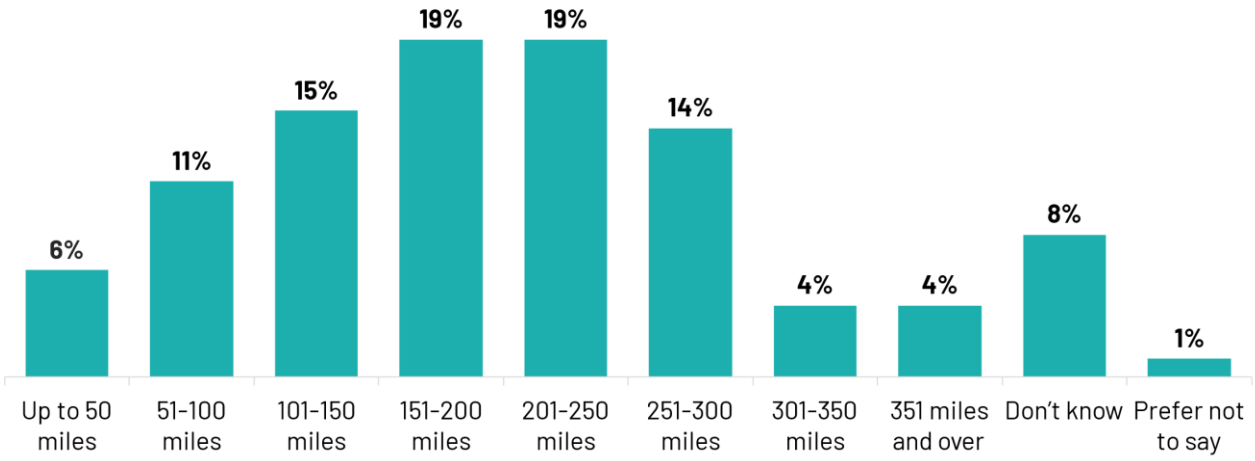
Figure 9.4: Actual charging frequency compared to expectations



BEV and PHEV drivers

H1a/b. Do you charge the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] you drive most often more or less frequently than you had expected to before buying it?
Base: UK adults aged 17-65 who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

Figure 9.5: Typical experienced BEV battery range in the past 3 months

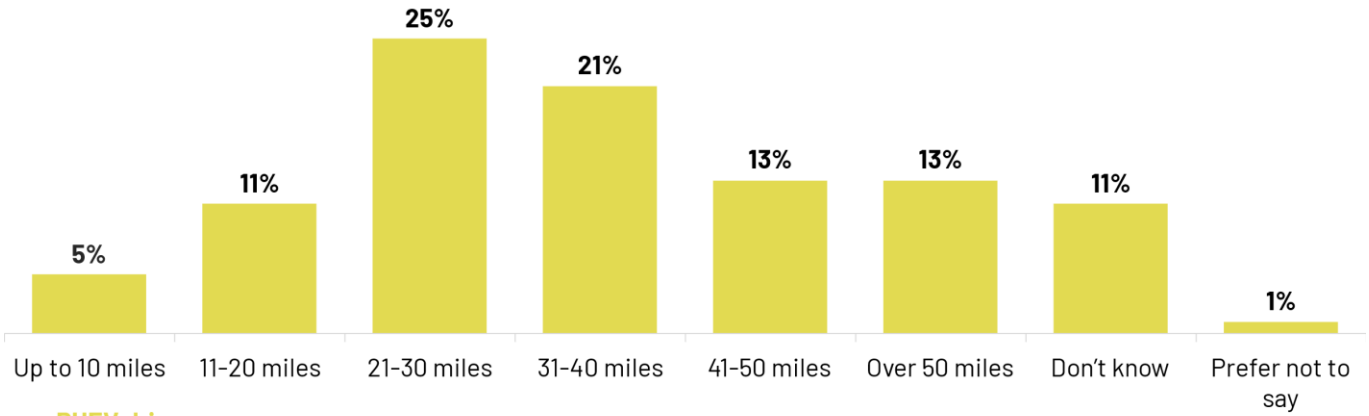


BEV drivers

H2a. In the past three months, what is the typical mile range you have experienced when driving the battery electric vehicle (BEV) you drive most often?

Base: UK adults aged 17-65 who have driven a battery electric vehicle for personal use on the last 6 months: BEV (698)

Figure 9.6: Typical experienced PHEV battery range in the past 3 months

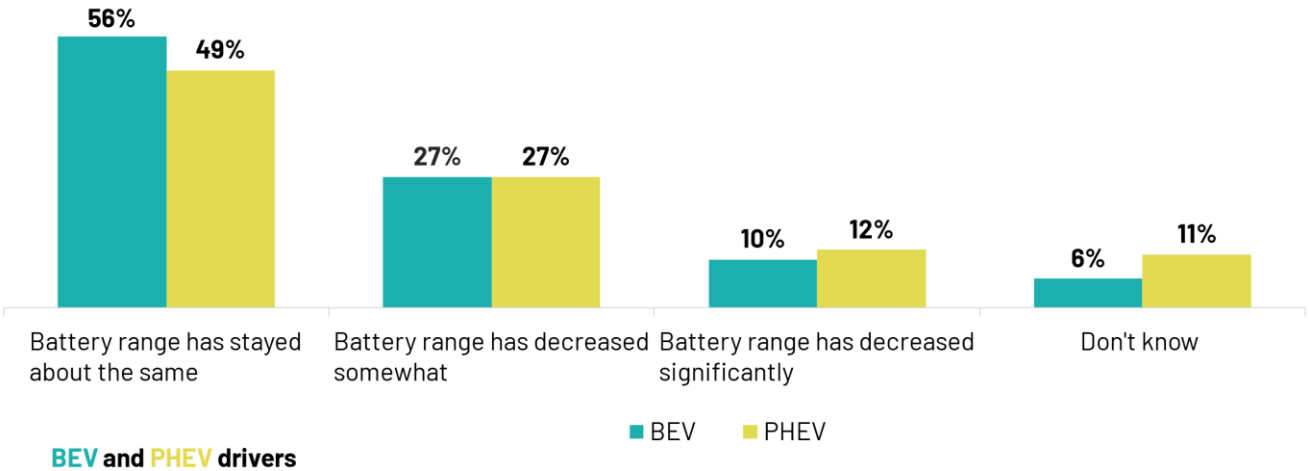


PHEV drivers

H2b. In the past three months, what is the typical mile range you have experienced when driving the plug-in hybrid electric vehicle (PHEV) you drive most often?

Base: UK adults aged 17-65 who have driven a plug-in hybrid electric vehicle for personal use on the last 6 months: BEV (698)

Figure 9.7: Perceived battery range change since first getting BEV/PHEV (excluding temporary factors)

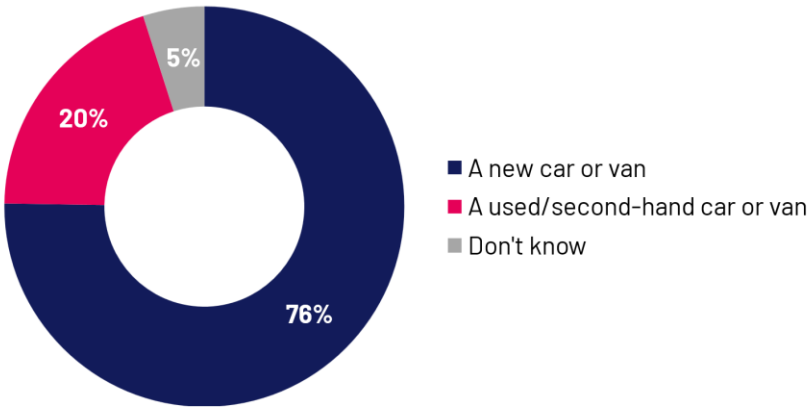


BEV and PHEV drivers

H3a/b. Thinking about the battery range of the [battery electric vehicle (BEV)/plug-in hybrid electric vehicle (PHEV)] you drive most often, when you first got it compared to now, which of the following best describes your experience? Please exclude any temporary reductions due to weather or other temporary factors such as air conditioning.

Base: UK adults aged 17-65 who have driven a battery/plug-in electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

Figure 9.8: Future purchase/lease intentions: new compared to used car



EV drivers

B14. You mentioned that if you were to buy or lease a car or van in the future for personal use, it would most likely be a XXX, would it most likely be...

Base: UK adults aged 17-65 who have driven a battery electric/plug-in hybrid vehicle for personal use in the last 6 months and intent to buy/lease a car/van in the future for personal use (950)

Table 9.15: Contacted a consumer advisory service, made a formal complaint or attempted to make one regarding BEVs or PHEVs

G9a/ G9b **Have you ever contacted a consumer advisory service, made a formal complaint or attempted to make one regarding BEVs/PHEVs?**
Base: All adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months: BEV (698), PHEV (309)

	BEV %	PHEV %
Yes – contacted a consumer advisory service, made a formal complaint or attempted to make one	15	12
No – never contacted a consumer advisory service, made a formal complaint or attempted to make one	83	85
Don't know	3	2

Table 9.16: Reason for contacting consumer advisory service or making a formal complaint

G10a/ G10b **Which of the following issues best describes the reason you contacted a consumer advisory service, made a formal complaint or attempted to make one regarding BEVs/PHEVs?**
Base: All adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months and have made a formal complaint: BEV (100), PHEV (35*) *caution small base size

	BEV %	PHEV* %
Purchase of the BEV/PHEV	30	27*
Leasing of the BEV/PHEV	13	23*
Quality / performance of the BEV/PHEV	41	44*
Manufacturer's warranty of the BEV/PHEV	29	39*
Servicing / repairs of the BEV/PHEV	33	43*
Charging of the BEV/PHEV (including public charging and home charging)	52	45*
Other issue	2	-
Don't know	-	-

Table 9.17: Charging related reasons for contacting consumer advisory service or making a formal complaint

G11a/ G11b **What best describes the issue with charging the BEVs/PHEVs?**
Base: All adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months and have made a formal complaint regarding charging: BEV (53*), PHEV (17*) *caution small base size

	BEV %	PHEV %
Use of public chargepoints	47*	9*

Access to public chargepoints	29*	19*
Public chargepoint not working even though it said it was working on an app	33*	26*
Installation of home charger	28*	62*
Installation of workplace charger	36*	45*
Home / public chargepoint functionality	24*	11*
Purchase of a bundled service (e.g. home charger and access to public chargers)	24*	40*
Access to a specific EV tariff		32*
Other issue	2*	-
Don't know	2*	-

Table 9.18: Health condition and any impact on ability to use public chargepoint

I3 **Does your condition or related illnesses impact your ability to personally use public chargepoints?**

Base: All adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months and have a physical or mental condition: EV (130)

	EV %
Yes, it makes it more difficult	16
Yes, it makes it easier	2
No, it doesn't impact my ability to use public charging points	75
I have not tried to use a public charging point since having this condition/illness	3
Don't know	2
Prefer not to say	2

Table 9.19: Experiences using/finding public chargepoints among those with health condition which impacts use of public chargepoint

I4 **Thinking about your experiences with public chargepoints, how easy or difficult would you say it is to...**

Base: All adults aged 17-65 in the UK who have driven a battery/plug-in hybrid electric vehicle for personal use in the last 6 months and have a physical or mental condition that makes using public chargepoints more difficult: EV (21*) *caution small base size

	EV %	
	...find a public chargepoint you can use	...use a public chargepoint you can find
Very easy	4*	-
Fairly easy	30*	20*
Neither easy nor difficult	24*	35*

Fairly difficult	33*	35*
Very difficult	5*	10*

Appendix D: Tracker questionnaire

EV Driver Annual Tracking survey

SCREENING CRITERIA:
UK ADULTS AGED 17-65 WITH A BEV OR PHEV
RESP_AGE = 17-65
SCN1 = 3 OR 5

The next questions are about vehicle usage.

Section A: Screening questions

ASK ALL
SCN1. In the past 6 months, have you driven any cars or vans for personal use with the following engine/motor type(s)?
Please only include cars or vans you personally own or have continuous use of.
Please include any company car(s) or van(s) available for personal use.
Please select all that apply
MULTI CODE 1-8
1. Petrol
2. Diesel
3. Electric/battery only **(i) [MUST CODE 3 OR 5 TO CONTINUE SURVEY, REST SCREENED OUT]**
4. Non-plug-in hybrid **(i)**
5. Plug-in hybrid **(i) [MUST CODE 3 OR 5 TO CONTINUE SURVEY, REST SCREENED OUT]**
6. Liquified Petroleum Gas (LPG)
7. Bi-fuel (a combination of any two of petrol or diesel or ethanol with natural gas or LPG)
8. Other (please specify)
9. I have not driven a car or van in the past 6 months **[EXCLUSIVE]**

998. Don't know **[EXCLUSIVE]**
999. Prefer not to say **[EXCLUSIVE]**

(i) POP-UP DEFINITION AVAILABLE FOR CODE 3 AT SCN1
Electric or battery vehicle relies entirely on electricity for fuel and can be plugged into the mains. It has a battery pack and electric motor. The vehicle cannot be filled up with any type of fuel.
(i) POP-UP DEFINITION AVAILABLE FOR CODE 4 AT SCN1
Non-plug-in hybrid vehicle is mostly powered by an internal combustion engine and uses electricity to help drive the wheels. The battery is only recharged when the vehicle is in use and cannot be plugged into the mains. The vehicle requires petrol or diesel to fuel the internal combustion engine.
(i) POP-UP DEFINITION AVAILABLE FOR CODE 5 AT SCN1
Plug-in hybrid vehicle combines both a battery pack and electric motor with an internal combustion engine. Both the electric motor and the internal combustion engine can drive the wheels. The battery is recharged by plugging it into the mains, though it can also be partly recharged when in use. The vehicle requires petrol or diesel to fuel the internal combustion engine.

CREATE VARIABLE FOR ROUTING
HIDDEN VARIABLE
D_ENGINETYPE. VARIABLE TO CAPTURE ENGINE TYPE FOR ROUTING THROUGH THE QUESTIONNAIRE.

EXPLANATION – BEV QUESTIONS ARE TO BE SHOWN TO BEV ONLY DRIVERS AND BEV+PHEV DRIVERS. PHEV QUESTIONS ARE TO BE SHOWN TO PHEV DRIVERS WHO DON'T DRIVE A BEV.

CODE 1	BEV driver	CODE IF CODE 3 AT SCN1
CODE 2	PHEV driver	CODE IF CODE 5 AT SCN1
CODE 3	BEV and PHEV driver	CODE IF CODE 3 AND 5 AT SCN1

ASK ALL
YEAR/MONTH. What is your date of birth?
☐ YEAR
☐ _1910 1910
☐ ...
☐ _2015 2015
☐ MONTH
☐ _1 January

☐ _2 February
☐ _3 March
☐ _4 April
☐ _5 May
☐ _6 June
☐ _7 July
☐ _8 August
☐ _9 September
☐ _10 October
☐ _11 November
☐ _12 December

ASK ALL

GenderIdentity. Which of the following best describes your gender?

1. Man
2. Woman
3. Non-binary
4. My gender is not listed
5. Prefer not to say

ASK ALL

QMktSize_GB. Where do you live?

Please note: This question may be considered personal. We would like to remind you that your participation is strictly voluntary and that your responses are used for research purposes only. The answers that you provide will be presented in aggregate form and none of them will be linked back to you in any way. All data will be collected and processed in adherence to the Market Research Society's Code of Conduct and the General Data Protection Regulation (GDPR).

Postcode **Prefer Not to Answer**

ASK ALL

UKREGION1. Where do you live?

1. North East
2. North West
3. Yorkshire and The Humber
4. West Midlands
5. East Midlands
6. East of England
7. South West
8. South East
9. Greater London
10. Wales
11. Scotland
12. Northern Ireland

ASK ALL

HHCMP10. How many people are living or staying at your current address? (Include yourself and any other adults or children who are currently living or staying at this address for at least two months)

☐ _1 1
☐ _2 2
☐ _3 3
☐ _4 4
☐ _5 5
☐ _6 6
☐ _7 7
☐ _8 8
☐ _9 9
☐ _10 10
☐ _11 11
☐ _12 12+

ASK ALL

DKIDS02. Please provide us with the following information about the children under the age of 18 in your household. Please reference only the children for which you are the parent or legal guardian.

- ☐ Gender
- ☐ _1 Boy
- ☐ _2 Girl
- ☐ Year of birth
- ☐ Month of birth

ASK ALL

KIDS02. How many children under the age of 18 are living in your household? Please reference only the children for which you are the parent or guardian.

ASK ALL

ETHCONSENT01. The next question will be about ethnicity. A "Prefer not to answer" option is available for you to select, at your discretion. Collecting such information enables us to provide a more refined research analysis. Participation is always voluntary, and your responses are used for research purposes only, combined with the answers from all other participants. We will provide our client only anonymous, aggregated results. The data will be held for no longer than 12 months. Do you accept the collection of race and ethnicity related data?

SINGLE CODE

1. Yes, I accept.
2. No, I don't accept.

ASK ALL

UK02ETH. What is your ethnic group?

SINGLE CODE

1. White
    - _1 English / Welsh / Scottish / Northern Irish / British
    - _2 Irish
    - _3 Gypsy or Irish Traveller
    - _4 Any other White background
2. Mixed / multiple ethnic groups [Expandable Header]
    - _5 White and Black Caribbean
    - _6 White and Black African
    - _7 White and Asian
    - _8 Any other Mixed / multiple ethnic background
3. Asian / Asian British
    - _9 Indian
    - _10 Pakistani
    - _11 Bangladeshi
    - _12 Chinese
    - _13 Any other Asian background
4. Black / African / Caribbean / Black British
    - _14 African
    - _15 Caribbean
    - _16 Any other Black / African / Caribbean background
5. Other ethnic group
    - _17 Arab
    - _18 Any other ethnic group
    - _19 Prefer not to answer
    - _98 Consent not granted [Hidden for the respondent]

ASK ALL

B1. Please indicate in the table below how many cars or vans your household have continuous use of, according to the categories below.

ALLOW FOR NUMERIC RESPONSE IN GRID BOXES – FORCE ENTRY AT EACH STATEMENT (ALLOW VALUES 0-20 ONLY) ALLOW FOR (i) POPUP AS PER SCN1

1. Petrol engine
2. Diesel engine
3. Non-plug-in hybrid vehicle (i)
4. Plug-in hybrid electric (PHEV) (i)
5. Battery electric vehicle (BEV) (i)
6. Hydrogen Fuel Cell Electric Vehicle (HFCV) (has an electric motor but does not have a battery and does not plug in to charge)

7. Other engine/motor type

CREATE VARIABLE FOR ROUTING
HIDDEN VARIABLE
D_HOUSEHOLDOWNERSHIP. HIDDEN VARIABLE TO CAPTURE NUMBER OF ENGINE TYPES OWNED

CODE 1	1 BEV	CODE IF CODE 5 ONLY=1 AT B1
CODE 2	1 PHEV	CODE IF CODE 4 ONLY=1 AT B1
CODE 3	1 BEV and 1 PHEV	CODE IF CODE 5=1 AND 4=1 AT B1
CODE 4	2 or more BEVs	CODE IF CODE 5 =2+ AT B1
CODE 5	2 or more PHEVs	CODE IF CODE 4 =2+ AT B1

ASK IF D_HOUSEHOLDOWNERSHIP=1 OR 3 OR 4
B2a. Thinking about any battery electric vehicles (BEV) your household has continuous use of, are any leased or purchased through salary sacrifice?

Salary sacrifice for a car or van is a scheme where an employee can get a new, used or leased vehicle through their employer by giving up a portion of their salary before income tax and National Insurance contributions are deducted.

Please select one option only
SINGLE CODE
1. Yes – got at least one battery electric vehicle (BEV) through salary sacrifice
2. No – got no battery electric vehicle (BEV) through salary sacrifice
3. Don't know

ASK IF D_HOUSEHOLDOWNERSHIP=2 OR 3 OR 5
B2b. Thinking about any plug-in hybrid electric vehicles (PHEV) your household has continuous use of, are any leased or purchased through salary sacrifice?

Salary sacrifice for a car or van is a scheme where an employee can get a new, used or leased vehicle through their employer by giving up a portion of their salary before income tax and National Insurance contributions are deducted.

Please select one option only
SINGLE CODE
1. Yes – got at least one plug-in hybrid electric vehicle (PHEV) through salary sacrifice
2. No – got no plug-in hybrid electric vehicle (PHEV) through salary sacrifice
3. Don't know

ASK IF SCN1=2 OR MORE CODES SELECTED
B3. The car or van I drive most often is a…

Please select one option only
SINGLE CODE, ONLY SHOW OPTIONS SELECTED AT SCN1, ALLOW FOR (i) POPUP AS PER SCN1
1. Petrol engine vehicle
2. Diesel engine vehicle
3. Battery electric vehicle (BEV) (i)
4. Non-plug-in hybrid vehicle (i)
5. Plug-in hybrid electric (PHEV)
6. Liquified Petroleum Gas (LPG)
7. Bi-fuel (a combination of any two of petrol or diesel or ethanol with natural gas or LPG
8. Another vehicle **[IF OTHER (CODE 8) AT SCN1 SELECTED | PIPE IN RESPONSE]**

ASK IF SCN1=2 OR MORE CODES SELECTED
B4. Why do you use this car or van most often?
MULTI CODE 1-10, RANDOMISE CODES 1-9
1. Mileage range
2. Refuel/recharge time
3. Reliability of refuelling/charging stations
4. Availability of fuel/charging stations
5. It is the car/van I am most familiar with/that I own
6. Environmentally friendly
7. Cost to run (e.g. fuel/charging)

8. Other car/van(s) are often unavailable
9. Driving experience (e.g. comfort, noise, acceleration, space, luggage capacity)
10. Other reason(s) (please specify) **[FIX]**
11. Don't know **[FIX] [EXCLUSIVE]**

ASK IF SCN1=2 OR MORE CODES SELECTED
B5. You mentioned you drive at least one other car or van. Thinking about these other cars or vans, what type of engine/motor powers the car or van you drive second most often?

Please select one option only
SINGLE CODE, IF SELECTED TWO ENGINE TYPES AUTOFILL OPTION NOT SELECTED AT QUESTION B3 AND DON'T SHOW QUESTION

ONLY SHOW OPTIONS SELECTED AT SCN1. DO NOT SHOW OPTION SELECTED AT QUESTION B3

[NEW SCREEN]
ASK IF D_ENGINETYPE=1 OR 3 (BEV or BEV and PHEV driver)
B_TEXTa. Next, we would like to ask a few questions about how you got the battery electric vehicle (BEV) that you drive most often and what your future car or van ownership plans may be.

[NEW SCREEN]
ASK IF ASK IF D_ENGINETYPE=2 (PHEV driver)
B_TEXTb. Next, we would like to ask a few questions about how you got the plug-in hybrid electric vehicle (PHEV) that you drive most often and what your future car or van ownership plans may be.

ASK IF D_ENGINETYPE=1 OR 3 (BEV or BEV and PHEV driver)
B6a. Is the battery electric vehicle (BEV) that you drive most often a car or a van?
SINGLE CODE
1. Car
2. Van

ASK IF D_ENGINETYPE=1 OR 3 (BEV or BEV and PHEV driver) AND B6a=1 (CAR)
FOR MAKE: USE TYPE AND SEARCH FUNCTIONALITY. ALLOW OPEN END TEXT TO BE ENTERED HERE IF MAKE OF CAR NOT ON THE LIST
FOR MODEL: SINGLE CODE – SHOW ALL MODELS APPLICABLE IN USUAL ANSWER OPTION LIST
B6b. What make and model is the battery electric CAR you drive most often?

DISPLAY ABOVE Make drop down: Please type in the name of the make of your car (e.g. Ford, Honda, etc.) and select the make from the available list. If the make of your car does not appear on the list, please just type the make and then enter model in the "Other model" text box below.

DISPLAY ABOVE Model drop down: Please select the model from the drop-down list shown. If your model is not on the list please type this in to the "Other model" text box.

SINGLE CODE. *LIST IN SEPARATE DOCUMENT – LIST NAME "INSERT HERE"*

ASK IF D_ENGINETYPE=1 OR 3 (BEV or BEV and PHEV driver) AND B6a=2 (VAN)
FOR MAKE: USE TYPE AND SEARCH FUNCTIONALITY ALLOW OPEN END TEXT TO BE ENTERED HERE IF MAKE OF CAR NOT ON THE LIST
FOR MODEL: SINGLE CODE – SHOW ALL MODELS APPLICABLE IN USUAL ANSWER OPTION LIST
B6d. What make and model is the battery electric VAN you drive most often?
SINGLE CODE. *LIST IN SEPARATE DOCUMENT – LIST NAME "INSERT HERE"*

DISPLAY ABOVE Make drop down: Please type in the name of the make of your van (e.g. Ford, Honda, etc.) and select the make from the available list. If the make of your van does not appear on the list, please just type the make and then enter model in the "Other model" text box below.

DISPLAY ABOVE Model drop down: Please select the model from the drop-down list shown. If your model is not on the list please type this in to the "Other model" text box.

ASK IF D_ENGINETYPE=2 (PHEV DRIVER)
B7a. Is the plug-in hybrid electric vehicle (PHEV) that you drive most often a car or a van?
SINGLE CODE
1. Car

2. Van

ASK IF D_ENGINETYPE=2 (PHEV driver) AND B7a=1 (CAR)
FOR MAKE: USE TYPE AND SEARCH FUNCTIONALITY ALLOW OPEN END TEXT TO BE ENTERED HERE IF MAKE OF CAR NOT ON THE LIST
FOR MODEL: SINGLE CODE – SHOW ALL MODELS APPLICABLE IN USUAL ANSWER OPTION LIST
B7b. What make and model is the plug-in hybrid electric CAR you drive most often?
LIST IN SEPARATE DOCUMENT – LIST NAME "INSERT HERE"

DISPLAY ABOVE Make drop down: Please type in the name of the make of your car (e.g. Ford, Honda, etc.) and select the make from the available list. If the make of your car does not appear on the list, please just type the make and then enter model in the "Other model" text box below.

DISPLAY ABOVE Model drop down: Please select the model from the drop-down list shown. If your model is not on the list please type this in to the "Other model" text box.

ASK IF D_ENGINETYPE=2 (PHEV driver) AND B7a=2 (VAN)
FOR MAKE: USE TYPE AND SEARCH FUNCTIONALITY ALLOW OPEN END TEXT TO BE ENTERED HERE IF MAKE OF CAR NOT ON THE LIST
FOR MODEL: SINGLE CODE – SHOW ALL MODELS APPLICABLE IN USUAL ANSWER OPTION LIST
B7d. What make and model is the plug-in hybrid electric VAN you drive most often?
LIST IN SEPARATE DOCUMENT – LIST NAME "INSERT HERE"

DISPLAY ABOVE Make drop down: Please type in the name of the make of your van (e.g. Ford, Honda, etc.) and select the make from the available list. If the make of your van does not appear on the list, please just type the make and then enter model in the "Other model" text box below.

DISPLAY ABOVE Model drop down: Please select the model from the drop-down list shown. If your model is not on the list please type this in to the "Other model" text box.

ASK ALL
B8a. From the following options, what best describes the [SHOW IF D_ENGINETYPE=1 OR 3 "battery electric vehicle (BEV)", ASK IF D_ENGINETYPE=2 "plug-in hybrid electric vehicle (PHEV)"] you drive most often, when you first got it?

Please select one option only
PROGRESSIVE GRID, SINGLE CODE
1. A new car or van
2. A used car or van
3. Don't know

ASK ALL
GRID
B8b. And also, from the following options, what best describes the [SHOW IF D_ENGINETYPE=1 OR 3 "battery electric vehicle (BEV)", ASK IF D_ENGINETYPE=2 "plug-in hybrid electric vehicle (PHEV)"] you drive most often currently? Is it…

Please select one option only
SINGLE CODE
1. Owned outright
2. Currently being paid for with a loan or a credit card
3. Leased through the Motability Scheme
4. Leased through a personal contract purchase agreement (PCP)
5. Leased through a hire purchase agreement (HP)
6. Leased without the option to buy
7. Leased or owned in a different way
8. Don't know

ASK IF B8b=1
GRID
B9. You said that you own the [SHOW IF D_ENGINETYPE=1 OR 3 "battery electric vehicle (BEV)", ASK IF D_ENGINETYPE=2 "plug-in hybrid electric vehicle (PHEV)"] you drive most often outright. Was it…

Please select one option only

SINGLE CODE
RANDOMISE CODES 1-4
1. Paid for up front with your own money or with help from someone else such as a partner or family member or friend
2. Paid for entirely or partly with a loan or a credit card
3. Given to you as a gift or as an inheritance
4. Transferred into your ownership after leasing the vehicle previously or at the end of a hire purchase agreement
5. Paid for or acquired in a different way
6. Don't know

ASK ALL
B10. What year was the [SHOW IF D_ENGINETYPE=1 OR 3 "battery electric vehicle (BEV)", ASK IF D_ENGINETYPE=2 "plug-in hybrid electric vehicle (PHEV)"] you drive most often manufactured?
Manufactured refers to the year the car or van was made, rather than the year you bought it.

Please type the year in the box below
NUMERIC | ALL YEARS BETWEEN 1959-2024
[NUMERIC BOX – MIN AND DIGITS]
1. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
B11a. What is the advertised range of the battery electric vehicle (BEV) that you drive?

If you drive more than one then think about the one you drive most often.
SINGLE CODE
1. Up to 50 miles (Up to 81 kilometres)
2. 51-100 miles (82-161 kilometres)
3. 101-150 miles (162-242 kilometres)
4. 151-200 miles (243-322 kilometres)
5. 201-250 miles (323-402 kilometres)
6. 251-300 miles (403-483 kilometres)
7. 301-350 miles (484-563 kilometres)
8. 351-400 miles (564-644 kilometres)
9. Over 400 miles (Over 644 kilometres)
10. Don't know
11. Prefer not to say

ASK IF D_ENGINETYPE=2 (PHEV driver)
B11b. What is the advertised electric range of the plug-in hybrid vehicle (PHEV) that you drive?

If you drive more than one plug-in hybrid vehicle (PHEV), then think about the one you drive most often.
SINGLE CODE
1. Up to 20 miles (Up to 32 kilometres)
2. 21-30 miles (33-48 kilometres)
3. 31-40 miles (49-64 kilometres)
4. 41-50 miles (65-80 kilometres)
5. Over 50 miles (Over 80 kilometres)
6. Don't know
7. Prefer not to say

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
B12a. What year did you first drive a battery electric vehicle (BEV)?

This does not have to be the current battery electric vehicle (BEV) you drive.
Please type in the year in the box below
NUMERIC | ALL YEARS BETWEEN 1959-2024
[NUMERIC BOX – MIN AND MAX 4 DIGITS]
1. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver)
B12b. What year did you first drive a plug-in hybrid electric vehicle (PHEV).
This does not have to be the current plug-in hybrid electric vehicle (PHEV) you drive.

Please type in the year in the box below

NUMERIC | ALL YEARS BETWEEN 1959-2024

[NUMERIC BOX – MIN AND MAX 4 DIGITS]
1. Don't know

ASK ALL
B13. If you intend to buy or lease a car or van in the future for personal use, what type of engine/motor would it most likely have?
If you would buy more than one type, please select which one you would use for your main vehicle.

Please select one option only
SINGLE CODE
1. Petrol engine vehicle
2. Diesel engine vehicle
3. Hybrid vehicle that cannot be plugged in to charge
4. Plug-in hybrid electric (PHEV) (has both a battery-powered electric motor and a petrol/diesel engine that needs to be refuelled)
5. Battery electric vehicle (BEV) (has a battery-powered electric motor only and must be plugged in to charge)
6. Hydrogen Fuel Cell Electric Vehicle (HFCV) (has an electric motor but does not have a battery and does not plug in to charge)
7. Other engine/motor type (please specify)
8. I do not intend to buy or lease a car or van in the future for personal use
9. Don't know

ASK IF B13 = CODES 1-7
B14. You mentioned that if you were to buy or lease a car or van in the future for personal use, it would most likely be a [PIPE IN ANSWER SELECTED B13 1-7], would it most likely be…

Please select one option only
SINGLE CODE
1. A new car or van
2. A used/second-hand car or van
3. Don't know [FIX]

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
B15a. How likely or unlikely would you be to recommend a battery electric vehicle (BEV) to a friend or colleague?

Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. Very likely
2. Fairly likely
3. Neither likely nor unlikely
4. Fairly unlikely
5. Very unlikely
6. Don't know [FIX]

ASK IF D_ENGINETYPE=2 (PHEV driver)
B15b. How likely or unlikely would you be to recommend a plug-in hybrid electric vehicle (PHEV) to a friend or colleague?

Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. Very likely
2. Fairly likely
3. Neither likely nor unlikely
4. Fairly unlikely
5. Very unlikely
6. Don't know [FIX]

Section C: Driving and charging (main vehicle)

SHOW IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
C_TEXTa. This next section will ask about your typical driving routines and charging habits with the battery electric vehicle (BEV) you drive most often.

SHOW IF D_ENGINETYPE=2 (PHEV driver)
C_TEXTb. This next section will ask about your typical driving routines and charging habits with the plug-in hybrid electric vehicle (PHEV) you drive most often.

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
C1a. Thinking about the past month, on average, how often do you personally drive a battery electric vehicle (BEV)?

If you drive more than one battery electric vehicle (BEV), please think about the one you drive most often.

Please select one option only
SINGLE CODE
1. Every day
2. 4-6 days a week
3. 2-3 days a week
4. About once a week
5. Every 2-3 weeks
6. About once a month
7. About once every three months
8. Once or twice a year
9. Less than once a year
10. Never
11. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver)
C1b. Thinking about the past month, on average, how often do you personally drive the plug-in hybrid electric vehicle (PHEV) you drive most often?

If you drive more than one plug-in hybrid electric vehicle (PHEV), please think about the one you drive most often.

Please select one option only
SINGLE CODE
1. Every day
2. 4-6 days a week
3. 2-3 days a week
4. About once a week
5. Every 2-3 weeks
6. About once a month
7. About once every three months
8. Once or twice a year
9. Less than once a year
10. Never
11. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
C2a. On average, how many miles do you drive in a week using the battery electric vehicle (BEV) you drive most often?

Please select one option only
SINGLE CODE
1. 0-10 miles (0-16 kilometres)
2. 11-20 miles (18-32 kilometres)
3. 21-30 miles (34-48 kilometres)
4. 31-40 miles (50-64 kilometres)
5. 41-50 miles (66-80 kilometres)
6. 51-60 miles (82-97 kilometres)
7. 61-70 miles (98-113 kilometres)
8. 71-80 miles (114-129 kilometres)
9. 81-90 miles (130-145 kilometres)
10. 91-100 miles (146-161 kilometres)

11. 101-150 miles (163-241 kilometres)
12. 151-200 miles (243-322 kilometres)
13. 201-300 miles (323-483 kilometres)
14. Over 300 miles (Over 483 kilometres)
15. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver)

C2b. On average, how many miles do you drive in a week using the plug-in hybrid electric vehicle (PHEV) you drive most often?

Please select one option only

SINGLE CODE

1. 0-10 miles (0-16 kilometres)
2. 11-20 miles (18-32 kilometres)
3. 21-30 miles (34-48 kilometres)
4. 31-40 miles (50-64 kilometres)
5. 41-50 miles (66-80 kilometres)
6. 51-60 miles (82-97 kilometres)
7. 61-70 miles (98-113 kilometres)
8. 71-80 miles (114-129 kilometres)
9. 81-90 miles (130-145 kilometres)
10. 91-100 miles (146-161 kilometres)
11. 101-150 miles (163-241 kilometres)
12. 151-200 miles (243-322 kilometres)
13. 201-300 miles (323-483 kilometres)
14. Over 300 miles (Over 483 kilometres)
15. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)

C3a. How often, if at all, do you typically drive long distance journeys in the battery electric vehicle (BEV) you drive most often, where you may need to stop and charge your car or van? That is, journeys of 100 miles or more in one direction.

Please select one option only

SINGLE CODE

1. Every day
2. 4-6 days a week
3. 2-3 days a week
4. About once a week
5. Every 2-3 weeks
6. About once a month
7. About once every three months
8. Once or twice a year
9. Less than once a year
10. Never
11. Don’t know

ASK IF D_ENGINETYPE=2 (PHEV driver)

C3b. How often, if at all, do you typically drive long distance journeys in the plug-in hybrid electric vehicle (PHEV) you drive most often, where you may need to stop and charge your car or van? That is, journeys of 100 miles or more in one direction.

Please select one option only

SINGLE CODE

1. Every day
2. 4-6 days a week
3. 2-3 days a week
4. About once a week
5. Every 2-3 weeks
6. About once a month
7. About once every three months
8. Once or twice a year
9. Less than once a year
10. Never

11. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
C4a. Thinking about the last month, for which of these reasons, if any, have you driven the battery electric vehicle (BEV) you drive most often?

Please select all options that apply
MULTI CODE 1-11, RANDOMISE CODES 1-10
1. Commuting to, or from, your place(s) of work
2. Travelling for business purposes (excluding your usual commute)
3. Travelling to or from your school / college / university
4. Accompanying or escorting children to or from school / college / university
5. Travelling for holiday within the UK purposes, including day trips or longer breaks
6. Travelling for holiday abroad purposes, to get to an airport / station / port
7. Travelling for leisure including visiting friends or family
8. Travelling to medical, hospital or dentist appointments or to access services (e.g. hairdressers, libraries, estate agents and banks)
9. Shopping
10. Travelling to access entertainment / arts such as cinema, theatre, gallery, museum, sporting events, music events and concerts
11. Other reason(s) (please specify) [FIX]
    998. Don't know [FIX] [EXCLUSIVE]

ASK IF D_ENGINETYPE=2 (PHEV driver)
C4b. Thinking about the last month, for which of these reasons, if any, have you driven the plug-in hybrid electric vehicle (PHEV) you drive most often?

Please select all options that apply
MULTI CODE 1-11, RANDOMISE CODES 1-10
1. Commuting to, or from, your place(s) of work
2. Travelling for business purposes (excluding your usual commute)
3. Travelling to or from your school / college / university
4. Accompanying or escorting children to or from school / college / university
5. Travelling for holiday within the UK purposes, including day trips or longer breaks
6. Travelling for holiday abroad purposes, to get to an airport / station / port
7. Travelling for leisure including visiting friends or family
8. Travelling for personal business e.g. medical, dentist, hairdressers, banks etc.
9. Shopping
10. Travelling to access entertainment / arts such as cinema, theatre, gallery, museum, sporting events, music events and concerts
11. Other reason(s) (please specify) [FIX]
    998. Don't know [FIX] [EXCLUSIVE]

ASK ALL
C5a. If you were planning to drive 100 miles or more, which of the following car or van engine/motor type(s) that you have access to would you <u>most likely</u> use? That is a journey in only one direction.

Please select one option only
SINGLE CODE | DISPLAY CODES SELECTED AT SCN1
Additional codes:
1001. I would rent a different car or van
1002. I would borrow a different car or van
1003. I would use a different car or van for a different reason than listed above
1004. Don't know

ASK IF C5a = 1001, 1002, 1003
C5b. What car or van engine/motor type would you most likely [IF C5a=1001 'rent', IF C5a=1002 'borrow', IF C5a=1003 'use'] if you were planning to drive 100 miles or more? That is a journey in only one direction.
SINGLE CODE
1. Petrol
2. Diesel
3. Electric/battery only
4. Non-plug-in hybrid
5. Plug-in hybrid

6. Liquified Petroleum Gas (LPG)
7. Bi-fuel (a combination of any two of petrol or diesel or ethanol with natural gas or LPG)
8. Other (please specify)
13. Don't know

ASK ALL EXCEPT C5a=1004 [DON'T KNOW]
PIPE IN INSTRUCTIONS: ENGINE/MOTOR TYPE PREFERENCE FROM C5a OR C5b.
C6. What are the main reasons you would most likely drive a [SHOW C5a CODE 1-8, IF 1001,1002,1003 AT C5a selected, SHOW CODE AT C5b] engine/motor car or van if you were making a journey of 100 miles or more as a driver? That is a journey in only one direction.

Please select all options that apply
MULTI CODE 1-9, RANDOMISE CODES 1-8
1. Reliability of refuelling / charging stations
2. Availability of fuel / charging stations
3. Mileage range
4. Cost to run (e.g. fuel / charging)
5. Refuel / recharge time
6. Environmental impact
7. It is the car/van I am most familiar with
8. Driving experience (e.g. comfort, noise, acceleration, space, luggage capacity)
9. Other reason(s) (please specify) [FIX]
10. Don't know [FIX] [EXCLUSIVE]

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
C7. If you were making a journey of 100 miles or more as a driver, which factors would be important to ensure you were confident driving a battery electric vehicle (BEV)? That is a journey in only one direction.

Please select all options that apply
MULTI CODE 1-10, RANDOMISE CODES 1-9
1. Number of available rapid (50kW to 149kW) battery electric vehicle (BEV) charging points on route
2. Number of available ultra rapid (150kW+) battery electric vehicle (BEV) charging points on route
3. Cost of charging the battery electric vehicle (BEV)
4. Impact that weather conditions have on driving range
5. Driving range of battery electric vehicle (BEV)
6. Distance between charging locations
7. Ability to plan route in advance to include stops to charge
8. Ability to view locations of charge points on a map
9. Road signage for charging locations
10. Other factor(s) (please specify) [FIX]
11. Don't know [FIX] [EXCLUSIVE]

ASK THOSE WHO SELECTED MORE THAN 1 CODE AT C7 [C7>1 CODE SELECTED]
C8. Which is the most important factor to ensure you were confident driving a battery electric vehicle (BEV) if you were making a journey of 100 miles or more as a driver? That is a journey in only one direction.

Please select one option only
RANDOMISE CODES 1-9
INSERT CODES SELECTED AT C7
998. Don't know [FIX]

Section D: Parking access

SHOW IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
D_TEXTa. Now we will ask some questions about where you usually park the battery electric vehicle (BEV) that you drive most often.

SHOW IF D_ENGINETYPE=2 (PHEV driver)
D_TEXTb. Now we will ask some questions about where you usually park the plug-in electric vehicle (PHEV) that you drive most often.

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)

D1a. Do you have access to off-street parking for the battery electric vehicle (BEV) you drive most often at your normal home address?

Please select one option only
SINGLE CODE
1. Yes – I have access to off-street parking
2. No – I do not have access to off-street parking
3. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver)
D1b. Do you have access to off-street parking for the plug-in hybrid electric vehicle (PHEV) you drive most often at home?

Please select one option only
SINGLE CODE
1. Yes – I have access to off-street parking
2. No – I do not have access to off-street parking
3. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND D1a=1
D1c. Which of the following best describes your access to off-street parking for the battery electric vehicle (BEV) you drive most often at your home?

Please select one option only
SINGLE CODE
1. On a private driveway or in a garage next to my house
2. On a private driveway or in a garage **not** next to my house
3. In a communal car park with an allocated space (not including carports)
4. In a communal car park with no allocated spaces (not including carports)
5. In a communal carport with an allocated space
6. In a communal carport with no allocated spaces
7. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver) AND D1b=1
D1d. Which of the following best describes your access to off-street parking for the plug-in hybrid electric vehicle (PHEV) you drive most often at your home?

Please select one option only
SINGLE CODE
1. On a private driveway or in a garage next to my house
2. On a private driveway or in a garage **not** next to my house
3. In a communal car park with an allocated space (not including carports)
4. In a communal car park with no allocated spaces (not including carports)
5. In a communal carport with an allocated space
6. In a communal carport with no allocated spaces
7. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND D1a=2
D2a. You mentioned you do not have access to off-street parking for the battery electric vehicle (BEV) you drive most often at your home. Which of these options best describes your access to parking for the battery electric vehicle (BEV) you drive most often at your home?

Please select one option only
SINGLE CODE
1. In front of or near my home, in an allocated space
2. In front of or near my home, in an unallocated space
3. On my street, but not in front of or near my home
4. On a neighbouring street
5. In a public council car park
6. In a private car park
7. Other access to parking (please specify)
8. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver) AND D1b=2

D2b. You mentioned you do not have access to off-street parking for the plug-in hybrid electric vehicle (PHEV) you drive most often at your home. Which of these options best describes your access to parking for the plug-in hybrid electric vehicle (PHEV) you drive most often at your home?

Please select one option only
SINGLE CODE
1. In front of or near my home, in an allocated space
2. In front of or near my home, in an unallocated space
3. On my street, but not in front of or near my home
4. On a neighbouring street
5. In a public council car park
6. In a private car park
7. Other access to parking (please specify)
8. Don't know

ASK IF D2a=5 OR 6 OR D1c=3 OR 4 [PARK AT LEAST ONE CAR IN A CAR PARK]
D3a. You mentioned you park the battery electric vehicle (BEV) you drive most often in a car park, does this car park have a roof that you can park the battery electric vehicle (BEV) under?

Please select one option only
SINGLE CODE
1. Yes – roof always available to park under
2. Yes – roof sometimes available to park under
3. No – no roof to park under
4. Don't know

ASK IF D2b=5 OR 6 OR D1d=3 OR 4 [PARK AT LEAST ONE CAR IN A CAR PARK]
D3b. You mentioned you park the plug-in hybrid electric vehicle (PHEV) you drive most often in a car park, does this car park have a roof that you can park the PHEV under?

Please select one option only
SINGLE CODE
1. Yes – roof always available to park under
2. Yes – roof sometimes available to park under
3. No – no roof to park under
4. Don't know

Section E: Chargepoint access

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
E1a. Which of these statements best describes your access to a charger for a battery electric vehicle (BEV) you drive at home?

If you drive more than one battery electric vehicle (BEV), please think about the one you drive most often.

Please select one option only
SINGLE CODE
1. I have a dedicated electric vehicle charger installed at home
2. I do not have a dedicated electric vehicle charger installed at home, but have an alternative method of charging the battery electric vehicle (BEV) at home (e.g. running an extension cable through my window or letterbox)
3. I have no available method of charging the battery electric vehicle (BEV) at home

ASK IF D_ENGINETYPE=2 (PHEV driver)
E1b. Which of these statements best describes your access to a charger for a plug-in hybrid electric vehicle (PHEV) you drive at home?

If you drive more than one plug-in hybrid electric vehicle (PHEV), please think about the one you drive most often.

Please select one option only
SINGLE CODE
1. I have a dedicated electric vehicle charger installed at home

2. I do not have a dedicated electric vehicle charger installed at home, but have an alternative method of charging the plug-in hybrid electric vehicle (PHEV) at home (e.g. running an extension cable through my window or letterbox)
3. I have no available method of charging the plug-in hybrid electric vehicle (PHEV) at home

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND E1a=2
E1c. Which of these statements best describes how you typically charge the battery electric vehicle (BEV) you drive most often at home?
SINGLE CODE
1. I charge the battery electric vehicle (BEV) off-street (e.g. on a driveway or in a garage)
2. I charge the battery electric vehicle (BEV) on the street

ASK IF D_ENGINETYPE=2 (PHEV driver) AND E1b=2
E1d. Which of these statements best describes how you typically charge the plug-in hybrid electric vehicle (PHEV) you drive most often at home?
SINGLE CODE
1. I charge the plug-in hybrid electric vehicle (PHEV) off-street (e.g. on a driveway or in a garage)
2. I charge the plug-in hybrid electric vehicle (PHEV) on the street

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND E1c=1 OR E1a=1
E2a. Which of these statements best describes the type of charger for your battery electric vehicle (BEV) you drive most often at home?

Please select one option only
SINGLE CODE
1. I have a **smart home charger** – connected to the internet so it can be operated remotely to optimise energy consumption
2. I have a **non-smart home charger** – not connected to the internet so it cannot be operated remotely to optimise energy consumption
3. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver) AND E1d=1 OR E1b=1
E2b. Which of these statements best describes the type of charger for your plug-in hybrid electric vehicle (PHEV) you drive most often at home?

Please select one option only
SINGLE CODE
1. I have a **smart home charger** – connected to the internet so it can be operated remotely to optimise energy consumption
2. I have a **non-smart home charger** – not connected to the internet so it cannot be operated remotely to optimise energy consumption
3. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND E2a=2
E3a. Which of these statements best apply to your non-smart home charger?

Please select one option only
SINGLE CODE
1. I **can** set a specific time period for the battery electric vehicle (BEV) to be charged
2. I **cannot** set a specific time period for the battery electric vehicle (BEV) to be charged
3. Don't know

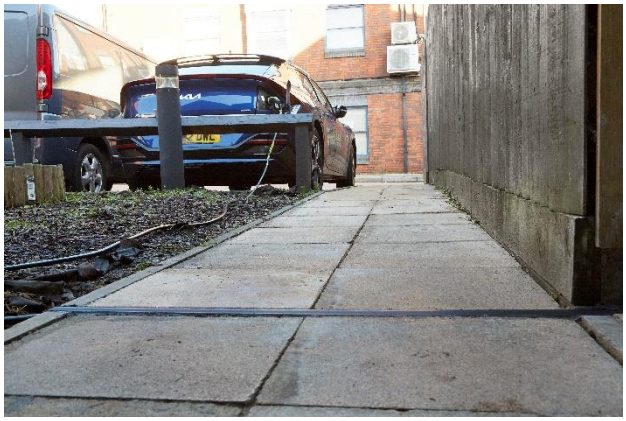
ASK IF D_ENGINETYPE=2 (PHEV driver) AND E2b=2
E3b. Which of these statements best apply to your non-smart home charger?

Please select one option only
SINGLE CODE
1. I **can** set a specific time period for the plug-in hybrid electric vehicle (PHEV) to be charged
2. I **cannot** set a specific time period for the plug-in hybrid electric vehicle (PHEV) to be charged
3. Don't know

ASK IF UKREGION=1-9 [ENG ONLY] AND (E1c=2 OR E1d=2) [HOME CHARGER INSTALLED OR ALTERNATIVE METHOD AND CHARGE BEV/PHEV ON THE STREET]

E4. Cross-pavement charging solution (gully charging) refers to a method of charging a battery electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV) from a home without access to off-street parking. It involves running a charging cable from a home, across a pavement/driveway to charge a vehicle without obstructing the pavement/driveway. The charging cable is often threaded through a protective cover that sits in the "gully" of the pavement.

[INSERT IMAGES – SHOW IMAGES SIDE BY SIDE FOR COMPUTER AND ONE ABOVE THE OTHER FOR MOBILE. CLICK TO INCREASE IMAGE SIZE. IMAGES NOT TOO BIG]



Before today, how much, if anything, would you say you know about cross-pavement charging solutions (gully charging)?
Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. A great deal
2. A fair amount
3. Just a little
4. Heard of, know nothing about
5. Never heard of
6. Don't know [FIX]

ASK IF AWARE OF GULLY CHARGING (E4=1 OR 2 OR 3 OR 4)
E5. Do you have a cross-pavement solution (e.g. gully) installed through your pavement or driveway to allow you to run a concealed extension cable from your home to a car or van?
SINGLE CODE
1. Yes – have a cross-pavement solution
2. No – do not have a cross-pavement solution
3. Don't know

IF HAVE CHARGER INSTALLED IN HOME (E1a=1 OR E1b=1)
E6. When was your home charger installed in your home?

Please select one option only
SINGLE CODE
1. Whilst the house was being built – installed by builders during new build/major refurbishment phase
2. After the house was built - installed by previous owners / tenants
3. After the house was built – installed by me or another member of my household
4. Don't know

IF HAVE CHARGER INSTALLED IN HOME (E1a=1 OR E1b=1)
E7. Does anyone outside your household use your at-home charger for a battery electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV)?

Please select one option only
SINGLE CODE
1. Yes – for a cost
2. Yes – for free
3. No – no one else uses the home charger
4. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND THOSE WHO RELY ON CHARGERS OUTSIDE THEIR HOME (E1a=3)

E8a. You mentioned that you have no available method of charging the battery electric vehicle (BEV) you drive most often at home, what type of chargepoint do you mostly rely on to charge the battery electric vehicle (BEV)?

Please select one option only
SINGLE CODE
RANDOMISE CODES 1-6

1. At work/place of education
2. At a residential on-street charger, including lamp post chargers
3. At a business or organisation's car park (e.g. supermarket, pub, hotel, gym)
4. At a Motorway Service Area
5. At a service area on a major A-road
6. Dedicated EV charging hub
7. Other location

ASK IF D_ENGINETYPE=2 (PHEV driver) AND THOSE WHO RELY ON CHARGERS OUTSIDE THEIR HOME (E1b=3)

E8b. You mentioned that you have no available method of charging the plug-in hybrid electric vehicle (PHEV) you drive most often at home, what type of chargepoint do you mostly rely on to charge the plug-in hybrid electric vehicle (PHEV)?

Please select one option only
SINGLE CODE
RANDOMISE CODES 1-6

1. At work/place of education
2. At a residential on-street charger, including lamp post chargers
3. At a business or organisation's car park (e.g. supermarket, pub, hotel, gym)
4. At a Motorway Service Area
5. At a service area on a major A-road
6. Dedicated EV charging hub
7. Other location

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND THOSE WHO RELY ON CHARGERS OUTSIDE THEIR HOME (E1a=3)

E9a. You mentioned that you have no available method of charging the battery electric vehicle (BEV) you drive most often at home, are the chargepoints you mostly rely on to charge the battery electric vehicle (BEV) more often…?

Please select one option only
SINGLE CODE

1. A lower power public charger (less than 22kW)
2. A standard power public charger (22kW to 49kW)
3. A rapid power public charger (50kW and above)
4. I use low, standard and rapid power equally
5. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver) AND THOSE WHO RELY ON CHARGERS OUTSIDE THEIR HOME (E1b=3)

E9b. You mentioned that you have no available method of charging the plug-in hybrid electric vehicle (PHEV) you drive most often at home, are the chargepoints you mostly rely on to charge the plug-in hybrid electric vehicle (PHEV) more often…?

Please select one option only
SINGLE CODE

1. A lower power public charger (less than 22kW)
2. A standard power public charger (22kW to 49kW)
3. A rapid power public charger (50kW and above)
4. I use low, standard and rapid power equally
5. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND THOSE WHO RELY ON CHARGERS OUTSIDE THEIR HOME (E1a=3)

E10a. How far away is the public chargepoint you use to charge the battery electric vehicle (BEV) you drive most often from your usual overnight parking location?

If you use multiple locations to charge the car or van overnight, please think about the location you use most often.

Please select one option only

SINGLE CODE

1. Less than 100 metres
2. 100 metres or more but less than 200 metres
3. 200 metres or more but less than 300 metres
4. 300 metres or more but less than 400 metres
5. 400 metres or more but less than 500 metres
6. 500 metres or more but less than 1 kilometre
7. 1 kilometre or more (0.6 miles or more)
8. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver) AND THOSE WHO RELY ON CHARGERS OUTSIDE THEIR HOME (E1b=3)

E10b. How far away is the public chargepoint you use to charge the plug-in hybrid electric vehicle (PHEV) you drive most often from your usual overnight parking location?

If you use multiple locations to charge the car or van overnight, please think about the location you use most often.

Please select one option only

SINGLE CODE

1. Less than 100 metres
2. 100m or more but less than 200 metres
3. 200m or more but less than 300 metres
4. 300m or more but less than 400 metres
5. 400m or more but less than 500 metres
6. 500m or more but less than 1 kilometre
7. 1 kilometre or more (0.6 miles or more)
8. Don't know

ASK THOSE WHO HAVE A HOME CHARGING METHOD AT E1 (E1a or E1b=1 OR 2)

E11a. Which of the following energy tariffs do you have at home?

Please select all that apply.

MULTI CODE 1-2

1. Non-specific EV tariff (e.g. variable or fixed rate tariff, capped rate tariff)
2. Specific EV tariff (e.g. EV tariff (time of use), smart EV tariff)
3. I do not have any energy tariffs at home
4. Don't know

ASK IF E11a=2

E11b. Which of the following specific EV energy tariffs do you have at home? If you have more than one tariff, or one that covers more than one option below, select all that apply.

MULTI CODE 1-4, RANDOMISE CODES 1-3

1. EV tariff (time of use) - offering off-peak charging periods
2. Smart EV tariff – with automated control from energy supplier to schedule charging
3. Vehicle-to-grid tariff – offering rewards for transferring energy from battery back to the grid
4. Other specific EV tariff (specify) [FIX]
5. Don't know [FIX] [EXCLUSIVE]

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND THOSE WHO HAVE A HOME CHARGING METHOD AT E1 (E1a or E1b =1 OR 2)

E12a. Thinking about when you typically charge the battery electric vehicle (BEV) you drive most often at home, how much does it cost per kilowatt hour (kWh)?

If you are not sure what the cost of charging your vehicle at home is, please select 'don't know' at the bottom of the list.

Please select one option only
SINGLE CODE
1. 0-4 pence per kilowatt hour
2. 5-9 pence per kilowatt hour
3. 10-14 pence per kilowatt hour
4. 15-19 pence per kilowatt hour
5. 20-24 pence per kilowatt hour
6. 25-29 pence per kilowatt hour
7. 30-34 pence per kilowatt hour
8. 35 pence per kilowatt hour or more
9. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver) AND THOSE WHO HAVE A HOME CHARGING METHOD AT E1 (E1a or E1b =1 OR 2)
E12b. Thinking about when you typically charge the plug-in hybrid electric vehicle (PHEV) you drive most often at home, how much does it cost per kilowatt hour (kWh)?

If you are not sure what the cost of charging your vehicle at home is, please select 'don't know' at the bottom of the list.

Please select one option only
SINGLE CODE
1. 0-4 pence per kilowatt hour
2. 5-9 pence per kilowatt hour
3. 10-14 pence per kilowatt hour
4. 15-19 pence per kilowatt hour
5. 20-24 pence per kilowatt hour
6. 25-29 pence per kilowatt hour
7. 30-34 pence per kilowatt hour
8. 35 pence per kilowatt hour or more
9. Don't know

ASK ALL
E13. Have you or anyone else in your household ever received any of the following government grants?

All battery electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV) grants are processed through car dealerships. Home charger grants are processed through electric vehicle (EV) chargepoint installers.

Please select all that apply.
MULTI CODE 1-2
1. Yes – received a government grant toward the purchase and installation costs of the home charger
2. Yes – received a government grant towards the purchase of the household battery electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV)
3. No – have not received any government grants for the home charging device or the battery electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV) [EXCLUSIVE]
4. Don't know [EXCLUSIVE]

ASK ALL
E14. Vehicle-to-grid technologies will allow EVs to export electricity back from their car battery to the grid when it is most needed. This could make the power system cleaner and cheaper for everybody by reducing the amount of electricity generation needed at peak times and network investment needed.

Before today, how much, if anything, would you say you know about "vehicle-to-grid" technology, sometimes shortened to "V2G"?

Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. A great deal
2. A fair amount
3. Just a little
4. Heard of, know nothing about
5. Never heard of

6. Don't know [FIX]

ASK IF AWARE OF V2G [E14=1-3]
E15. To what extent would you be willing or unwilling to use "vehicle-to-grid" technology in the UK?

Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. Very willing
2. Fairly willing
3. Neither willing nor unwilling
4. Fairly unwilling
5. Very unwilling
6. Don't know [FIX]

Section F: Charging Behaviours

SHOW IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
F_TEXTa. This section is about how you charge the battery electric vehicle (BEV) that you drive most often, both at home and when you are out and about.

SHOW IF D_ENGINETYPE=2 (PHEV driver)
F_TEXTb. This section is about how you charge the plug-in hybrid electric vehicle (PHEV) that you drive most often, both at home and when you are out and about.

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver) AND THOSE WHO HAVE A HOME CHARGING METHOD AT E1 (E1a or E1b =1 OR 2)
F1a. How often do you charge the battery electric vehicle (BEV) you drive most often at home overnight and during the day? Please include any charges you make, even if you do not fully charge the battery electric vehicle (BEV) each time.
SINGLE CODE PER ROW
RANDOMISE STATEMENTS 1-2
1. Overnight
2. During the day

ANSWER OPTIONS
1. More than once a day [SHOW IF STATEMENT 2] More than once a night [SHOW IF STATEMENT 1]
2. Once every day [SHOW IF STATEMENT 2] Once every night [SHOW IF STATEMENT 1]
3. 5-6 times per week
4. 3-4 times per week
5. 1-2 times per week
6. 1-2 times per month
7. 1-2 times per year
8. Less than once a year
9. Never
10. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver) THOSE WHO HAVE A HOME CHARGING METHOD AT E1b (E1b =1 OR 2)
F1b. How often do you charge the plug-in hybrid electric vehicle (PHEV) you drive most often at home overnight and during the day? Please include any charges you make, even if you do not fully charge the plug-in hybrid electric vehicle (PHEV) each time.
SINGLE CODE PER STATEMENT
RANDOMISE STATEMENTS 1-2
1. Overnight
2. During the day

ANSWER OPTIONS
1. More than once a day [SHOW IF STATEMENT 2] More than once a night [SHOW IF STATEMENT 1]
2. Once every day [SHOW IF STATEMENT 2] Once every night [SHOW IF STATEMENT 1]
3. 5-6 times per week
4. 3-4 times per week

5. 1-2 times per week
6. 1-2 times per month
7. 1-2 times per year
8. Less than once a year
9. Never
10. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)

F2a. How often do you charge the battery electric vehicle (BEV) you drive most often at the following types of chargepoint? Please include any charges you make, even if you do not fully charge the battery electric vehicle (BEV) each time.

SINGLE CODE PER STATEMENT
PROGRESSIVE GRID
RANDOMISE STATEMENTS 1-6

1. At work/place of education
2. At a residential on-street charger, including lamp post chargers
3. At a business or organisation's car park (e.g. supermarket, pub, hotel, gym)
4. At a Motorway Service Area
5. At a service area on a major A-road
6. Dedicated EV charging hub
7. Other location

ANSWER OPTIONS
1. More than once per day
2. Everyday
3. 5-6 times per week
4. 3-4 times per week
5. 1-2 times per week
6. 1-2 times per month
7. 1-2 times per year
8. Less than once a year
9. Never / not applicable

ASK IF D_ENGINETYPE=2 (PHEV driver)

F2b. How often do you charge the plug-in hybrid electric vehicle (PHEV) you drive most often at the following types of chargepoint? Please include any charges you make, even if you do not fully charge the plug-in hybrid electric vehicle (PHEV) each time.

SINGLE CODE PER STATEMENT
PROGRESSIVE GRID
RANDOMISE STATEMENTS 1-6

1. At work/place of education
2. At a residential on-street charger, including lamp post chargers
3. At a business or organisation's car park (e.g. supermarket, pub, hotel, gym)
4. At a Motorway Service Area
5. At a service area on a major A-road
6. Dedicated EV charging hub
7. Other location

ANSWER OPTIONS
1. More than once per day
2. Everyday
3. 5-6 times per week
4. 3-4 times per week
5. 1-2 times per week
6. 1-2 times per month
7. 1-2 times per year
8. Less than once a year
9. Never / not applicable

ASK IF CODE 7 AT F2a_7=1-7

F3a. You mentioned that you charge the battery electric vehicle (BEV) you drive most often at least 1-2 times per year at another location, please can you tell us where this is.

OPEN ENDED

[TEXT BOX]

1. Don't know

ASK IF CODE 7 AT F2b_7=1-7
F3b. You mentioned that you charge the plug-in hybrid electric vehicle (PHEV) you drive most often at least 1-2 times per year at another location, please can you tell us where this is.
OPEN ENDED
[TEXT BOX]
1. Don't know

[NEW SCREEN]
SHOW ALL
F_TEXTc. Next, we would like to ask you some questions about journeys in the UK

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
F4a. Imagine you were driving a battery electric vehicle (BEV) for a journey in the UK…

…at what battery percentage (%) would you typically stop to charge the battery electric vehicle (BEV)?

Please select one option only
SINGLE CODE
1. 0%-4%
2. 5%-9%
3. 10%-14%
4. 15%-19%
5. 20%-24%
6. 25%-29%
7. 30%-39%
8. 40%-49%
9. 50%-59%
10. 60%-69%
11. 70% or higher
998. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
F4b. At what battery percentage (%) would you finish charging the battery electric vehicle (BEV) on route?

Please select one option only
SINGLE CODE
1. 0%-4%
2. 5%-9%
3. 10%-14%
4. 15%-19%
5. 20%-24%
6. 25%-29%
7. 30%-39%
8. 40%-49%
9. 50%-59%
10. 60%-69%
11. 70% or higher
999. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver)
F4c. Imagine you were driving a plug-in hybrid electric vehicle (PHEV) for a journey in the UK…

…at what battery percentage (%) would you typically stop to charge the plug-in hybrid electric vehicle (PHEV)?

Please select one option only
SINGLE CODE
1. 0%-4%
2. 5%-9%
3. 10%-14%
4. 15%-19%
5. 20%-24%

6. 25%-29%
7. 30%-39%
8. 40%-49%
9. 50%-59%
10. 60%-69%
11. 70% or higher
12. I wouldn't charge the PHEV on a journey, I would rely on my petrol/diesel engine to complete the journey

999. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver) EXCLUDING F4c=12

F4d. At what battery percentage (%) would you finish charging the plug-in hybrid electric vehicle (PHEV) on route?

Please select one option only

SINGLE CODE

1. 0%-4%
2. 5%-9%
3. 10%-14%
4. 15%-19%
5. 20%-24%
6. 25%-29%
7. 30%-39%
8. 40%-49%
9. 50%-59%
10. 60%-69%
11. 70% or higher

999. Don't know

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)

F5a. Thinking about the last 12 months, when driving journeys in a battery electric vehicle (BEV), how often have you used a third-party app on a mobile phone or integrated system in the battery electric vehicle (BEV) to help plan when and where you will stop and charge?

Third-party apps or integrated systems can include platforms such as Google Maps, Apple Maps, Android Car Play, Apple Car Play, Zapmap, TomTom, Waze.

Please select one option only

SINGLE CODE

REVERSE SCALE FOR HALF RESPONDENTS

1. Always
2. Sometimes
3. Hardly ever
4. Never
5. Don't know [FIX]
6. Not applicable [FIX]

ASK IF D_ENGINETYPE=2 (PHEV driver)

F5b. Thinking about the last 12 months, when driving journeys in a plug-in hybrid electric vehicle (PHEV), how often have you used a third-party app on a mobile phone or integrated system in the plug-in hybrid electric vehicle (PHEV), to help plan when and where you will stop and charge?

Third-party apps or integrated systems can include platforms such as Google Maps, Apple Maps, Android Car Play, Apple Car Play, Zapmap, TomTom, Waze.

Please select one option only

SINGLE CODE

REVERSE SCALE FOR HALF RESPONDENTS

1. Always
2. Sometimes
3. Hardly ever
4. Never
5. Don't know [FIX]
6. Not applicable [FIX]

Section G: Public Charging

SHOW ALL
G_TEXT. Now we will ask you some questions about your overall satisfaction with public charging points, both in your local area and across the UK.

ASK ALL
G1. Overall, how satisfied or dissatisfied are you with the availability of public chargepoints in your local area?

When answering please think of your local area as the area that is within 15-20 minutes' walk or 5 minutes' drive from your home.

Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. Very satisfied
2. Somewhat satisfied
3. Neither satisfied nor dissatisfied
4. Somewhat dissatisfied
5. Very dissatisfied
6. Don't know [FIX]

SHOW IF ENG RESPONDENT [UKREGION1=1-9]
SRN_DEFINITION. We will now ask you a few questions about your experiences when charging on England's motorways and major A-roads, known as the Strategic Road Network (SRN).

SRN in England comprises two components - motorways and major A-roads - that connect major towns and cities to provide the capacity and connectivity to support national and local economic growth. A map of the SRN is shown below, with motorways in blue and major A-roads in red, and you can view a more detailed map here.

[INSERT IMAGE]

ASK IF UKREGION1=1-9 (ENGLAND)
G2. Overall, how satisfied or dissatisfied are you with the availability of public chargepoints at Motorway Service Areas in England?

Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. Very satisfied
2. Somewhat satisfied
3. Neither satisfied nor dissatisfied

4. Somewhat dissatisfied
5. Very dissatisfied
6. Don't know [FIX]

ASK IF UKREGION1=1-9 (ENGLAND)
G3. How satisfied or dissatisfied are you with the availability of public chargepoints at major-A road Service Areas in England?

Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. Very satisfied
2. Somewhat satisfied
3. Neither satisfied nor dissatisfied
4. Somewhat dissatisfied
5. Very dissatisfied
6. Don't know [FIX]

ASK ALL
G4. We are interested in your perceptions about using and charging an electric vehicle at public chargepoints.

It does not matter if you have never used an electric vehicle or public chargepoint, it is your perceptions we are interested in.

How much do you agree or disagree with the following statements:
SINGLE CODE PER STATEMENT
RANDOMISE STATEMENTS 1-6
1. Most public chargepoints for electric vehicles are not accessible to drivers with disabilities
2. Most public chargepoints are easy to locate
3. Too many chargepoints are out of service or difficult to use
4. I feel confident taking long journeys by electric vehicle
5. The price of charge at public chargepoints is unclear and confusing
6. There are enough public chargepoints for electric vehicles to meet demand

REVERSE SCALE FOR HALF RESPONDENTS
1. Strongly agree
2. Tend to agree
3. Neither agree or disagree
4. Tend to disagree
5. Strongly disagree
6. Don't know [FIX]
7. Not applicable [FIX]

ASK THOSE WHO USE PUBLIC CHARGEPOINTS AT LEAST 1-2 TIME PER YEAR [IF F2=STATEMENTS 2,3,4,5 CODED 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7]
G5. How safe or unsafe do you feel when using public chargepoints?

Please select one option only
SINGLE CODE PER STATEMENT
REVERSE SCALE FOR HALF RESPONDENTS
1. Very safe
2. Fairly safe
3. Neither safe nor unsafe
4. Fairly unsafe
5. Very unsafe
6. Don't know [FIX]

ASK IF G5=4 OR 5 (UNSAFE)
G6. Why did you give that answer? Please provide details of what makes you feel unsafe when using public chargers, including charging location / time of use.

Please select all that apply
MULTI CODE 1-7

RANDOMISE CODES 1-6
1. Public chargers in quiet/isolated areas
2. Public chargers in poorly lit locations
3. Concern over damage to the car (including car theft)
4. Public chargers located in busy areas with other people around
5. Concern about how long it takes to charge the car
6. Concern about leaving the car unattended
7. Other (please specify) [FIX]
8. Don't know [FIX] [EXCLUSIVE]

ASK THOSE WHO USE PUBLIC CHARGEPOINTS AT LEAST 1-2 TIME PER YEAR [IF F2=STATEMENTS 2,3,4,5 CODED 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7]
G7. Please select up to three options that you feel would most improve the public charging network.

Please select up to three options
MULTI CODE UP TO 3
RANDOMISE ANSWERS 1-13
1. More chargepoints near my home
2. More chargepoints at my workplace/place of education
3. More chargepoints at motorway service areas
4. More chargepoints at other destinations
5. Quicker charging times
6. Cheaper charging prices
7. Changes to the method by which payments are made
8. Improved chargepoint reliability
9. Improvements to the way chargepoints can be located
10. Improved access to chargepoints for disabled drivers
11. Improved safety at chargepoints
12. Improved information about chargepoints before the driver gets there (e.g. location, availability, etc.)
13. Improved ability to report any issues with the public chargepoint (e.g. a free helpline)
14. Other (please specify) [FIX]
15. No improvements are required [EXCLUSIVE] [FIX]
16. Don't know [EXCLUSIVE] [FIX]

ASK THOSE WHO USE PUBLIC CHARGEPOINTS AT LEAST 1-2 TIME PER YEAR [IF F2=STATEMENTS 2,3,4,5 CODED 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7]
G8. What kind(s) of additional chargepoints, if any, would you <u>most</u> like to see at…
SINGLE CODE PER STATEMENT
RANDOMISE STATEMENTS
1. Work/place of education
2. A residential on-street charger, including lamp post chargers
3. A business or organisation's car park (e.g. supermarket, pub, hotel, gym)
4. A Motorway Service Area
5. A service area on a major A-road
6. A dedicated EV charging hub

ANSWER OPTIONS
1. More lower power chargers (up to 22kW)
2. More standard power chargers (22kW-49kW)
3. More rapid power chargers (50kW-149kW)
4. More ultra rapid power chargers (150+kW)
5. No additional chargers needed
6. Don't know
7. Not applicable

SHOW IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
G9a_TEXT. We would now like to understand your experiences, if any, with raising complaints related to a battery electric vehicle (BEV), or its charging infrastructure.

SHOW IF D_ENGINETYPE=2 (PHEV driver)
G9b_TEXT. We would now like to understand your experiences, if any, with raising complaints related to a plug-in hybrid electric vehicle (PHEV) or its charging infrastructure.

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)

G9a. Have you ever contacted a consumer advisory service, made a formal complaint or attempted to make one regarding battery electric vehicles (BEVs)?

Please select one option only
SINGLE CODE
1. Yes – contacted a consumer advisory service, made a formal complaint or attempted to make one
2. No – never contacted a consumer advisory service, made a formal complaint or attempted to make one
3. Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver)
G9b. Have you ever contacted a consumer advisory service, made a formal complaint or attempted to make one regarding plug-in hybrid electric vehicles (PHEVs)?

Please select one option only
SINGLE CODE
1. Yes – contacted a consumer advisory service, made a formal complaint or attempted to make one
2. No – never contacted a consumer advisory service, made a formal complaint or attempted to make one
3. Don't know

IF G9a=1
G10a. Which of the following issues best describes the reason you contacted a consumer advisory service, made a formal complaint or attempted to make one regarding battery electric vehicles (BEVs)?

Please select all that apply
MULTI CODE
RANDOMISE STATEMENTS 1-6
1. Purchase of the battery electric vehicle (BEV)
2. Leasing of the battery electric vehicle (BEV)
3. Quality / performance of the battery electric vehicle (BEV)
4. Manufacturer's warranty of the battery electric vehicle (BEV)
5. Servicing / repairs of the battery electric vehicle (BEV)
6. Charging of the battery electric vehicle (BEV) (including public charging and home charging)
7. Other issue (please specify) [FIX]
8. Don't know [FIX] [EXCLUSIVE]

IF G9b=1
G10b. Which one of the following issues best describes the reason you contacted a consumer advisory service, made a formal complaint or attempted to make one regarding plug-in hybrid electric vehicles (PHEVs)?

Please select all that apply
MULTI CODE 1-7
RANDOMISE STATEMENTS 1-6
1. Purchase of the plug-in hybrid electric vehicle (PHEV)
2. Leasing of the plug-in hybrid electric vehicle (PHEV)
3. Quality / performance of the plug-in hybrid electric vehicle (PHEV)
4. Manufacturer's warranty of the plug-in hybrid electric vehicle (PHEV)
5. Servicing / repairs of the plug-in hybrid electric vehicle (PHEV)
6. Charging of the plug-in hybrid electric vehicle (PHEV) (including public charging and home charging)
7. Other issue (please specify) [FIX]
8. Don't know [FIX] [EXCLUSIVE]

IF G10a=6
G11a. What best describes the issue with charging the battery electric vehicle (BEV)?

Please select all that apply
MULTI CODE 1-9
RANDOMISE STATEMENTS 1-8
1. Use of public chargepoints
2. Access to public chargepoints
3. Public chargepoint not working even though it said it was working on an app
4. Installation of home charger
5. Installation of workplace charger
6. Home / public chargepoint functionality

7. Purchase of a bundled service (e.g. home charger and access to public chargers)
8. Access to a specific EV tariff
9. Other issue (please specify) [FIX]
10. Don't know [FIX] [EXCLUSIVE]

IF G10b=6
G11b. What best describes the issue with charging the plug-in hybrid electric vehicle (PHEV)?

Please select all that apply
MULTI CODE 1-9
RANDOMISE STATEMENTS 1-8
1. Use of public chargepoints
2. Access to public chargepoints
3. Public chargepoint not working even though it said it was working on an app
4. Installation of home charger
5. Installation of workplace charger
6. Home / public chargepoint functionality
7. Purchase of a bundled service (e.g. home charger and access to public chargers)
8. Access to a specific EV tariff
9. Other issue (please specify) [FIX]
10. Don't know [FIX] [EXCLUSIVE]

Section H: Expectations and Experiences with BEV/PHEVs

SHOW IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
H_TEXTa. This section will ask about your charging habits and experiences with the battery range of the battery electric vehicle (BEV) you drive most often.

SHOW IF D_ENGINETYPE=2 (PHEV driver)
H_TEXTb. This section will ask about charging habits and experiences with the battery range of the plug-in hybrid electric vehicle (PHEV) you drive most often.

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
H1a. Do you charge the battery electric vehicle (BEV) you drive most often more or less frequently than you had expected to before buying it?

Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. A lot more frequently
2. Slightly more frequently
3. About the same
4. Slightly less frequently
5. A lot less frequently
6. Don't know [FIX]

ASK IF D_ENGINETYPE=2 (PHEV driver)
H1b. Do you charge the plug-in hybrid electric vehicle (PHEV) you drive most often more or less frequently than you had expected to before buying it?

Please select one option only
SINGLE CODE
REVERSE SCALE FOR HALF RESPONDENTS
1. A lot more frequently
2. Slightly more frequently
3. About the same
4. Slightly less frequently
5. A lot less frequently
6. Don't know [FIX]

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
H2a. In the past three months, what is the typical mile range you have experienced when driving the battery electric vehicle (BEV) you drive most often?

Please select one option only
SINGLE CODE
1. Up to 50 miles (Up to 81 kilometres)
2. 51-100 miles (82-161 kilometres)
3. 101-150 miles (162-242 kilometres)
4. 151-200 miles (243-322 kilometres)
5. 201-250 miles (323-402 kilometres)
6. 251-300 miles (403-483 kilometres)
7. 301-350 miles (484-563 kilometres)
8. 351-400 miles (564-644 kilometres)
9. Over 400 miles (Over 644 kilometres)
10. Don't know
11. Prefer not to say

ASK IF D_ENGINETYPE=2 (PHEV driver)
H2b. In the past three months, what is the typical mile range you have experienced using the electric battery when driving the plug-in hybrid vehicle (PHEV) you drive most often?

Please select one option only
SINGLE CODE
1. Up to 10 miles (Up to 16 kilometres)
2. 11-20 miles (17-32 kilometres)
3. 21-30 miles (33-48 kilometres)
4. 31-40 miles (49-64 kilometres)
5. 41-50 miles (65-80 kilometres)
6. Over 50 miles (Over 80 kilometres)
7. Don't know
8. Prefer not to say

ASK IF D_ENGINETYPE=1 OR 3 (BEV driver or BEV and PHEV driver)
H3a. Thinking about the battery range of the battery electric vehicle (BEV) you drive most often, when you first got it compared to now, which of the following best describes your experience? Please exclude any temporary reductions due to weather or other temporary factors such as air conditioning.

Please select one option only
SINGLE CODE
1.The vehicle's battery range has decreased significantly (e.g., more than 10% since I got it)
2.The vehicle's battery range has decreased somewhat (e.g., less than 10% since I got it)
3.The vehicle's battery range has stayed about the same
4.Don't know

ASK IF D_ENGINETYPE=2 (PHEV driver)
H3b. Thinking about the battery range of the plug-in hybrid electric vehicle (PHEV) you drive most often, when you first got it compared to now, which of the following best describes your experience? Please exclude any temporary reductions due to weather or other temporary factors such as air conditioning.

Please select one option only
SINGLE CODE
1.The vehicle's battery range has decreased significantly (e.g., more than 10% since I got it)
2.The vehicle's battery range has decreased somewhat (e.g., less than 10% since I got it)
3.The vehicle's battery range has stayed about the same
4.Don't know

Section I: Demographics

[NEW SCREEN]
ASK ALL
I_TEXT. This final section will ask a few questions about you.

ASK ALL
HEALTHCONSENT. The next questions are about your health. A "Prefer not to answer" option is available for you to select, at your discretion.

Participation is voluntary, and your responses are used for research purposes only, combined with the answers from all other participants. Answers are confidential and will be reported as aggregated results only. The data will be held for no longer than 12 months.

Do you accept the collection of information about your health?
SINGLE CODE
1. Yes, I accept
2. No, I don't accept

ASK IF HEALTHCONSENT=1
I1. Do you have any physical or mental health conditions or illnesses lasting or expected to last for 12 months or more?

Please select one option only
SINGLE CODE
1. Yes
2. No
3. Prefer not to say

ASL IF I1=1
I2. Do any of these conditions or illnesses affect you in any of the following areas?

Please select all that apply
MULTI CODE 1-10
RANDOMISE 1-9
1. Vision (for example blindness or partial sight)
2. Hearing (for example deafness or partial hearing)
3. Mobility (for example walking short distances or climbing stairs)
4. Dexterity (for example lifting and carrying objects, using a keyboard)
5. Learning or understanding or concentrating
6. Memory
7. Mental health
8. Stamina or breathing or fatigue
9. Socially or behaviourally (for example associated with autism spectrum disorder (ASD) which includes Asperger's, or attention deficit hyperactivity disorder (ADHD)
10. Other (please specify)
11. None of the above
12. Prefer not to say

ASK IF I1=1

I3. Does your condition or related illnesses impact your ability to personally use public chargepoints?

Please select one option only

SINGLE CODE

1. Yes, it makes it more difficult
2. Yes, it makes it easier
3. No, it doesn't impact my ability to use public charging points
4. I have not tried to use a public charging point since having this condition/illness
5. Don't know
6. Prefer not to say

ASK IF I3=1

I4. You mentioned that your condition or related illness makes it more difficult for you to use public chargepoints. Thinking about your experiences with public chargepoints, how easy or difficult would you say it is to…

Please select one option only

PROGRESSIVE GRID, SINGLE CODE PER STATEMENT

STATEMENTS - RANDOMISE

1. **…find** a public chargepoint you can use
2. **…use** a public chargepoint you can find

SCALE - FORWARD/REVERSE 1-5

1. Very easy
2. Fairly easy
3. Neither easy nor difficult
4. Fairly difficult
5. Very difficult
6. Do not require an accessible chargepoint
7. Don't know
8. Prefer not to say

ASK ALL

I6. Which of these applies to you?

Please select one option only

SINGLE CODE

1. Have paid job – Full time (30+ hours per week)
2. Have paid job – Part time (8-29 hours per week)
3. Have paid job – Part time (Under 8 hours per week)
4. Not working – Looking after the home/unpaid family carer
5. Self-employed (full time)
6. Self-employed (part time)
7. Full time student
8. Still at school
9. Unemployed and seeking work
10. Retired
11. Not in paid work for other reason
12. Not in paid work because of long term illness or disability
13. Don't know
14. Prefer not to say

ASK ALL

I9. Which of the following best describes the type of building you currently live in?

Please select one option only

SINGLE CODE

1. Detached house
2. Semi-detached house
3. Terrace house
4. Converted flat (i.e. a house that has been converted into flats)
5. Maisonette (i.e. a flat across two floors)

6. Flat in a small block of flats (less than 3 floors)
7. Flat in a tower block / high-rise complex (3+ floors)
8. Listed building (i.e. conservation area)
9. Other (please specify)

ASK ALL
I10. When was the building you currently live in built?

Please select one option only
SINGLE CODE
1. From June 2022 onwards
2. Before June 2022
3. Don't know

ASK ALL
I11. Which of the following best describes the street you live on?

Please select one option only
SINGLE CODE
1. Mostly terraced houses
2. Mostly detached or semi-detached houses
3. Mostly flats (including converted, split level and studio flats)
4. Other (please specify)

ASK ALL
I12. Is the house or flat in which you live…?

Please select one option only
SINGLE CODE
1. Owned outright – without mortgage
2. Owned with a mortgage or loan
3. Rented from the council
4. Rented from a housing association
5. Rented from someone else
6. Rent free
7. Other (please specify)
8. Prefer not to say

ASK IF I12 = 1 OR 2 (OWN)
I13. Is the house or flat that you own…?

Please select one option only
SINGLE CODE
1. Leasehold
2. Freehold **[ONLY SHOW IF ENGLAND OR WALES OR IRELAND RESIDENT]**
3. Heritable **[ONLY SHOW IF SCOTLAND RESIDENT]**
4. Don't know

Appendix E: Travel and charging diary questionnaire

Introductory instructions for diary – BEV respondents

Here is what to do

Day one: On the first day you complete this diary, we will start off with some questions about you and the battery electric vehicle (BEV) you drive most often. After completing these, you will be able to make your first diary entry (each entry will take about 2-3 mins).

Diary entries: Please fill out the diary **at least once a day**, even if you don't drive or charge the battery electric vehicle (BEV) that day. Just choose the option "I did not drive or charge my electric vehicle today." You may need to complete the diary more than once a day for example if you make multiple journeys and/or charge your vehicle. Further information about how to make entries for a charge and a journey is provided below.

Charging entries: Each time you charge the battery electric vehicle (BEV), **fill out a charging entry**. If possible, do this **in real time** using your smartphone. This means:

- When you plug in the battery electric vehicle (BEV), open the diary and start a new charging entry. Enter the time and battery percentage.
- When you unplug your vehicle, go back to that same entry and enter the time and battery percentage again and complete any other questions asked about this charge.

Journey entries: Each time you drive the battery electric vehicle (BEV), **fill out a journey entry**. This can be done at the end of the journey but you will be asked about the distance so please keep this in mind when you record a journey.

Journeys with charging: If you charge the battery electric vehicle (BEV) during or after a journey, **fill out both a charging entry and a journey entry**.

What if someone else drives my vehicle?
You have said that you are likely going to be the sole driver of the battery electric vehicle (BEV) that you drive most often over this two-week period. If someone else does happen to drive or charge this battery electric vehicle (BEV) in these two weeks, please ensure you record when asked in the diary.

How long will this take?
Each entry should only take 2-3 minutes.

Thanks for helping us understand how people use battery electric vehicles (BEVs)!

Day 1: Context questions_(only asked once, on day 1)

ASK ALL BEV SAMPLE
CX1a. Which of the following best describes your gender?

Please select one option only
SINGLE CODE
1. Man
2. Woman
3. Non-binary
4. My gender is not listed
5. I would prefer not to say

ASK ALL BEV SAMPLE
CX2a. What is your age?

Please select one option only
SINGLE CODE
1. Under 17 [SCREEN OUT]
2. 17-24
3. 25-34
4. 35-44
5. 45-54
6. 55-59
7. 60-65

8. Prefer not to say

ASK ALL BEV SAMPLE
CX3a. What make and model is the battery electric vehicle (BEV) you drive most often?
SINGLE CODE
FOR MAKE: USE TYPE AND SEARCH FUNCTIONALITY. ALLOW OPEN END TEXT TO BE ENTERED HERE IF MAKE OF CAR/VAN NOT ON THE LIST
FOR MODEL: SINGLE CODE – SHOW ALL MODELS APPLICABLE IN USUAL ANSWER OPTION LIST

DISPLAY BESIDE "Make drop down": Please type in the name of the make of your battery electric vehicle (BEV) (e.g. Ford, Honda, etc.) and select the make from the available list. If the make of your battery electric vehicle (BEV) does not appear on the list, please just type the make and then enter model in the "Other model" text box below.
DISPLAY ABOVE Model drop down: Please select the model from the drop-down list shown. If your model is not on the list please type this in to the "Other model" text box.
SINGLE CODE
INSERT BEV MAKE LIST
1. Other model (please specify)
2. Don't know model [SCREEN OUT]

ASK ALL BEV SAMPLE
CX5a. You told us in the survey you completed earlier in November, about the battery electric vehicle (BEV) you drive most often, that you expect to be the only person who drives or charges this vehicle throughout this 14-day diary. Is this still correct?

Please select one option only
SINGLE CODE
1. Yes – I plan to be the only person who drives or charges the battery electric vehicle (BEV) I drive most often
2. No – someone else will drive or charge the battery electric vehicle (BEV) [SCREEN OUT]
3. Don't know [SCREEN OUT]

ASK ALL BEV SAMPLE
CX6a. What is the battery size of the battery electric vehicle (BEV) you drive most often?
If you are not sure what the battery size is, please select 'don't know' at the bottom of the list.

Select one option only
SINGLE CODE
1. Less than 30kWh
2. 30-50kWh
3. 51-60kWh
4. 61-70kWh
5. 71-80kWh
6. 81-90kWh
7. 91-100kWh
8. More than 100kWh
9. Don't know

ASK ALL BEV SAMPLE
CX7a. Which of these statements best describes your access to a charger for the battery electric vehicle (BEV) at home?

Please select one option only
SINGLE CODE
1. I have a dedicated electric vehicle charger installed at home
2. I do not have a dedicated electric vehicle charger installed at home, but have an alternative method of charging the battery electric vehicle (BEV) at home (e.g. running an extension cable through my window or letterbox)
3. I have no available method of charging the battery electric vehicle (BEV) at home

ASK ALL BEV SAMPLE
TEXT_Ca. Thank you for completing these initial questions to help us understand a bit more about the battery electric vehicle (BEV) you drive most often.

Throughout this two-week diary we will be asking you about the battery electric vehicle (BEV) that you have told us is the battery electric vehicle (BEV) you drive most often in the survey you completed earlier in November.

Please remember to come back to the diary at least once a day to record every time you charge or drive the battery electric vehicle (BEV).

Please click 'continue' to enter the first screen of the diary where you will be able to select the type of entry you want to make. Once you have completed each entry, you will always be taken back to this first screen where you will be able to select your next diary entry type.

INSERT CONTINUE BUTTON
SINGLE CODE – CONTINUE BUTTON

ASK ALL BEV SAMPLE
Landing. ***Please complete a diary entry for each day.***

The days of your diary that are available for you to complete now are shown in the grid below. You can complete any diary day in the past, at any time before the end of the survey period. Please select the survey date you wish to complete.

1. 1st day (21 November)
2. 2nd day (22 November)
3. 3rd day (23 November)
4. 4th day (24 November)
5. 5th day (25 November)
6. 6th day (26 November)
7. 7th day (27 November)
8. 8th day (28 November)
9. 9th day (29 November)
10. 10th day (30 November)
11. 11th day (1 December)
12. 12th day (2 December)
13. 13th day (3 December)
14. 14th day (4 December)

Click below if you want to opt out from the diary
1. Opt out

ASK ALL BEV SAMPLE
LAND2A. Welcome to [IF DAYS 1-13 INSERT "day #', IF DAY 14 INSERT "the final day, day 14"] of the diary.

Please select entry you wish to complete.

1. 1st entry
2. 2nd entry
3. 3rd entry
4. 4th entry
5. 5th entry
6. 6th entry
7. 7th entry
8. 8th entry
9. 9th entry
10. 10th entry

BEV Diary – select your entry type

ASK ALL BEV SAMPLE
D2a. Are you charging or making a journey in the battery electric vehicle (BEV)?

Please select one option only
SINGLE CODE
1. Making a journey in the battery electric vehicle (BEV)
2. Charging the battery electric vehicle (BEV)
3. I did not make a journey or charge the battery electric vehicle (BEV) on this day

ASK IF D2a=1 OR 2 AND DAY 1, ENTRY 2 ONWARDS
D3a. Has someone else driven or charged the battery electric vehicle (BEV) since your last diary entry? It is not necessary for you to provide any information about someone else's use of the vehicle but your answer to this question will help us to understand vehicle usage fully.
MULTICODE 1-2
1. Yes – someone else has driven the battery electric vehicle (BEV) since my last diary entry
2. Yes – someone else has charged the battery electric vehicle (BEV) since my last diary entry
3. No – no one else has driven or charged the battery electric vehicle (BEV) since my last diary entry
4. Don't know

ASK IF D2a=3
D4a. Thank you for logging that you did not drive or charge your battery electric vehicle (BEV) today. Click the 'submit' button below to be taken back to the start of the diary for your entry tomorrow.

INSERT SUBMIT BUTTON.
SINGLE CODE

SCRIPT INSTRUCTIONS: GO BACK TO D1.

BEV Diary - Making a journey [ASK J1a-J4a IF D2a=1]

ASK IF D2a=1
J1a. What was the purpose(s) of this journey?

Please select all that apply.
MULTICODE
1. Work / Education
2. Shopping
3. Personal errands / Appointments
4. Social / Leisure
5. Holidays / Travel
6. To charge the vehicle
7. Other (please specify)
8. Don't know

ASK IF D2a=1
J2a. What was the distance in miles (or kilometres) of this journey you just completed in the battery electric vehicle (BEV)? Please include your round trip, from where you started the journey to where you returned to your original location.
Please provide your best estimate of the total distance or select 'don't know' if you are unsure.

Please type miles/km in the box below
NUMERIC
[ ]
Drop down box next to numeric distance
1. Miles
2. Kilometres
3. Don't know [EXCLUSIVE]

ASK IF D2a=1
J3a. Click the 'submit' button below to complete this journey entry. You will then be taken back to the start of the diary where you can enter your next charge or journey in the battery electric vehicle (BEV).

INSERT SUBMIT BUTTON.
SINGLE CODE

SCRIPT INSTRUCTIONS: GO BACK TO D1.

BEV Diary – Charging the BEV [ASK C1a-C11a IF D2a=2]

ASK IF D2a=2
C1a. Where is the location of this charge?
Please select one option only
SINGLE CODE
1. At a home charger
2. Work/place of education
3. Residential on-street charger (e.g. lamp post charger)
4. Business or organisation's car park (e.g. supermarket, pub, hotel, gym)
5. Motorway Service Area
6. Major A-road service area
7. Dedicated EV charging hub
8. Other location

ASK IF D2a=2
C2a. What time are you plugging the battery electric vehicle (BEV) into the charger?
Your best guess is fine if you do not know the exact time, if you are unsure, please select 'don't know'.

Please select the time in the boxes below
NUMERIC 24-HR TIME ENTRY

24-HOUR DROP-DOWN BOXES [Hour (24-hour time) box and Minute box]
1. Don't know [EXCLUSIVE]

ASK IF D2a=1
C3a. What is the battery percentage (%) of the battery electric vehicle (BEV) as you are plugging it in to charge?
If you are not sure of the exact battery percentage (%), please provide your best guess or select 'don't know'.

Please use the slider to select the closest battery percentage (%) on the scale below
SINGLE CODE – SLIDING % SCALE IN 5% INCEREMENTS
1. Don't know [EXCLUSIVE]

ASK IF D2a=2
C4a. What time are you unplugging the battery electric vehicle (BEV) from the charger?
Your best guess is fine if you do not know the exact time, if you are unsure, please select 'don't know'.

Please select the time in the boxes below

24-HOUR DROP-DOWN BOXES [Hour (24-hour time) box and Minute box]
NUMERIC 24-HR TIME ENTRY
1. Don't know [EXCLUSIVE]

ASK IF D2a=1
C5a. What is the battery percentage (%) of the battery electric vehicle (BEV) now that you are unplugging it?
If you are not sure of the exact battery percentage (%), please provide your best guess or select 'don't know'.

Please use the slider to select the closest battery percentage (%) on the scale below
SINGLE CODE – SLIDING % SCALE IN 5% INCEREMENTS
1. Don't know [EXCLUSIVE]

ASK IF C1a=2-8 [PUBLIC CHARGE]
C6a. Did you use off-peak charging during this charge?

Off-peak charging is when home energy tariffs and chargepoint providers offer cheaper off-peak energy rates at certain times of the day. Depending on the time of day you are charging, the price might be higher or lower.

Please select one option only
SINGLE CODE
1. Yes – used off-peak charging during this charge
2. No – did not make use off-peak charging during this charge
3. Don't know

ASK IF C1a=1 [HOME CHARGER]
C7a. Did you use off-peak charging during this charge?

Off-peak charging is when home energy tariffs and chargepoint providers offer cheaper off-peak energy rates at certain times of the day. Depending on the time of day you are charging, the price might be higher or lower.

Please select one option only
SINGLE CODE
1. Yes – used off-peak charging during this charge
2. No – did not make use off-peak charging during this charge
3. Don't know

ASK IF C1a=1 [HOME CHARGER]
C8a. Did the charger use 'smart' charging for this charger?

A smart home charger is connected to the internet so it can be operated remotely to optimise energy consumption.

Please select one option only
SINGLE CODE
1. Yes – used smart charging during this charge
2. No – did not make use smart charging during this charge
3. Don't know

ASK IF C1a=2-8
C9a. What was the advertised cost per kW of the chargepoint used (in pence)?
If you are not sure of the exact amount, please provide your best guess or select 'don't know'

Please type the amount (xxx pence) in the box below
NUMERIC - PENCE
[ ]
pence [NEXT TO PENCE BOX] ALLOW VALUES 0-99 only
1. Don't know [EXCLUSIVE]

ASK IF C1a=2-8
C10a. What was the chargepoint provider at the public chargepoint used for this charge?
If you are not sure please, select 'don't know' at the bottom of the list.

Please select one option only
SINGLE CODE
1. BP Pulse (Chargemaster)
2. Gridserve Electric Highway
3. Instavolt
4. Osprey/Engenie
5. Pod Point
6. Shell Recharge Ubtricity
7. Connected Kerb
8. Char.gy
9. ChargePlace Scotland
10. Source London
11. SureCharge
12. Blink
13. Fuuse
14. Mer
15. Swarco E.Connect
16. Other chargepoint provider

17. Don't know

ASK IF C1a=2-8
C11a. What was the advertised power of the chargepoint used for this charge?
If you are not sure, please select 'don't know' at the bottom of the list.

Please select one option only
SINGLE CODE
1. Lower power charger (up to 22kW)
2. Standard power charger (22kW-40kW)
2. Rapid charger (50kW-149kW)
3. Ultra rapid charger (150+kW)
4. Don't know

ASK IF D2a=2
C12a. Click the 'submit' button below to complete this journey entry. You will then be taken back to the start of the diary where you can enter your next charge or journey in the battery electric vehicle (BEV).

INSERT SUBMIT BUTTON.
SINGLE CODE

SCRIPT INSTRUCTIONS: GO BACK TO D1a.

Introductory instructions for diary – PHEV respondents (to be sent to sample ahead of diary along with link to access diary)

Here is what to do

Day one: On the first day you complete this diary, we will start off with some questions about you and the plug-in hybrid electric vehicle (PHEV) you drive most often. After completing these, you will be able to make your first diary entry (each entry will take about 2-3 mins).

Diary entries: Please fill out the diary **at least once a day**, even if you don't drive or charge the plug-in hybrid electric vehicle (PHEV) that day. Just choose the option "I did not drive or charge my electric vehicle today." You may need to complete the diary more than once a day for example if you make multiple journeys and/or charge your vehicle. Further information about how to make entries for a charge and a journey is provided below.

Charging entries: Each time you charge the plug-in hybrid electric vehicle (PHEV), **fill out a charging entry**. If possible, do this **in real time** using your smartphone. This means:

- When you plug in the plug-in hybrid electric vehicle (PHEV), open the diary and start a new charging entry. Enter the time and battery percentage.
- When you unplug your vehicle, go back to that same entry and enter the time and battery percentage again and complete any other questions asked about this charge.

Journey entries: Each time you drive the plug-in hybrid electric vehicle (PHEV), **fill out a journey entry**. This can be done at the end of the journey but you will be asked about the distance so please keep this in mind when you record a journey.

Journeys with charging: If you charge the plug-in hybrid electric vehicle (PHEV) during or after a journey, **fill out both a charging entry and a journey entry**.

What if someone else drives my vehicle?
You have said that you are likely going to be the sole driver of the plug-in hybrid electric vehicle (PHEV) that you drive most often over this two-week period. If someone else does happen to drive or charge this plug-in hybrid electric vehicle (PHEV) in these two weeks, please ensure you record when asked in the diary.

How long will this take?
Each entry should only take 2-3 minutes.

Thanks for helping us understand how people use plug-in hybrid electric vehicles (PHEVs)!

Day 1: Context questions (only asked once, on day 1)

ASK ALL PHEV SAMPLE
CX1b. Which of the following best describes your gender?

Please select one option only
SINGLE CODE
1. Man
2. Woman
3. Non-binary
4. My gender is not listed
5. I would prefer not to say

ASK ALL PHEV SAMPLE
CX2b. What is your age?

Please select one option only
SINGLE CODE
1. Under 17 **[SCREEN OUT]**
2. 17-24
3. 25-34
4. 35-44
5. 45-54
6. 55-59
7. 60-64
8. 65-74

9. 75+
10. Prefer not to say

ASK ALL PHEV SAMPLE
CX3b. What make and model is the plug-in hybrid electric vehicle (PHEV) you drive most often?
SINGLE CODE
FOR MAKE: USE TYPE AND SEARCH FUNCTIONALITY. ALLOW OPEN END TEXT TO BE ENTERED HERE IF MAKE OF CAR/VAN NOT ON THE LIST
FOR MODEL: SINGLE CODE – SHOW ALL MODELS APPLICABLE IN USUAL ANSWER OPTION LIST

DISPLAY ABOVE "Make drop down": Please type in the name of the make of your plug-in hybrid electric vehicle (PHEV) (e.g. Ford, Honda, etc.) and select the make from the available list. If the make of your plug-in hybrid electric vehicle (PHEV) does not appear on the list, please just type the make and then enter model in the "Other model" text box below.
DISPLAY ABOVE Model drop down: Please select the model from the drop-down list shown. If your model is not on the list please type this in to the "Other model" text box.
SINGLE CODE
INSERT PHEV MAKE LIST
1. Other model (please specify)
2. Don't know model **[SCREEN OUT]**

ASK ALL PHEV SAMPLE
CX5b. You told us in the survey you completed earlier in November, about the plug-in hybrid electric vehicle (PHEV) you drive most often, that you expect to be the only person who drives or charges this vehicle throughout this 14-day diary. Is this still correct?

Please select one option only
SINGLE CODE
1. Yes – I plan to be the only person who drives or charges the plug-in hybrid electric vehicle (PHEV) I drive most often
2. No – someone else will drive or charge the plug-in hybrid electric vehicle (PHEV) **[SCREEN OUT]**
3. Don't know **[SCREEN OUT]**

ASK ALL PHEV SAMPLE
CX6. What is the battery size of the plug-in hybrid electric vehicle (PHEV) you drive most often?
If you are not sure what the battery size is, please select 'don't know' at the bottom of the list.

Select one option only
SINGLE CODE
1. Less than 30kWh
2. 30-50kWh
3. 51-60kWh
4. 61-70kWh
5. 71-80kWh
6. 81-90kWh
7. 91-100kWh
8. More than 100kWh
9. Don't know

ASK ALL PHEV SAMPLE
CX7b. Which of these statements best describes your access to a charger for the plug-in hybrid electric vehicle (PHEV) at home?

Please select one option only
SINGLE CODE

1. I have a dedicated electric vehicle charger installed at home
2. I do not have a dedicated electric vehicle charger installed at home, but have an alternative method of charging the plug-in hybrid electric vehicle (PHEV) at home (e.g. running an extension cable through my window or letterbox)
3. I have no available method of charging the plug-in hybrid electric vehicle (PHEV) at home

ASK ALL PHEV SAMPLE

TEXT_Cb. Thank you for completing these initial questions to help us understand a bit more about the plug-in hybrid electric vehicle (PHEV) you drive most often.

Throughout this two-week diary we will be asking you about the plug-in hybrid electric vehicle (PHEV) you drive most often in the survey you completed earlier in November.

Please remember to come back to the diary at least once a day to record every time you charge or drive the plug-in hybrid electric vehicle (PHEV).

Please click 'continue' to enter the first screen of the diary where you will be able to select the type of entry you want to make. Once you have completed each entry, you will always be taken back to this first screen where you will be able to select your next diary entry type.

INSERT CONTINUE BUTTON
SINGLE CODE – CONTINUE BUTTON

ASK ALL PHEV SAMPLE
Landing. ***Please complete a diary entry for each day.***

The days of your diary that are available for you to complete now are shown in the grid below. You can complete any diary day in the past, at any time before the end of the survey period. Please select the survey date you wish to complete.

1. 1st entry (21 November)
2. 2nd entry (22 November)
3. 3rd entry (23 November)
4. 4th entry (24 November)
5. 5th entry (25 November)
6. 6th entry (26 November)
7. 7th entry (27 November)
8. 8th entry (28 November)
9. 9th entry (29 November)
10. 10th entry (30 November)
11. 11th entry (1 December)
12. 12thentry (2 December)
13. 13th entry (3 December)
14. 14th entry (4 December)

Click bellow if you want to opt out from the diary
1. Opt out

ASK ALL PHEV SAMPLE
LAND2B. Welcome to [IF DAYS 1-13 INSERT "day #', IF DAY 14 INSERT "the final day, day 14"] of the diary.

Please select entry you wish to complete.

1. 1st entry
2. 2nd entry
3. 3rd entry
4. 4th entry
5. 5th entry
6. 6th entry
7. 7th entry
8. 8th entry
9. 9th entry
10. 10th entry

PHEV Diary – select your entry type

ASK ALL PHEV SAMPLE IF **LAND2B=1**
NUMERIC DATE ENTRY
D1b. Welcome to [IF DAYS 1-13 INSERT "day #', IF DAY 14 INSERT "the final day, day 14"] of the diary. What is the date today? *If you are entering a diary entry on a day after the journey or charge took place, please select the date that the journey or charge in the plug-in hybrid electric vehicle (PHEV) took place.*

Select date from drop-down

INSERT DAY/MONTH/YEAR DROP DOWN BOX

ASK ALL PHEV SAMPLE
D2b. Are you charging or making a journey in the plug-in hybrid electric vehicle (PHEV)?

Please select one option only
SINGLE CODE
1. Making a journey in the plug-in hybrid electric vehicle (PHEV)
2. Charging the plug-in hybrid electric vehicle (PHEV)
3. I did not make a journey or charge the plug-in hybrid electric vehicle (PHEV) on this day

ASK IF D2b=1 OR 2
D3b. Has someone else driven or charged the plug-in hybrid electric vehicle (PHEV) since your last diary entry? It is not necessary for you to provide any information about someone else's use of the vehicle but your answer to this question will help us to understand vehicle usage.
MULTICODE 1-2 AND DAY 1, ENTRY 2 ONWARDS
1. Yes – someone else has driven the plug-in hybrid electric vehicle (PHEV) since my last diary entry
2. Yes – someone else has charged the plug-in hybrid electric vehicle (PHEV) since my last diary entry
3. No – no one else has driven or charged the plug-in hybrid electric vehicle (PHEV) since my last diary entry
4. Don't know

ASK IF D2b=3
SINGLE CODE
D4b. Thank you for logging that you did not drive or charge the plug-in hybrid electric vehicle (PHEV) today. Click the 'submit' button below to be taken back to the start of the diary for your entry tomorrow.

INSERT SUBMIT BUTTON.
SINGLE CODE

SCRIPT INSTRUCTIONS: GO BACK TO D1b.

PHEV Diary - Making a journey [ASK J1b-J6b IF D2b=1]

ASK IF D2a=1
J1b. What was the purpose(s) of this journey?

Please select all that apply.
MULTICODE
1. Work / Education
2. Shopping
3. Personal errands / Appointments
4. Social / Leisure
5. Holidays / Travel
6. To charge the vehicle
7. Other (please specify)
8. Don't know

ASK IF D2b=1
J2b. What was the distance in miles (or kilometres) of this journey you just completed in the plug-in hybrid electric vehicle (PHEV)? Please include your round trip, from where you started the journey to where you returned to your original location.
Please provide your best estimate of the total distance or select 'dDon't know' if you are unsure.

Please type miles/km in the box below
NUMERIC

Drop down box next to numeric distance

1. Miles
2. Kilometres
3. Don't Know [EXCLUSIVE]

ASK IF D2b=1
J4b. What percentage (%) of this journey was driven in electric mode?
Your best guess is fine if you do not know the percentage (%), if you are unsure, please select 'don't know'.
SINGLE CODE

1. 0% - None of this journey was in electric mode
2. 1%-10%
3. 11%-20%
4. 21%-30%
5. 31%-40%
6. 41%-50%
7. 51%-60%
8. 61%-70%
9. 71%-80%
10. 81%-90%
11. 91-99%
12. 100% - All of this journey was in electric mode
13. Don't know

ASK IF D2b=1
SINGLE CODE
J5. Click the 'submit' button below to complete this journey entry. You will then be taken back to the start of the diary where you can enter your next charge or journey in the plug-in hybrid electric vehicle (PHEV).

INSERT SUBMIT BUTTON.
SINGLE CODE

SCRIPT INSTRUCTIONS: GO BACK TO D1b.

PHEV Diary – Charging the PHEV [ASK C1b-C11b IF D2b=2]

ASK IF D2b=2

C1b. Where is the location of this charge?

SINGLE CODEPlease select one option only

1. At a home charger
2. Work/place of education
3. Residential on-street charger (e.g. lamp post charger)
4. Business or organisation's car park (e.g. supermarket, pub, hotel, gym)
5. Motorway Service Area
6. Major A-road service area
7. Dedicated EV charging hub
8. Other location

ASK IF D2b=2

C2b. What time are you plugging the plug-in hybrid electric vehicle (PHEV) into the charger?

Your best guess is fine if you do not know the exact time, if you are unsure, please select 'don't know'.

Please select the time in the boxes below

NUMERIC 24-HR TIME ENTRY

24-HOUR DROP-DOWN BOXES [Hour (24-hour time) box and Minute box]

1. Don't know [EXCLUSIVE]

ASK IF D2b=1

C3b. What is the battery percentage (%) of the plug-in hybrid electric vehicle (PHEV) (SPACE) as you are plugging it in to charge?

If you are not sure of the exact battery percentage (%), please provide your best guess or select 'don't know'.

Please use the slider to select the closest battery percentage (%) on the scale below

SINGLE CODE – SLIDING % SCALE IN 5% INCEREMENTS

1. Don't know [EXCLUSIVE]

ASK IF D2b=2

C4b. What time are you unplugging the plug-in hybrid electric vehicle (PHEV)from the charger?

Your best guess is fine if you don't know the exact time, if you are unsure, please select 'don't know'.

Please select the time in the boxes below

24-HOUR DROP-DOWN BOXES [Hour box and Minute box]

NUMERIC 24-HR TIME ENTRY

1. Don't know [EXCLUSIVE]

ASK IF D2b=1

C5b. What is the battery percentage (%) of the plug-in hybrid electric vehicle (PHEV) now that you are unplugging it?

If you are not sure of the exact battery percentage (%), please provide your best guess or select 'don't know'.

Please use the slider to select the closest battery percentage (%) on the scale below

SINGLE CODE – SLIDING % SCALE IN 5% INCEREMENTS

1. Don't know [EXCLUSIVE]

ASK IF C1b=2-8 [PUBLIC CHARGE]

C6b. Did you use off-peak charging during this charge?

Off-peak charging is when home energy tariffs and chargepoint providers offer cheaper off-peak energy rates at certain times of the day. Depending on the time of ~~the~~ day you are charging, the price might be higher or lower.

Please select one option only

SINGLE CODE

1. Yes – used off-peak charging during this charge
2. No – did not make use off-peak charging during this charge

3. Don't know

ASK IF C1b=1 [HOME CHARGER]
C7b. Did you use off-peak charging during this charge?

Off-peak charging is when home energy tariffs and chargepoint providers offer cheaper off-peak energy rates at certain times of the day. Depending on the time of ~~the~~ day you are charging, the price might be higher or lower.

Please select one option only
SINGLE CODE
1. Yes – used off-peak charging during this charge
2. No – did not make use off-peak charging during this charge
3. Don't know

ASK IF C1b=1 [HOME CHARGER]
C8b. Did the charger use 'smart' charging for this charger?

A smart home charger is connected to the internet so it can be operated remotely to optimise energy consumption.

Please select one option only
SINGLE CODE
1. Yes – used smart charging during this charge
2. No – did not make use smart charging during this charge
3. Don't know

ASK IF C1b=2-8
C9b. What was the advertised cost per kW of the chargepoint used (in pence)?
If you are not sure of the exact amount, please provide your best guess or select 'don't know'. (Italicised)

Please type the amount (xxxpence) in the box below
NUMERIC - PENCE

pence [NEXT TO PENCE BOX] Allow values 0-99 only
1. Don't know [EXCLUSIVE]

ASK IF C1b=2-8

C10b. What was the chargepoint provider at the public chargepoint used for this charge?
If you are not sure, please select 'don't know' at the bottom of the list.

Please select one option only
SINGLE CODE

1. BP Pulse (Chargemaster)
2. Gridserve Electric Highway
3. Instavolt
4. Osprey/Engenie
5. Pod Point
6. Shell Recharge Ubtricity
7. Connected Kerb
8. Char .gy
9. ChargePlace Scotland
10. Source London
11. SureCharge
12. Blink
13. Fuuse
14. Mer
15. Swarco E.Connect
16. Other chargepoint provider
17. Don't know

ASK IF C1b=2-8

C11b. What was the advertised power of the chargepoint used for this charge?
If you are not sure, please select 'don't know' at the bottom of the list.

Please select one option only
SINGLE CODE

1. Lower power charger (up to 22kW)
2. Standard power charger (22kW-40kW)
3. Rapid charger (50kW-149kW)
4. Ultra rapid charger (150+kW)
5. Don't know

ASK IF D2b=2

C12b. Click the 'submit' button below to complete this journey entry. You will then be taken back to the start of the diary where you can enter your next charge or journey in the plug-in hybrid electric vehicle (PHEV).

INSERT SUBMIT BUTTON.
SINGLE CODE

SCRIPT INSTRUCTIONS: GO BACK TO D1b.

Our standards and accreditations

Ipsos' standards and accreditations provide our clients with the peace of mind that they can always depend on us to deliver reliable, sustainable findings. Our focus on quality and continuous improvement means we have embedded a "right first time" approach throughout our organisation.

ISO 20252

This is the international specific standard for market, opinion and social research, including insights and data analytics. Ipsos UK was the first company in the world to gain this accreditation.

Market Research Society (MRS) Company Partnership

By being an MRS Company Partner, Ipsos UK endorse and support the core MRS brand values of professionalism, research excellence and business effectiveness, and commit to comply with the MRS Code of Conduct throughout the organisation & we were the first company to sign our organisation up to the requirements & self-regulation of the MRS Code; more than 350 companies have followed our lead.

ISO 9001

International general company standard with a focus on continual improvement through quality management systems. In 1994 we became one of the early adopters of the ISO 9001 business standard.

ISO 27001

International standard for information security designed to ensure the selection of adequate and proportionate security controls. Ipsos UK was the first research company in the UK to be awarded this in August 2008.

The UK General Data Protection Regulation (UK GDPR) and the UK Data Protection Act 2018 (DPA)

Ipsos UK is required to comply with the UK General Data Protection Regulation (GDPR) and the UK Data Protection Act (DPA). These cover the processing of personal data and the protection of privacy.

HMG Cyber Essentials

Cyber Essentials defines a set of controls which, when properly implemented, provide organisations with basic protection from the most prevalent forms of threat coming from the internet. This is a government-backed, key deliverable of the UK's National Cyber Security Programme. Ipsos UK was assessed and validated for certification in 2016.

Fair Data

Ipsos UK is signed up as a "Fair Data" company by agreeing to adhere to twelve core principles. The principles support and complement other standards such as ISOs, and the requirements of data protection legislation. .

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About Ipsos Public Affairs

Ipsos Public Affairs works closely with national governments, local public services and the not-for-profit sector. Its c.200 research staff focus on public service and policy issues. Each has expertise in a particular part of the public sector, ensuring we have a detailed understanding of specific sectors and policy challenges. Combined with our methods and communications expertise, this helps ensure that our research makes a difference for decision makers and communities.