VAN ELECTRIFICATION

Understanding Barriers, Identifying Solutions

Europcar

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FOREWORD

Vans are indispensable for the UK economy, with approximately one in ten workers depending on a van for their job. However, while their economic importance is undeniable, the environmental impact of vans is problematic. Since 1990, greenhouse gas emissions from vans have surged by 63%, according to **research**.

In response to this environmental challenge, the UK government has set a target to phase out the production of new diesel and petrol vans by 2035.

Each year up until this time, manufacturers are tasked with selling greater proportions of electric vans, or face penalties, as stated in the **Zero Emission Vehicle (ZEV) Mandate**.

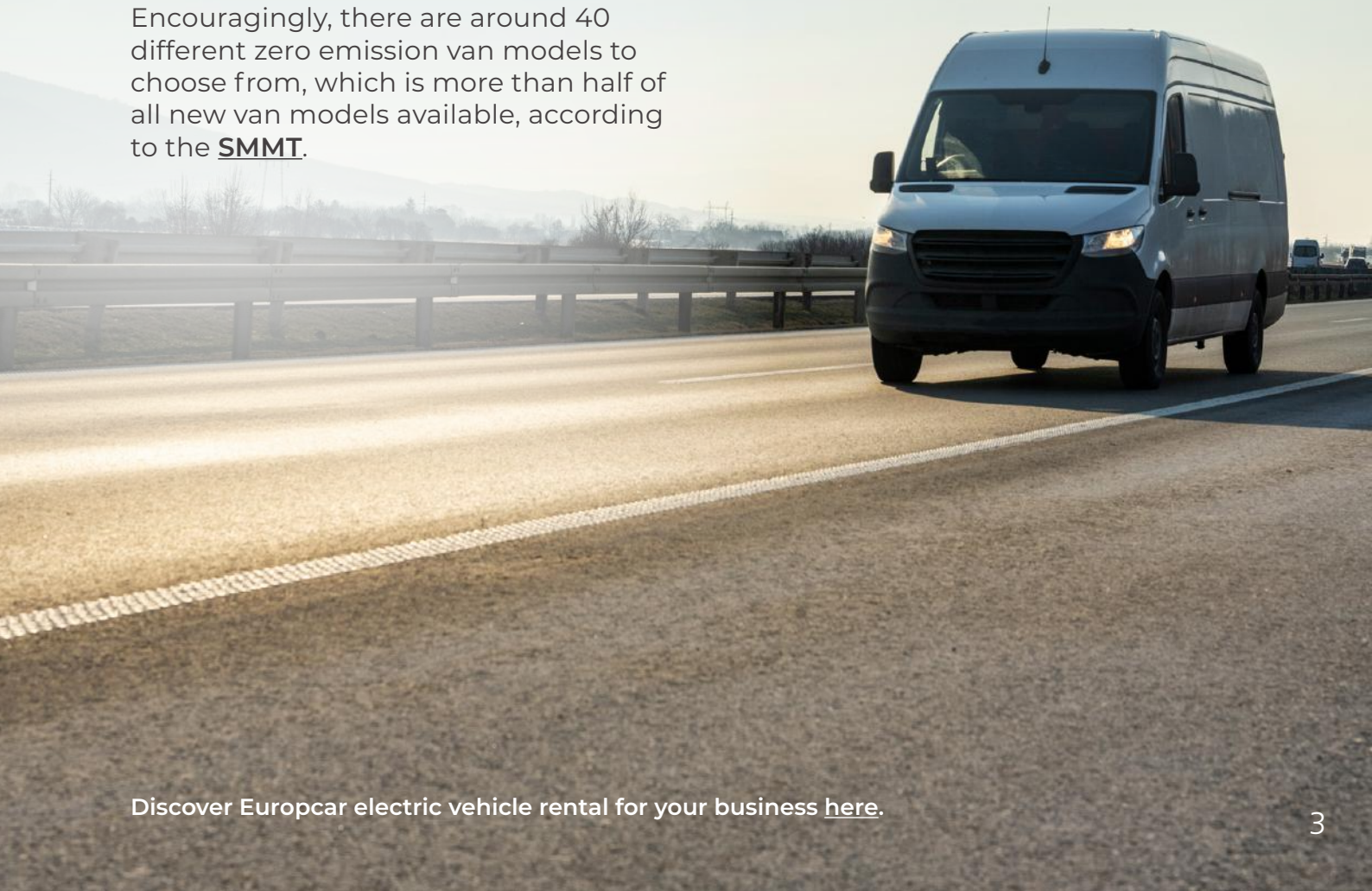
Encouragingly, there are around 40 different zero emission van models to choose from, which is more than half of all new van models available, according to the **SMMT**.

Yet in 2024, registrations of battery electric vans remained static at 2023 levels (6%) – short of the 10% stated in the ZEV Mandate for 2024.

This raises a critical question: why is van electrification progressing so slowly?

This whitepaper seeks to understand the perceived and real-world challenges faced by fleet operators when it comes to van electrification. It investigates where electric vans are working well and explores what needs to happen to encourage more van fleet operators to make the switch.

Tom Middleditch
Head of B2B Marketing
Europcar Mobility Group UK & Ireland



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THE ENVIRONMENTAL IMPERATIVE

The decarbonisation of the van sector is some years behind the car sector, but arguably even more important. The number of vans in the UK market tipped over 5 million in 2024, accounting for over 12% of vehicles on the road. And vans have a disproportionate CO2 emissions impact, being around 16% across the UK and higher in our towns and cities.

The target is for 16% of all new electric van sales in 2025 to be zero emission vehicles, primarily electric and possibly a small smattering of hydrogen as these vehicles are tested for the first time. With some 80,000 e-vans now on the road, plenty of people have already gained first-hand experience. However, there are still many more that need to discover electric commercial vehicle motoring by getting their bums on a seat!

As authors of the BVRLA **Zero Emission Van Plan**, the EV Café is committed to helping businesses gain knowledge and experience about electric motoring. Helping make the change from ICE to electric, through a mind-shift in terms of ownership and driving behaviour, is critical.

Paul Kirby,
EV Café

Challenges around vehicle suitability, charging infrastructure, and restrictive red tape are very real. While there are many great examples of fleet operators leading the way in decarbonising their fleet, there is a large group of those ready to make the switch but unable to make the practicalities work and the numbers add up.

Silver linings are emerging and constructive conversations are happening between the sector and government. Following a collection of meetings already this year, including a BVRLA hosted roundtable with the Future of Roads Minister, key decision makers are well aware of the challenges facing the van sector. While the wheels of government can be slow to turn, things move fast in fleet. Keeping those open lines of communication will remain crucial and we are fortunate to have a sector full of experts and advocates to help drive positive progress."

Toby Poston
BVRLA

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WHY IS VAN ELECTRIFICATION LAGGING BEHIND CARS?

The wide variation in van types, sizes, and usage patterns presents significant challenges for electrifying the light commercial vehicle (LCV) sector. Unlike cars, vans are typically larger, carry heavier loads, and are often in operation throughout the day. Some require onboard refrigeration for transporting perishable goods, while others – such as emergency vehicles – may carry heavy equipment that needs powering around-the-clock. These requirements place greater strain on batteries and reduce the effective range of electric vans.

In contrast, cars are generally lighter and used in more predictable ways, making them easier to electrify. As a result, electric vehicle technology has progressed more rapidly in the passenger car market. Today, there are approximately **130** battery electric car models available, compared to around **40** battery electric vans.

How will the ZEV Mandate affect van purchasing?

New vans with an internal combustion engine (ICE) will be allowed to be sold until 2035, alongside full hybrids and plug-in hybrid vans.

But each year before that, vehicle manufacturers have targets to increase the amount of electric vehicles they sell to gradually phase out their petrol and diesel vans.

In 2025, the ZEV mandate requires that 16% of new van sales be fully electric.

This will then rise to 24% in 2026, 34% in 2027, 46% in 2028, 58% in 2029 and 70% in 2030.

The Government is still finalising the targets between 2030 and 2035.

With vehicle manufacturers having to achieve these EV targets to avoid penalties, they will be pushing more electric vehicles as the years go on. Fleets may therefore find themselves in a position where the availability of diesel vans decreases and EVs are pushed and incentivised.

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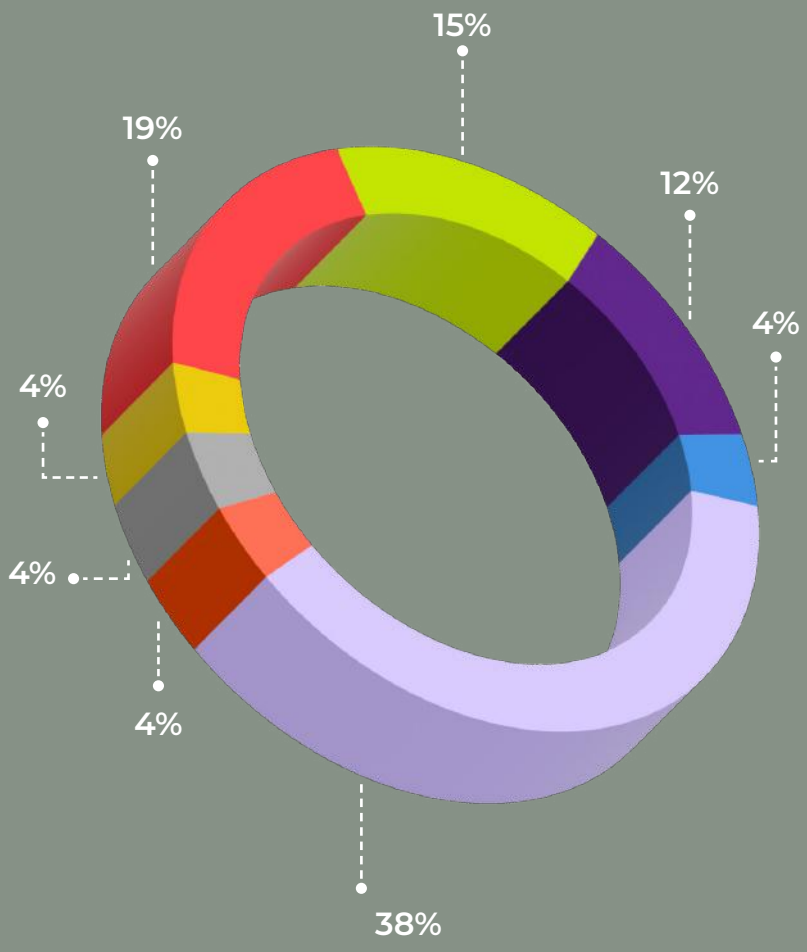
WHAT DO FLEET OPERATORS THINK ABOUT ELECTRIC VANS?

A survey of fleet operators found out their views and experiences of van electrification. *

Commissioned by Europcar, the research found that 61% of respondents said they already have electric vans on fleet, while 39% do not.

Of those that do not operate electric vans, the most common reason cited was the 'unsuitability of current electric vans', with 38% deeming them 'not fit for purpose'. The affordability of electric vans was the second biggest reason, with 15% saying they were 'expensive'. Concerns around public charging – including speed, cost and reliability - was cited by 12%. Only 4% said that drivers not being able to charge at home was a blocker.

Reasons why fleets do not have electric vans on fleet



- No available electric vans are fit for purpose (38%)
- Unsure of the technology (4%)
- Expensive (15%)
- Driver reluctance (4%)
- Public charging concerns - speed, cost, reliability (12%)
- Waiting until closer to 2030 / 2035 (4%)
- Can't charge at home or at work (4%)
- Other (4%)

* 75 fleet operators using vans were surveyed on behalf of Europcar by GreenFleet.

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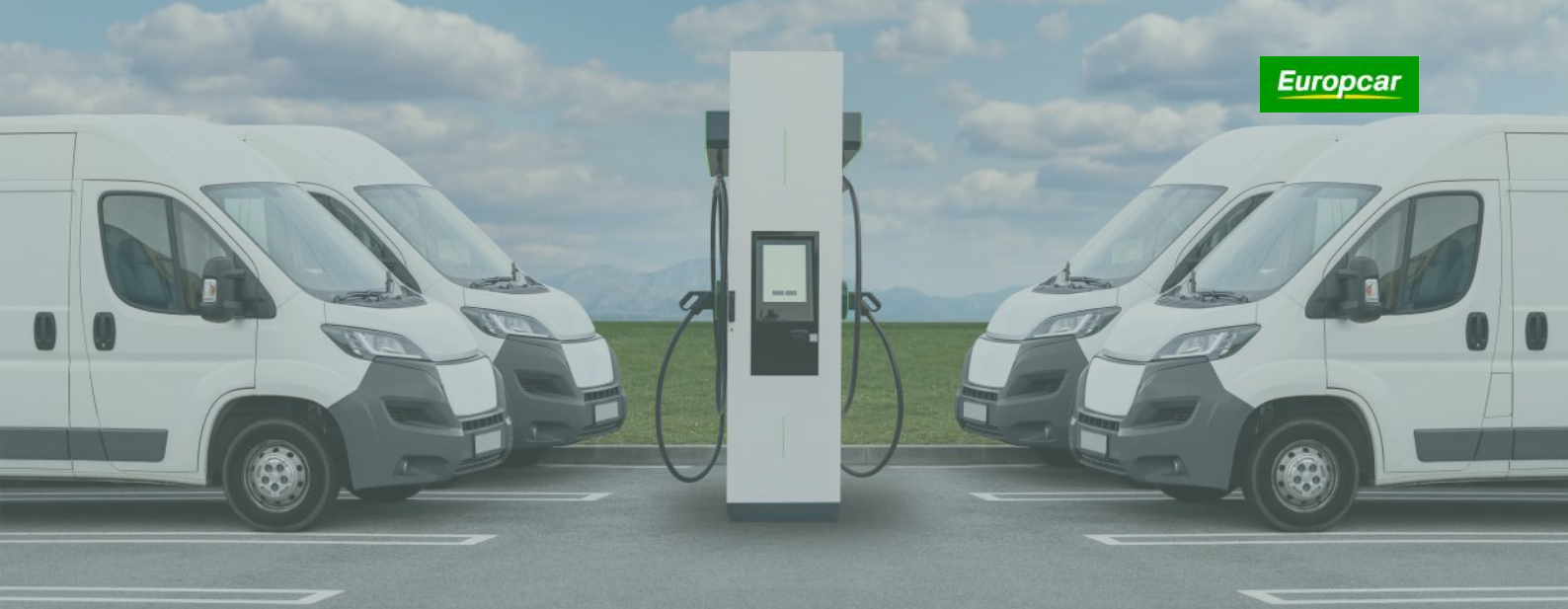
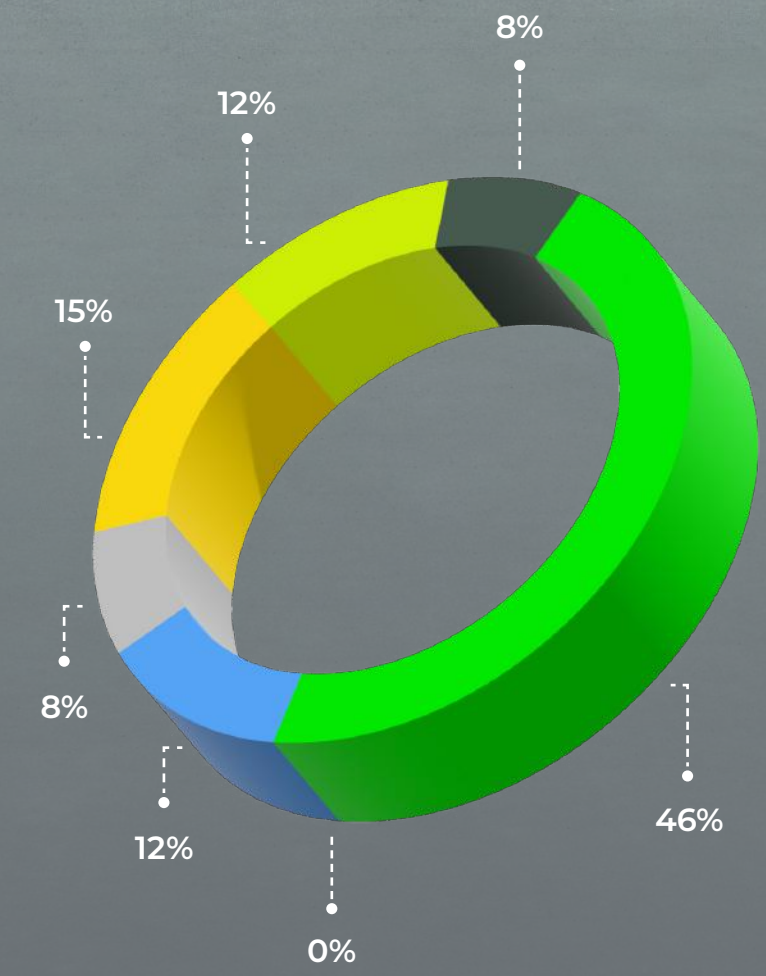


The research revealed that almost half of these fleet operators (46%) would take on electric vans if they had a longer battery range, showing that 'range anxiety' is still prevalent amongst van buyers.

Public charging that's better suited to the needs of vans would encourage 12% to adopt electric vans, while government subsidies would prompt 15% to go electric. Eight per cent meanwhile selected more choice from manufacturers as an enabler, with the same percentage wanting certainty over running costs.

What would encourage fleets with no electric vans to start the EV transition?



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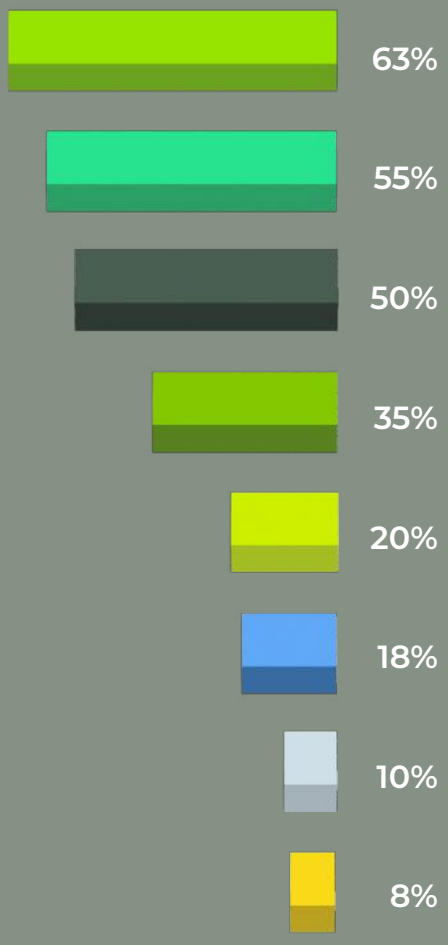
SUSTAINABILITY TARGETS THE BIGGEST DRIVER OF E-VAN ACQUISITION

For the 61% of fleet operators that do already have electric vans on fleet, meeting company sustainability targets was the most common reason, chosen by 63%. A genuine concern for the environment was selected by 55% of respondents, while 50% said that the mandated 2035 deadline was the reason for going electric.

Thirty-five per cent stated the reason for purchasing their e-vans was to enhance brand reputation, 20% said it was to operate in clean air zones, while 18% said it was because electric vans are cheaper to run and maintain.

- Meet company sustainability targets (63%)
- Genuine concern for the environment (55%)
- 2030 / 2035 zero-emission vehicle deadline (50%)
- To enhance brand reputation (35%)
- To operate in clean air zones (20%)
- Cheaper to run and maintain (18%)
- Other (10%)
- Clients or supply chain require it (8%)

Why are fleet operators choosing electric vans?



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REAL-WORLD CHALLENGES FACED BY E-VAN OPERATORS

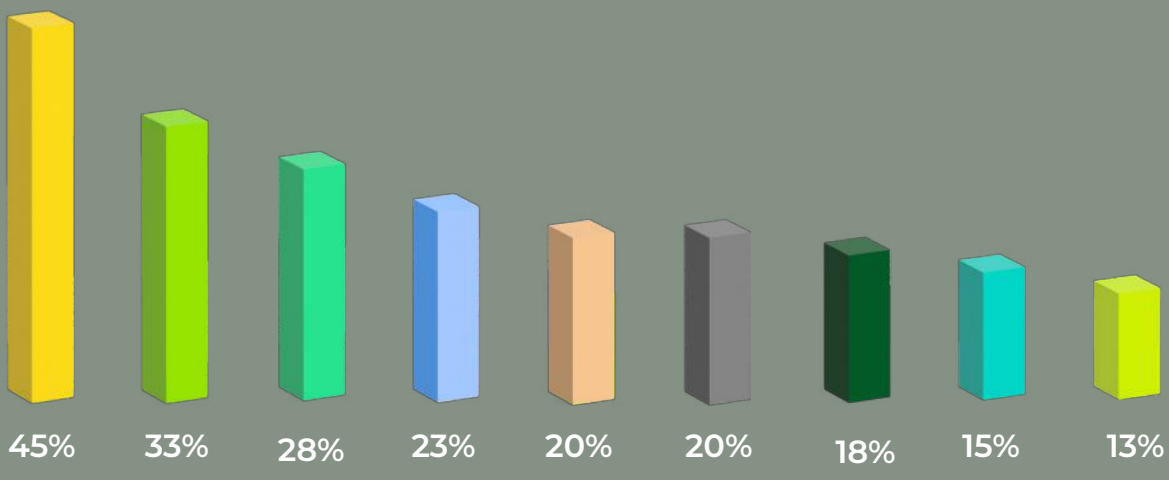
Those fleet operators already using electric vans were asked if they are experiencing any challenges. The 'real world range' of the vehicle was picked by most respondents (45%), which suggests that once the vehicle is loaded and used as required, they are not getting the stated range.

Charging concerns were also raised: 33% said that the public charging infrastructure is not suitable for vans, 28% said they spend too long charging, while 23% said that public charging is not reliable. Charging costs was another pain point chosen by 18% of survey respondents.

Positively, 20% cited that they are not experiencing any challenges operating their electric vans.

When asked what would encourage these fleet operators to adopt further electric vans, 'longer range' came up again as the most important requirement, cited by 40% of respondents. 23% stated that government subsidies would encourage more take up, while 10% believe that more choice from manufacturers would help.

Challenges faced by electric van operators



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BARRIERS TO ELECTRIC VAN ADOPTION

The research confirmed that there are still perceived and real-life barriers to electric van adoption for a number of reasons, including:

Range
Concerns remain about the real-world range and payload capacity of available electric vans. The Association of Fleet Professionals (AFP) **reports** that some fleet operators are experiencing half the quoted range in their electric van when it's fully loaded and used in cold conditions. Our own research backs up that real world range once a van is in use is an issue (cited by 45%).

Cost of vehicles and charging
Due to the price of the battery, the upfront cost of an electric van is still more expensive than a diesel equivalent. As an example, an electric Ford Transit Custom starts at around £45,000 (plus VAT). A similarly spec diesel Transit Custom costs around £35,200. That's a saving of around £10,000, or about 25% for the diesel variant.

The cost of public rapid and ultra-rapid chargers also remains high, and is in sharp contrast to charging at home.

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The **RAC** puts this down to the high charges the networks have to pay for the supply of electricity, the high installation costs of the infrastructure, and the lack of energy price caps for business-bought electricity.

What's more, drivers charging on the public network are subjected to a 20% VAT rate compared to the 5% rate for those plugging in at home.

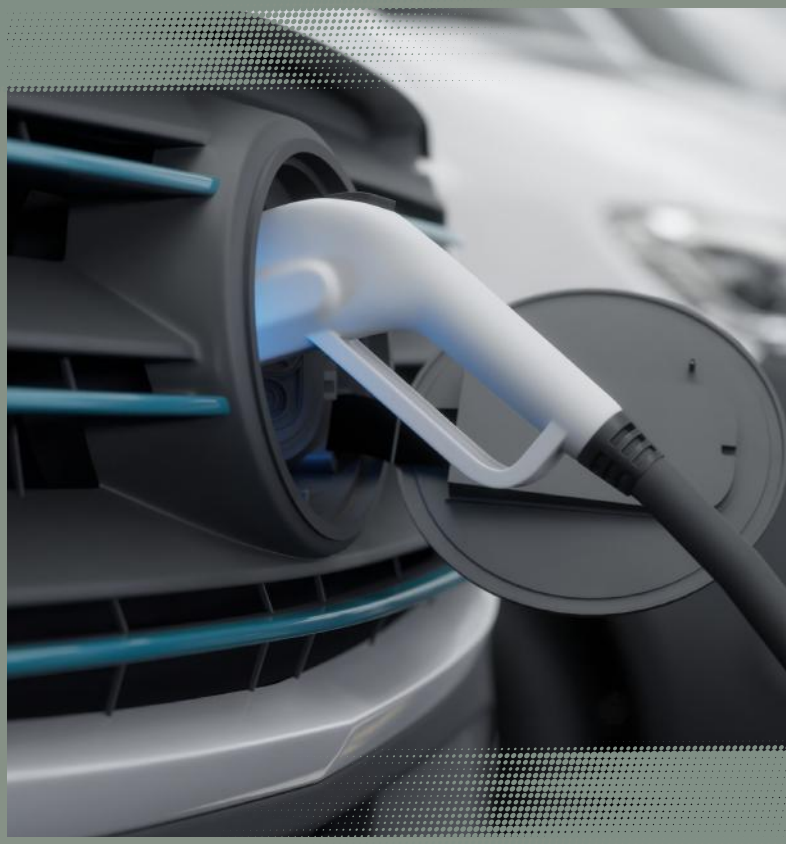
All this can make the cost of public EV charging, especially on rapid chargers, expensive.

Public charging issues
Typically geared for cars, public EV charging often has bays that are not large enough to accommodate the size, length and manoeuvring needs of vans. Cable lengths may also not be long enough.

Depending on the model, vans may take longer to charge than cars due to their larger batteries. With vans being relied on for work, the downtime spent charging needs to be kept to a minimum.

Not enough government incentives
While the plug-in Van grant has been extended for a year until 31 March 2026, and there is some financial help for installing charging infrastructure, there could be more financial help and incentives to help fleets make the switch until price parity is reached.

Cost & complexity of installing charging infrastructure
Installing depot charging can be complex, lengthy and costly, especially if the project needs a power supply upgrade, which can sometimes take **years**.



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As highlighted in the BVRLA's Zero Emission Van **Plan**, the lack of Distribution Network Operator (DNO) standardisation also creates confusion about the process and cost of infrastructure installation. Potential landlord permission, planning approval, and ongoing maintenance all adds to the complexities of installing charging infrastructure.

Evolving technology
Technology evolves fast, and EV technology is no different. Some fleets may be waiting for EV technology to mature to avoid being locked into vehicles with out-of-date technology and potentially lower battery ranges.

Residual values
The demand for used electric vans is currently low, which results in weak residual values. Given some of the challenges faced, fleets could be waiting for the range and payload capacity to improve, making some earlier van models in the second-hand market redundant. Weak residual values are causing some leasing companies to reassess their business models and potentially increase monthly lease payments to make up for any losses.

Regulatory misalignment
There is a current misalignment between the regulations for 3.5t diesel vans and 4.25t electric vans. While they are the same size, the heavier weight from the larger battery means that a 4.25 tonne electric van is treated as an HGV in terms of MOT and driver hours requirements.

A 4.25t electric van needs an MOT after the first year instead of three, which adds extra administrative burden on fleets. Some organisations have reported to the **AFP** that they have issues booking their one-year-old 4.25 tonne vans for testing due to the limited capacity for HGV tests and because many MOT test centres are not equipped to handle electric vehicles.

Work is underway to potentially change this however. The government has recently closed a consultation which looked into allowing 4.25t zero emission goods vehicles to be tested as a van and not an HGV, and to move away from the EU drivers' hours rules. The response to the consultation is yet to be published. Positively, recent government changes mean that from 10 June 2025, category B driving licence holders can now drive a zero emission van with a weight of up to 4.25 tonnes.

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WHERE DO ELECTRIC VANS WORK WELL?

The current use cases of e-vans fall into some obvious categories – largely where brands want to show their customers they're 'doing the right thing', such as in the delivery, logistics and utilities space. Royal Mail has been a flag-bearer for electric van adoption as well as making significant investment in charging infrastructure. Other brands that are walking the talk include BT Group, Amazon, G. Network, and many more.

However, there are other sectors where the adoption of electric vans makes complete business sense. Any organisation that is involved in installing, supporting and servicing green technologies is almost hide-bound to use e-vans. Central and local government also have a growing expectation for the supply chain to be decarbonising as rapidly as possible.

Indeed, many organisations are already successfully operating electric vans and enjoying a range of benefits, including reduced emissions, lower operating costs, and increased driver satisfaction. Electric vans also contribute to cleaner air, support compliance with environmental regulations, help businesses avoid clean air zone charges, and can enhance overall brand image.

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Speedy Hire is one such company that has been operating electric vans for over two years. Now standing at 220 electric vans (and nine electric HGVs), the vehicles are used to deliver tools, equipment, and plant to construction sites, often within and around large cities. The company has also installed chargers at over 20 of its sites.

Speedy's Fleet & Logistics Director Aaron Powell, who won GREENFLEET's Private Sector Fleet Manager of the Year in 2024 said: "Drivers love the electric vans, they are easy to drive and come with all the latest technology."

Highlighting that electric van driving does require a different mindset, Aaron continued: "The main challenge is on the road charging; drivers need to plan where and when they are going to charge and this is a new experience for them, as they are used to pulling into petrol stations to fuel up. We provide drivers with an EV fuel card to enable them to use the public network and we also provide a Juice booster cable which allows the drivers to charge at our depots using the 3 phase connections."

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> **When an engineer gets a new van, there tends to be the odd grumble. But with the electric vans these were very few and far between. The biggest positives from drivers are the 'one pedal' driving combined with the absence of engine noise.**

Home appliance company **Beko Europe**, which includes the Hotpoint brand, has 68 electric vans, which are used by its field engineers. Charging is mostly done at drivers' homes, with some charged on the public network.

Fleet Manager Cole Pemberton commented: "Our electric vans are used by our national field-based service engineers to get them, their tools and their stock, safely and quietly to our customers' homes."

"When an engineer gets a new van, there tends to be the odd grumble. But with the electric vans these were very few and far between. The biggest positives from drivers are the 'one pedal' driving combined with the absence of engine noise."

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WHAT NEEDS TO CHANGE?

Price parity for electric and ICE vans
Fleet operators will generally only make the switch to electric vans if it's financially viable. The ZEV Mandate will ensure that more electric models enter the market each year, which should cause prices to fall as manufacturers offer discounts and competitive pricing to generate demand.

Government funding schemes and incentives
Until electric vans are more financially viable, government incentives and subsidies should continue. Currently due to end on 31 March 2026, the **Plug-in Van Grant** should be extended for a longer period, as could government **grants for EV infrastructure**. Other incentives could include scrappage schemes whereby companies can exchange their old polluting models for new electric models, as well as reduced public charging costs for businesses.

Create van-friendly public charging infrastructure
Public charging should be made suitable for vans, in terms of the size of bays and length of cables. Van charging could also be made 'bookable' to offer further reassurances to drivers. To ensure a van-friendly charging network, any charge point operator (CPO) receiving public funds should be obligated to produce an accessibility delivery plan for van users, as well as disabled users.

Reduce VAT on public charging
Cut VAT on public charging from 20% to 5% so that it aligns with home charging. This means drivers that can't charge at home are not penalised for having to rely on the public charging network.

Help installing depot charging infrastructure
To help with the cost and complexities of installing work or depot charging, the government should ensure regulations are in place for fast-track grid connections for fleet-related projects. Reforms to planning and guidance to help fleets navigate grid connection processes should also be a priority, as called for in the BVRLA's **Zero Emission Van plan**.

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Relaxing of current regulations for 4.25t vans
There should be full regulatory alignment of 4.25 tonne zero-emission vans with diesel vans to remove some of the administrative burdens that fleets are having to deal with regarding vehicle testing and drivers' hours.

Fiscal support for the second hand electric van market
Many SMEs and sole traders rely on the second-hand van market for their vehicles. But there is currently no funding scheme to encourage the purchase of used battery electric vans, as there is for the new van market.

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THE ROLE OF RENTAL IN THE ELECTRIC VAN JOURNEY

While van electrification is still awash with uncertainties, the ability to rent electric vans for a few days, weeks, months or longer will help businesses bypass some of the challenges, especially around cost and evolving technology. It also gives fleet operators – and their drivers – the ability to see how electric vans fit in their working environment.

There are a wide variety of benefits to driving electric and the best way to understand these is to test e-vans in a real-world working environment. Being able to do this with manufacturers and dealers is often challenging, however, rental provides a fantastic 'no risk' opportunity, taking a vehicle for a limited period to learn from the experience. Rental also supports fleets through seasonal and temporary demand. **Keith Shorter, Director, Europcar Vans and Trucks**

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> **The flexibility offered by rental is enabling operators to start their transition to electric vans and understand where further rollouts could be successful. Short-term commitments work for those that need to establish viability and real-world use cases, while also helping with budgeting in a challenging economic climate.**
>
> **Strong relationships and open conversations between rental operators and their customers are helping to see where electric vans can be suitable. Many drivers still underestimate what the vehicles are capable of or where charging solutions are available.** **Toby Poston, Chief Executive, BVRLA**

No long-term commitment/penalties: Unlike leasing or buying, rental agreements come with no long-term commitment or penalties, making it easy to adapt a fleet as needs evolve.

No large upfront costs: With no large upfront costs, rentals free up capital and allows businesses to avoid tying up significant funds in depreciating assets.

No residual value concerns: Fixed monthly costs eliminate residual value concerns and make budgeting predictable and straightforward.

Not locked into outdated technology: E-van rental provides access to the latest models without the risk of being locked into technology that could soon be outdated.

The right vehicle for the job – even if it's ICE in the meantime: Rental offers the versatility to choose the right vehicle for each specific job and includes the option to use low-emission internal combustion engine vans as a transitional solution while gradually shifting towards a fully electric fleet.

Access to latest models
Rental also provides access to the latest electric van models. The Europcar electric van fleet, for example, includes popular models such as the Mercedes eVito, Vauxhall Combo Electric and Renault Kangoo eTech, with more to be added this year. Europcar has also introduced price parity on electric van rental rates for business account customers, and has invested significantly in its charging infrastructure, as well as its customer service for electric van clients.

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CONCLUSION

The research highlights that while many fleet operators are willing to adopt electric vans – and indeed many are – key barriers such as range limitations, high upfront costs, and unsuitable charging infrastructure are holding them back.

However, real-world case studies are proof that electric vans can be successfully implemented, and many organisations are enjoying the benefits of reduced emissions, running costs, driver satisfaction and improved reputation.

To overcome the challenges around van electrification, as highlighted in this whitepaper, a coordinated effort is required. Government must maintain and expand financial incentives, mandate a charging infrastructure that better accommodates vans, and address regulations that disadvantage electric LCVs. Meanwhile, rental provides a valuable solution, allowing fleets to get comfortable with electric van technology without long-term risk or commitment.

Key asks to accelerate electric van adoption:

- **Extend the Plug-in Van Grant beyond 2026**
- **Fast-track grid connections for fleet EV charging infrastructure projects**
- **Mandate a van-friendly public charging network**
- **Relax current regulations for 4.25t vans**
- **Reduce VAT on public charging**

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EV adoption is off target, not helped by the government's recent relaxation of ZEV Mandate requirements. The continued sale of new hybrid, plug-in hybrid and some categories of petrol and diesel vans until 2035 will also do nothing to improve that picture. That's why helping businesses make the change from ICE to electric, through a shift in terms of ownership and driving behaviour, is our central focus. We are 'walking the talk' in our operations, as well as providing businesses with access to low and zero tailpipe emission vehicles in a flexible and commitment-free way.

We know that fleet managers are having to balance short-term mobility needs and financial pressures with the long-term will to be ready for net zero. This is where e-van rental is already playing a critical role. It enables the trial of the new drive train before committing, as well as supporting fleets through seasonal and temporary demand.

Tom Middleditch, Head of B2B Marketing, Europcar Mobility Group UK & Ireland

Europcar's sustainability progress

Europcar has enjoyed substantial progress as an electric mobility provider and sustainable business. 14% of its fleet is now made up of battery electric or plug-in hybrid vehicles, and usage of battery electric vehicles more than doubled in 2024, reflecting the company's focus on encouraging customers to select electric vehicles.

The miles driven by its electric rental fleet for deliveries and collections, including its e-bikes and company cars, has translated to 168.7 tonnes of CO2 savings.

65% of Europcar's UK branches have onsite EV charging facilities, which is well above the national figure of 25% for all rental branches.

What's more, Europcar has a trained network of Certified Electric Vehicle Ambassadors, all of whom have driven an EV to support customers at vehicle handover.

Further details on Europcar's sustainability success can be found in its 2025 **Sustainability Report**.

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Europcar's Electric Vehicle Rental Services

Europcar is committed to helping fleets reduce their environmental impact and is helping businesses of all sizes to explore electric car and van options. Short- and long-term rental solutions offer a flexible alternative to leasing or buying vehicles.

Business customers benefit from fixed rates, no upfront costs and no early exit penalties so that they can experience EVs in real-world scenarios. And with comprehensive handovers and free resources to address common questions and misconceptions about EV motoring, businesses and their drivers can start their EV journey with confidence and ease.

A wide and growing range of electric and hybrid makes and models help organisations experience electric car and van driving in the real world which, in turn, is empowering them to switch to a greener fleet.

Helping drivers experience the best of EV technology, the range of electric vans available from Europcar includes the **Mercedes eVito, Vauxhall Combo Electric** and **Renault Kangoo eTech,** with other models coming onto fleet in the coming months. And Europcar's consultative approach means it can accelerate fleet additions for specific customer needs as required.

In addition, electric cars include the **Mercedes EQ Range, Polestar 2 and 4, Skoda Enyaq, Kia Niro** and **Jeep Avenger**, all available now for daily or long-term business hire.

To help businesses and drivers gain a better understanding of EV life, Europcar regularly updates its free digital **EV Guide and Knowledge Hub**. The beginner's guide to EVs answers the most common questions and helps drivers make sense of all the buzzwords and acronyms. It also explains how switching to an EV will help save money and reduce emissions.

Importantly, the guide covers EV incentives available and details how to charge an EV, including explaining the different types of chargers. Europcar customers hiring an EV also gain access to Zapmap through the EV Guide to ensure finding a suitable charger is quick, easy and convenient.

Discover Europcar electric vehicle rental for your business by requesting a call from our sales team **here**.

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THE EV PARTNER OF CHOICE

There is no question, the journey to reducing tailpipe emissions from motoring presents challenges for many businesses. However, Europcar has already committed significantly to change in our own operations, services and fleet. Our goal is to be the electric mobility partner of choice because we know it's the right thing to do.

We are, therefore, ready to help individuals and businesses on your transition journey. We can help you answer your questions, test and learn in the real world, and make the switch without the burden of long term commitments.

Talk to us now to find out more about how we can help you move to electric.

Europcar