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Electric vehicle survey 2023

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The great EV divide

The electrification of company car fleets continues apace but van fleets are still favouring diesel, according to the latest Fleet200 Strategy Network research. *Sarah Tooze* reports

The latest Fleet200 Strategy Network (FSN) survey has revealed the huge variations that continue to exist in the transition to a fully electric fleet.

The biggest gulf is between car and van fleets. The electrification of company car fleets continues apace: full electric makes up about a fifth (19.7%) of company car fleets - almost double a year ago (10.8%) - and accounts for two-fifths of current orders (39.1%). But for van fleets, it's a different story as electric accounts for just 4% of the current fleet (barely up from 3.3% last year) and makes up only 16% of orders (down from 24.9% last year), with diesel still dominant at 89.2% of the current van fleet and 81% of orders.

Given the current fleet make-up it's perhaps no surprise that company car fleets are more optimistic about achieving a 100% zero emission fleet by the time the Government's ban on the sale of new petrol and diesel cars and vans takes effect in 2030.

More than three-quarters (77%) say their car fleet will be zero emission by 2030, with 23% setting a deadline of 2027 and 23% opting for 2030.

In contrast, more than half (53%) of van fleets expect all of their vehicles to be zero emission after 2030.

Almost half (46%) don't have a plan to transition their van fleet to be 100% zero emission, compared to 75% of company car fleets.

Despite company car fleets being further ahead, the survey reveals that a quarter of businesses with company cars are unprepared for the transition.

Fleet operators in that bracket will soon need to give electric vehicles (EVs) some serious thought. If they replace their cars every three or four years, as is the norm, then the 2030 ban is just one or two replacement cycles away.

SMALLER FLEETS LESS LIKELY TO HAVE EV PLAN

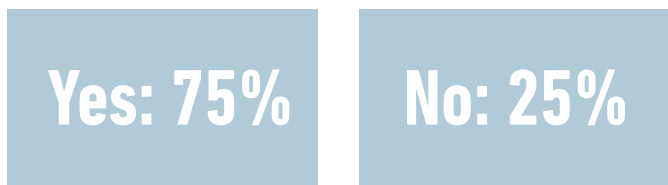
Smaller fleets are less likely to have a plan in place. More than two-thirds (37%) of fleets with up to 100 vehicles say they don't have a plan compared with 15% of fleets with 101-500 vehicles and 20% of fleets with more than 500 vehicles.

With van fleets, the trend is more pronounced. More than half (59%) of fleets with up to 100 vehicles lack a plan compared to 44% of fleets with 101-500 vehicles and 23% of fleets with more than 500 vehicles.

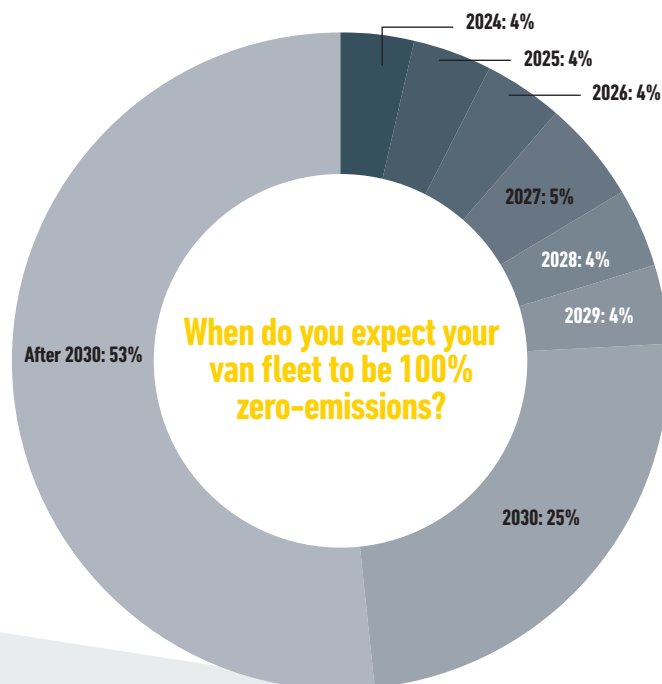
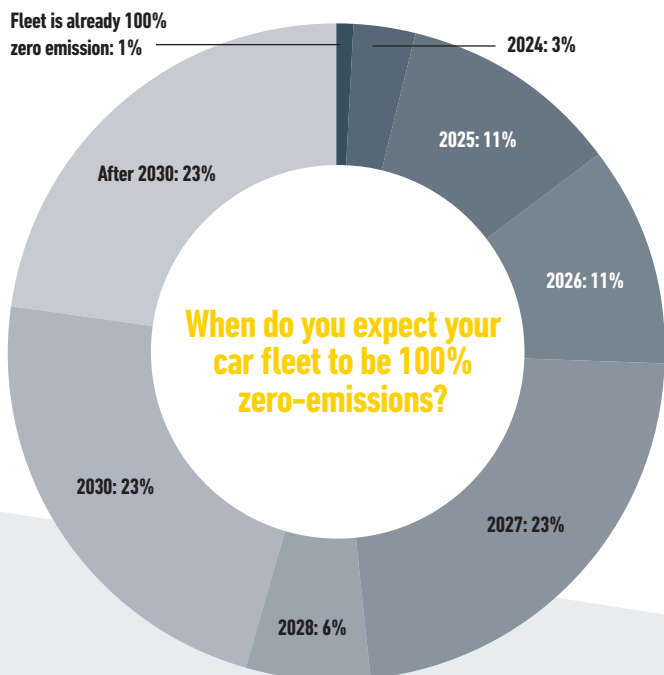
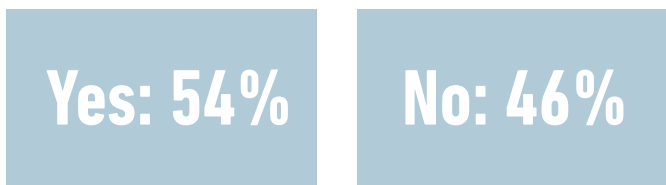
Fleets with more than 100 vehicles make up 51% of this quarter's survey respondents, with 29% operating 101-500 vehicles and 22% operating more than 500 vehicles. At the other end of the scale, 49% have up to 100 vehicles.

Most (82%) operate in the private sector. Although the sample size is smaller,

Do you have a plan to transition your car fleet to be 100% zero-emission?



Do you have a plan to transition your van fleet to be 100% zero-emission?



ROLE OF PLUG-IN HYBRIDS

Plug-in hybrid electric vehicles (PHEVs) have grown their share of company car fleets by almost five percentage points (from 12.4% in 2022 to 17.2% this year).

Similarly, they are taking a greater proportion of company car orders at 30%, up from 26% last year.

This contradicts the idea that drivers are leapfrogging plug-in hybrids and going straight from diesel or petrol to full electric, and instead PHEVs remain a stepping stone for some drivers.

The latest registrations data from the Society of Motor Manufacturers and Traders (SMMT) also shows more uptake of PHEVs with sales up 23% in May 2023 versus May 2022, giving them a market share of 6.2%, compared to 5.9% the same time last year, although full electric saw a 58.7% increase in May, with a 16.9% market share.

Siemens introduced plug-in hybrids to its fleet in 2018 as an “interim solution”, according to Wayne Warburton, Siemens UK head of Mobility Services.

For many of its drivers, making the switch from diesel to EV in 2018 was

“just not viable”, he says.

“Our strategy was to let people get used to PHEV, charging mainly at home and at work.”

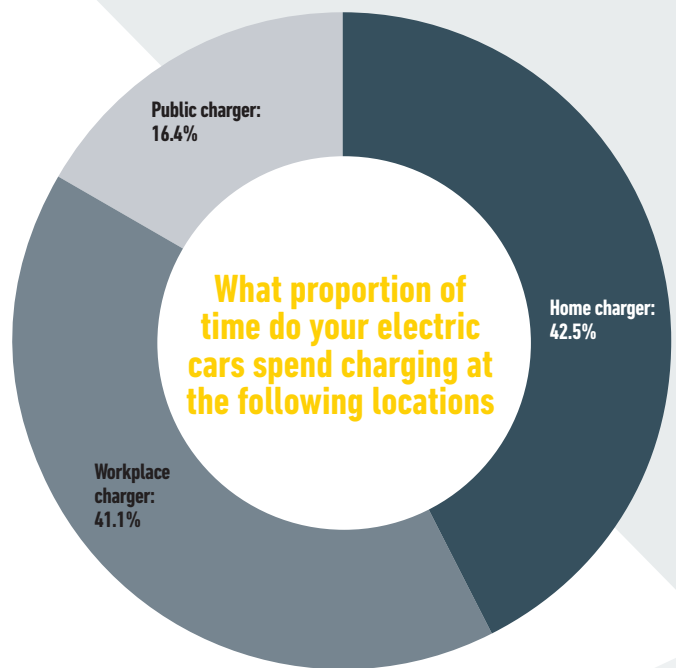
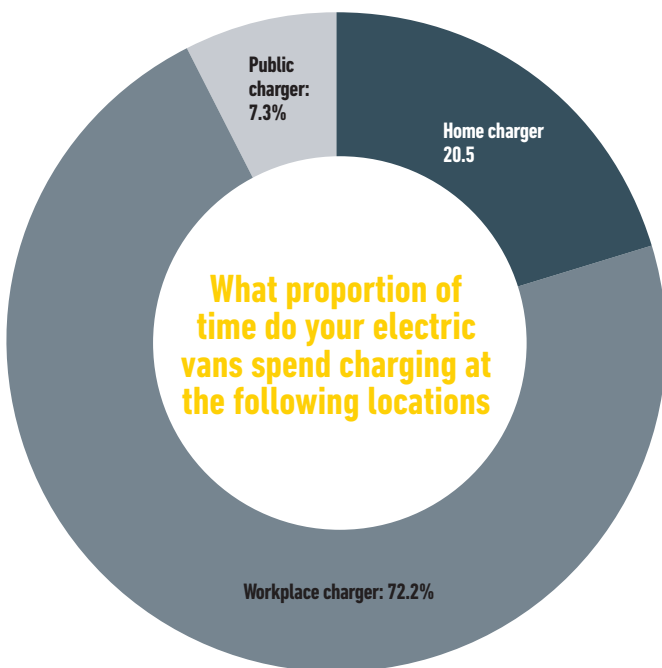
This has led to a gradual uptake of pure electric vehicles, with hybrids still accounting for the lion's share of Siemens' 2,100 company cars at the start of the year.

However, there has been a spike in pure EV orders this year and Warburton thinks they could soon overtake PHEV orders.

Although the FSN survey indicates there is more appetite for PHEVs than previously, anecdotal evidence suggests wait times are longer for plug-in hybrids than pure electric, petrol and diesel vehicles.

Overall, lead times are reducing from the lengthy 12 to 18 months experienced last year for cars (vans can still take a year from order).

Fleet operators report that lead times for company cars can be just three to four months with certain manufacturers now and, crucially, they are also not getting as many cancellations.



there are clear differences between public sector fleet operators and private sector fleets. Notably, 100% of public sector car fleets say they have a plan to transition their car fleet to be zero emission compared to 70% of private sector car fleets.

Public sector fleets are also more likely to have a transition deadline in place for their vans with 81% saying they have a plan compared to 46% of private sector fleets.

There is a need for public sector fleets to be seen to be leading from the front in EV adoption and central Government fleets have long been tasked with lowering their average CO2 emissions.

Average CO2 emissions for the car fleets of FSN members continues to fall, as EV adoption rises. In the latest benchmarking survey they have dropped from 90g/km last year to 78.9g/km, with forward orders at 32.2g/km (down from 42g/km last year).

DEFRA SETS 2027 DEADLINE FOR ZERO EMISSIONS

Dale Eynon, fleet director at Defra Group Fleet Services, is among the FSN members to have formulated a plan for a zero emission fleet.

Being a Government body, and an environmentally-focused one at that, the

Defra fleet is ahead of the curve and Eynon intends to achieve a fully electric fleet by 2027.

Currently, more than 800 of Defra's 5,200 vehicles are full EVs. For the Environment Agency, there are around 725 pure EVs (676 cars and 49 vans), with a further 150 electric vans coming into service in the next two months.

The challenge, says Eynon, is 4x4s. He thinks it could be 2025 before there is something on the market that will meet his fleet requirements, which means Defra will have only two years to replace about 1,000 vehicles.

National Grid, which intends to make its fleet zero emission by 2030, also operates 4x4s and is having to rethink at what point in the preceding years it will replace them with electric.

This illustrates how the commercial vehicle fleet can be more challenging than company cars to switch to electric.

For fleets operating in the construction sector, which make up the highest proportion of responses to the latest FSN survey at 17%, electric vans have limitations due to the amount of heavy towing and the need to carry a large amount of kit.

In other sectors, such as retail, electric vans have proven successful, particularly as a last-mile delivery solution for fleets like DHL and DPD.

Ocado Group, which has 2,100 3.5-tonne home delivery vans and 180 tractor units, has been operating electric vans since 2019.

It now has a fleet of 39 electric refrigerated vans powered by Bedeo technology and one Ford E-Transit.

The current EV fleet operates in low mileage sites but as the Ocado Group looks to expand to larger sites, efficiency will become a consideration, according to fleet operations manager Graham Thomas.

It could mean that drivers have to do fewer deliveries in order to allow for charging time en route.

For the fleet's heavier vehicles, Ocado has been lowering emissions by using blended biomethane, a compressed natural gas (CNG), and this now makes up 50% of the fleet (90 vehicles).

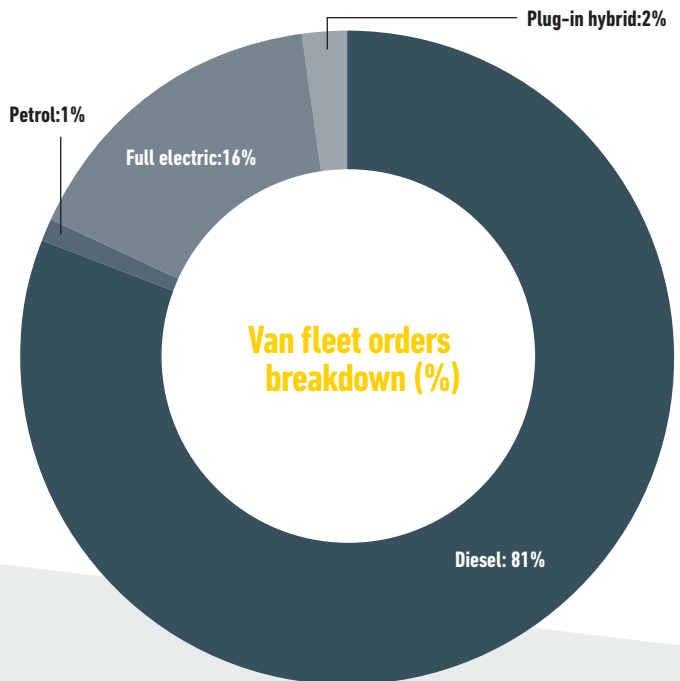
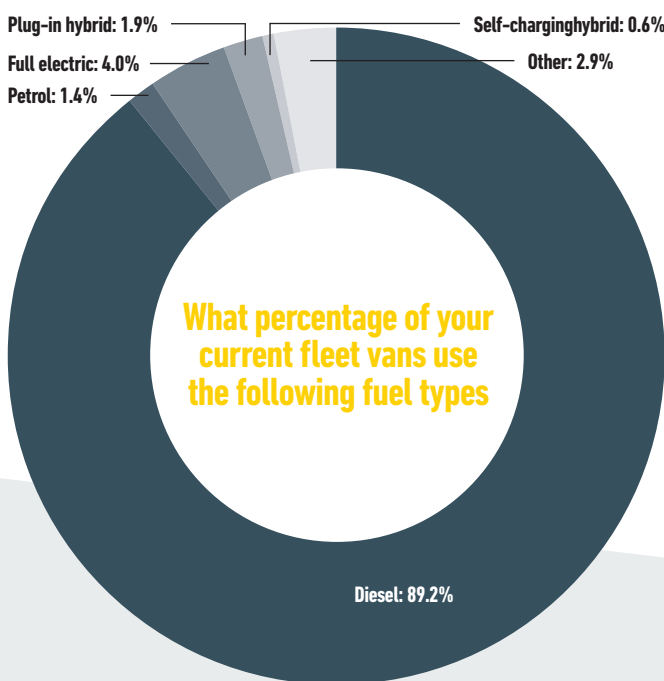
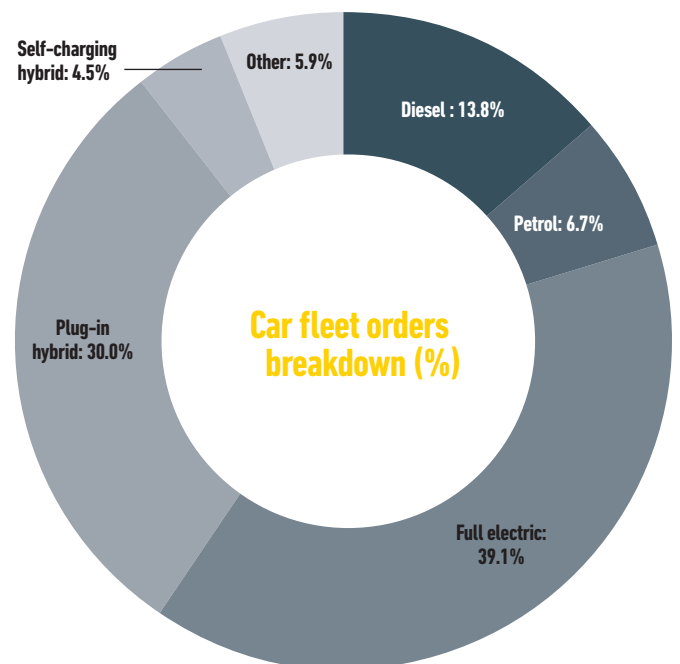
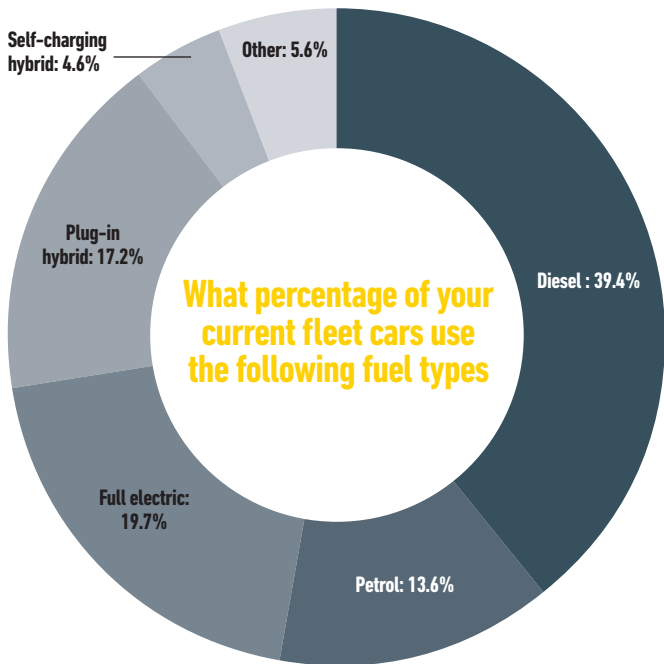
Thomas also believes hydrogen will play a part.

"Hydrogen fuel cell will almost certainly be required for distance routes on HGV, but possibly even for some 3.5-tonne applications where high mileage is needed," he says.

Hydrogen was not part of this FSN benchmarking survey but will form part of fleet operator's long-term strategy for HGVs, ahead of the Government's commitment to end the sale of all new, non-zero emission HGVs by 2040

Fleets will be keeping a close eye on projects such as the Department for Transport and Innovate UK's £140 million Zero Emission Road Freight (ZERFT) Demonstration programme.

The aim is to kick-start the deployment of long haul zero emission HGVs, with a multi-year demonstration of 40-44-tonne hydrogen fuel cell trucks. It will include the development of the required business models for scalable deployment and a network of dedicated infrastructure.



BIGGEST EV CHALLENGES

The biggest challenges businesses face in the switch to electric vehicles (EVs) mirror last year's Fleet200 Strategy Network (FSN) findings. Namely, an electric vehicle's range not being sufficient for a job/mileage requirement, lack of public charging infrastructure, the cost of vehicles and many drivers not having off-road parking for a home charger.

There is a clear link between three of the concerns - if a driver can't use a home charger because they don't have off-road parking they will be forced to use a public charger and if that's lacking they will need to rely on the vehicle having enough range until they can charge at a company-owned office or depot.

And that assumes that a driver goes in to an office or depot - not all do.

The impact of the Covid-19 pandemic has placed an even greater reliance on charging away from the office with more employees switching to home-working or a combination of being office and home-based.

Some businesses have chosen not to allow drivers to have an electric vehicle unless they can charge at home.

UNEVEN GEOGRAPHICAL SPREAD OF PUBLIC CHARGERS

The Government is investing heavily to improve public EV charging. It has pledged £1.6 billion to build a network of 300,000 charge points by 2030.

Currently there are 43,626 charging points in the UK, including 8,484 rapid and ultra-rapid chargers, according to the latest stats from ZapMap (end of May 2023), and there continues to be an uneven geographical spread of charging points with Greater London having the most (13,455), followed by the South East with 5,565 and Scotland with 3,972.

The Government wants to achieve more equitable regional access for all drivers and has said that every local authority will have resource dedicated to EV infrastructure delivery.

It has launched a £343 million scheme for local charge points, known as the Local Electric Vehicle Infrastructure (LEVI) fund, and revised its on-street residential charge point scheme, which has seen 4,000 charge points

installed with a further 10,000 in the pipeline.

While the on-street residential charge point scheme has been demand-based, with local authorities applying to the Government for a share of funding, the LEVI scheme sees funds allocated across all local authorities.

EV HUB SOLUTION

Private sector investment and innovation is also vital to expand EV charging infrastructure.

Last year, BP announced that its charging business BP Pulse would be investing £1bn over the next 10 years to triple the number of public charging points in its UK network, accelerate the roll out of 300kW and 150kW ultra-fast charging points that are able to provide EV drivers up to 100 miles of range in around 10 minutes of charging (depending on the model of electric vehicle), upgrade its current EV charging technology across its public charging network to improve reliability, and support hundreds of new jobs in the UK.

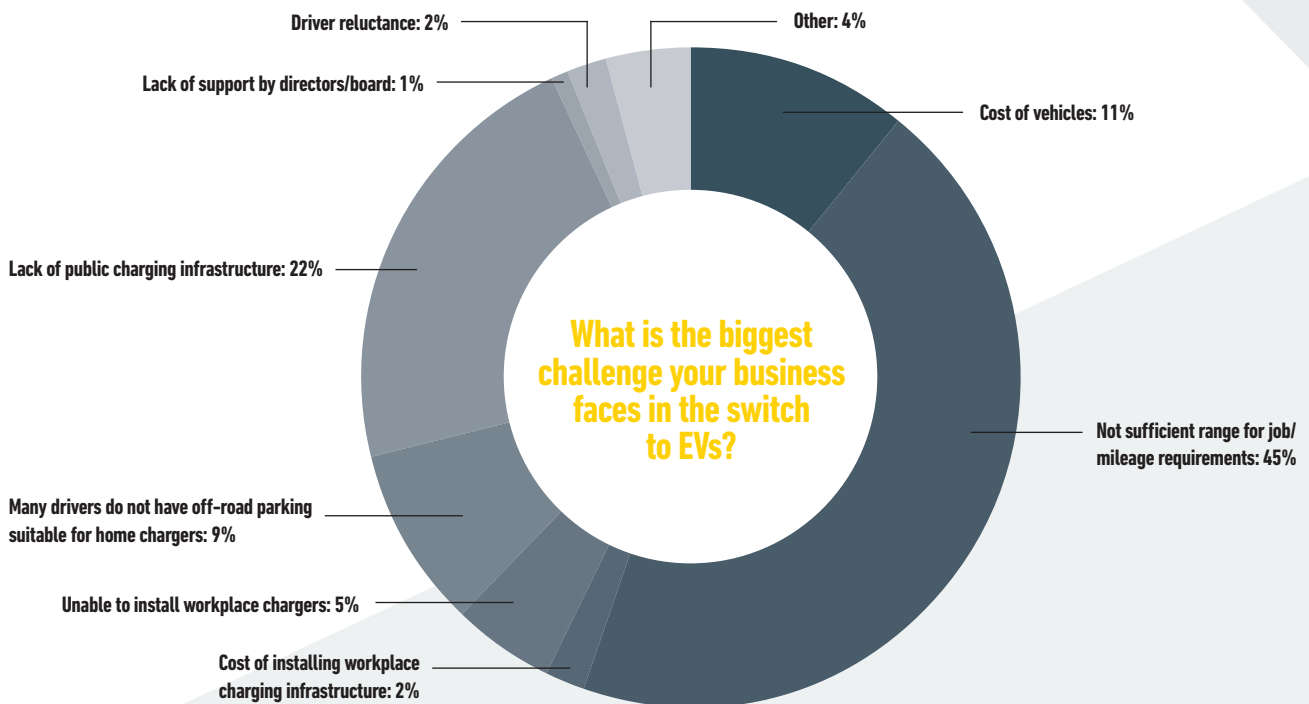
It has opened two EV hubs in London's Park Lane and Kentish Town, which provide ultra-fast chargers to the public and fleet drivers.

Strategic partner Uber has dedicated chargers for its drivers at the BP EV hubs. Uber says that drivers on its platform in Europe are switching to EVs five times faster than the general population, and it is aiming for a 100% EV fleet in London by the end of 2025.

Similarly, fleets operating in rural areas are considering how a dedicated EV hub could help drivers who don't have off-road parking.

Dale Eynon, fleet director at Defra Group Fleet Services, says: "One of the things a leasing company can do is map out where your drivers are based. If there are a number of drivers without off-street parking who all broadly live in the same area you could then put a charge point somewhere local to them."

The fleet drivers could have exclusive use of the charging point for set periods of time, with the charge point available to the public at other times for a fee, in much the same way that a corporate car club vehicle can be available at evenings and weekends for the general public to help offset the monthly hire cost.



NO ONE-SIZE-FITS-ALL FOR REIMBURSEMENT

Fleet200 Strategy Network (FSN) survey respondents are taking a variety of approaches to reimbursing car drivers for electricity use for business mileage.

About two fifths (41%) use the Advisory Electricity Rate (AER) of 9p per mile (ppm), set by HMRC on a quarterly basis.

HMRC increased the AER from 8ppm at the start of this year after changing the way it calculated the AER in order to better reflect prices.

The AER was originally based on an annual figure published by the Department for Business, Energy & Industrial Strategy (BEIS), and the electrical energy consumption values for each car model, provided by the Department for Transport (DfT). It now incorporates figures published in the Office for National Statistics (ONS) quarterly index for domestic electricity, a figure which formed part of the Consumer Price Index.

However, the majority (73.5%) of fleet operators who responded to a poll on the Fleet News website think the AER rate should be 10ppm or above.

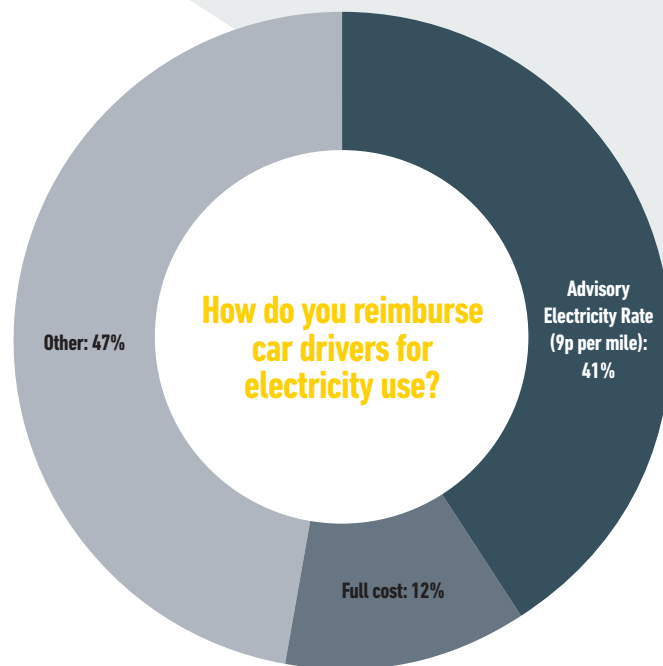
Given this, it's not surprising that 59% of FSN survey respondents don't use AERs.

Just over a tenth (12%) of respondents say they reimburse drivers the full cost of electricity, which requires them to calculate the miles claimed, the amount of electricity used and the cost of that electricity. Drivers should ideally provide a VAT receipt which isn't always easy to obtain when using a public charger.

Another option is for an organisation to set an alternative rate, with approval from HMRC. This can be done without any tax implications provided the organisation can show evidence that the rate paid is reflective of the true cost.

National Grid takes a hybrid approach of the AER plus a 'top-up'. This means that the drivers submit their mileage expenses and are reimbursed at 9ppm, and at the end of the month National Grid analyses the mileage for each employee in conjunction with the RAC Charge Watch average price for using ultra-rapid chargers and then pays a top-up to employees, which is subject to income tax and national insurance.

A number of Fleet200 Strategy Network members say they don't reimburse EV drivers for electricity, which is likely to be because drivers



charge at the office and the company pays the bill.

The survey shows a high level of workplace charging for van fleets, which is likely to be depot-based.

Respondents told us that their vans spend a fifth (20.5%) of their time charging at home, nearly three-quarters (72.3%) using a workplace charge and just 7.3% using a public charger.

Home and workplace charging is more evenly split with cars (42.5% and 41.1% respectively), with public chargers being used for only 16.4% of charging, reflecting the challenges fleets face with public charging infrastructure.

SMR DOWNTIME FOR ELECTRIC VEHICLES

Theoretically, electric vehicles (EVs) should have less downtime than internal combustion engine (ICE) vehicles because they have fewer mechanical parts, minimising the likelihood of breakdown and requiring less routine maintenance.

Lorna McAtear, head of fleet at National Grid, is currently assessing the schedule for EVs and whether it is necessary for them to have a traditional annual service like a petrol or diesel vehicle.

Fleet Assist, which has a network of 5,200-strong franchised and independent garages, found labour times were 33% shorter for full EVs than ICE cars last year, based on analysis of 850,000 fleet cars and vans.

It says the most used components for full EVs were pollen filters, bulbs, key fob batteries, wipers and brake fluid.

However, when it comes to accident repair, electric vehicles can in some instances spend longer off the road when an EV battery is involved or when the high voltage system becomes associated with the repair.

The results from the Fleet200 Strategy Network survey are mixed. Fifteen per cent say that when it comes to unscheduled maintenance or repairs downtime for EVs is longer than petrol and diesel vehicles. However, almost a quarter (22%) paint a more positive picture saying downtime is shorter. Thirteen per cent say there is no difference.

With the shortage of car and van parts for all vehicle types currently affecting downtime it may be a long while before trends become clear.

