Lowering van emissions and costs
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Introduction

This guide will help you operate vans in a cost-efficient, sustainable way.

It offers straightforward advice to help you choose the best vans for your needs, considering the fuel type, fuel economy, size and payload requirements, all of which influence Whole Life Costs and emissions.

The number of models and capabilities of electric vans are continually improving and could be a practical, cost-effective addition to your fleet. These vehicles produce zero tailpipe emissions and city-based fleets may especially benefit if they regularly enter charging zones, or will do in the near future, such as the London Congestion Charge Zone, the London Ultra Low Emission Zone and, Clean Air Zones.

This guide also suggests ways to improve fuel efficiency, for example by changing driving styles, and approaches to minimise mileage, for example through route planning software or telematics.

Before making any improvements, it is recommended that you establish your fleet’s current performance, including average mpg, mileage and carbon dioxide emissions. This baseline data will help you and your drivers see the results of your efforts and make the case for further investment within your organisation.

Energy Saving Trust Fleet Support

Energy Saving Trust offers a range of in-depth, impartial government-funded Fleet Reviews, available at no cost for businesses and public sector organisations in England.

Based on detailed analysis of your fleet, the reviews offer Whole Life Cost analysis and independent recommendations for improvement, along with the associated financial and carbon savings. Depending on your needs, the reviews can focus on managing mileage and fuel, adopting electric vehicles, air quality or reducing grey fleet use.
Choosing the right van

**Minimising Whole Life Costs**
Whole Life Cost analysis determines the total costs of running a vehicle through its lifetime on fleet. This may include:
- lease rate or purchase cost
- service, maintenance and repair costs
- Vehicle Excise Duty
- business fuel costs
- national insurance contributions
- Clean Air Zone or congestion zone charges.

After depreciation, fuel is the greatest cost, usually responsible for 25-35% of whole life costs. Choosing a fuel efficient vehicle can therefore significantly cut costs whilst also reducing emissions.

The type of driving the van is mostly used for will determine which fuel is best. Diesel remains a good choice for motorway and high mileage driving, especially newer Euro 6 vehicles. Petrol vehicles tend to be better suited to driving in urban areas due to issues with diesel particulate filters and air quality concerns. However, due to recent improvements in engine technology, the difference in emissions between the fuel types has narrowed.

For fleets operating mainly in urban areas, switching to electric vans can be a good choice and could result in lower Whole Life Costs.

However, fuel consumption can vary considerably depending on route (i.e. rural, city or motorway), driving style and payload.

**Downsizing opportunities**
When replacing vans, take the opportunity to review carrying capacity and payload requirements. An over-sized van will spend much of its life running well below its load capacity, resulting in unnecessarily high fuel costs and emissions.

Typically, each step up in van size within a range increases fuel consumption by 20% to 30%. In contrast, loading a van to its maximum payload increases fuel consumption by 9-10% (Energy Saving Trust research for DfT). It is therefore better to have a full, small van rather than a half-empty, large one. Try to avoid vans being used as mobile storerooms.
Consider:

- storing heavy, bulky items and rarely needed parts at base to minimise equipment being kept on the van, and review job scheduling or delivery of supplies.
- avoiding external storage such as roof racks or ladders where possible, as these cause drag at higher speeds, increasing fuel consumption.
- installing a well-designed, lightweight racking system to maximise load space – if this allows you to use a smaller van, the additional cost is quickly recovered.
- daily hire vehicles rather than a rarely-used, large vehicle, especially if large vans are only needed occasionally
- folding front passenger seats and flexible bulkheads allow the transport of long items in a smaller van. Side loading doors also make a van more adaptable.
- coachbuilding, as this could allow you to use a smaller van if it is modified to closely meet your needs of your business.

For more information, read the Energy Saving Trust guide: Interpreting weight plates for light commercial vehicles.

**eCargo bikes**

When replacing vans, you should also consider whether an alternate vehicle could better suit your needs and provide greater savings.

For some short journeys within a city centre or a short distance from a depot, a van might not be the best choice of vehicle. eCargo bikes are growing in popularity for last mile deliveries and have proved successful delivering groceries in London for Sainsbury’s¹ and as well as in cities including Amsterdam and Brisbane.

Funded by the Department for Transport, the eCargo Bike Grant Fund will cover up to 20% of the total cost of an ecargo bike, up to a maximum of £1,000 per bike. Applications opened on 1 April 2019. To be eligible, the ecargo bike must have minimum 125 litre cargo volume capacity and minimum 130kg weight capacity (combined rider and cargo weight).

**Micro vehicles (L category)**

Micro, or L category, vehicles can also provide a suitable replacement for vans in some circumstances. This category of vehicle covers a broad range of light 2, 3 or 4-wheeled vehicles, and can range from ecargo bikes over 250W, powered two-wheelers (PTW) such as mopeds, and quadricycles.

As these weigh less than conventional vehicles, they are more efficient and use less energy. Among other companies, major courier companies are pioneering the use of electric micro vehicles alongside electric vans in central London.

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Air quality & Clean Air Zones

Poor air quality is a problem in towns and cities across the UK because it has a harmful health impact, worsening asthma, affecting lung function and resulting in premature deaths.

Children, elderly people and those with pre-existing conditions are particularly vulnerable. Road transport is the main source of pollution and older diesel vans in particular emit significant levels of harmful nitrogen dioxide and particulate matter (‘soot’).

To reduce nitrogen dioxide to within legal limits, many local authorities are considering or implementing charging Clean Air Zones (CAZ) in response to ministerial directions issued by the Government to develop local air quality plans. The London Ultra Low Emission Zone (ULEZ) came into force on 8 April 2019 with Birmingham and further cities set to follow.2 The ULEZ operates 24/7, 365 days a year and covers the same area as the Congestion Charging Zone. For vehicles up to 3.5 tonnes, the ULEZ will extend to within the North and South Circular roads on 25 October 2021.

CAZs will vary in terms of which categories of vehicles are included, referred to as different ‘classes’, but the minimum vehicle standards for compliance are the same: Euro 4 petrol or Euro 6 diesel.3 You can check if your vans are compliant on the Transport for London website. Further details on other van categories can be found at Dieselnet.com. As a fleet operator or van driver, you should find out if CAZs are being implemented in your area, and if they plan to charge vans.

Following this, review your existing vehicles to understand how many are compliant, which routes they are taking and how frequently non-compliant vehicles may enter the zone(s).

Based on this analysis, you have a range of options:

- **Pay the charge/penalty** – For a vehicle frequently entering the zone, this will usually be an expensive option and also does not help to improve air quality.

- **Redistribute the vehicles or routes** – Where possible, redistribute vehicles or routes so compliant vans enter the zones. This will help improve air quality on some of the most polluted streets or ‘pollution hotspots’.

- **Lease/purchase compliant vehicles** – Factor CAZ charges in your decisions and whole-life cost analysis. You may decide to adjust replacement cycles to target non-compliant vehicles sooner. The Mayor of London has introduced a van and minibus scrappage scheme for microbusinesses and charities, and other cities may offer similar support.

- **Retrofit** – For highly specialised vans, retrofitting may be an option to reach Euro 6 compliance, if a CVRAS-approved solution can be developed. As of early 2019, no technologies have been approved for vans but this situation may change. For less-specialised vans, the cost of retrofitting is likely to be higher than the cost of replacing the vehicle.

For more information on technologies, see Clean Vehicle Retrofit Accreditation Scheme (CVRAS).

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2 The Leeds CAZ will not charge vans.

3 Typically Class III petrol vans registered after January 2006 and Class III diesel vans after September 2015.
Electric vans

Electric vehicles are inexpensive to run due to the lower cost of electricity per mile compared to diesel and petrol. Adopting electric vehicles can lead to large savings on fuel while cutting carbon and nitrogen dioxide emissions.

As detailed in The Road to Zero strategy, the Government’s ambition is to end the sale of new conventional petrol and diesel cars and vans by 2040. The target is for up to 40% of new van sales to be ultra-low emission by 2030.4

Could electric vans work for your fleet?

The first step is to identify which vehicles within your fleet can be practically and cost-effectively replaced with electric vans.

To assess the potential, firstly you need a good understanding of the daily mileages that your vehicles are undertaking. Telematics systems are likely to be able to provide useful information on average mileages and if there is a regular period of ‘downtime’ which could be an opportunity for a ‘top-up’ charge during the working day, either at base or at public chargepoints.

You can then compare average daily mileages with the range of the electric vans available. See the table on page 11 for the electric vans available in 2019, their ranges, payloads and capacities.

As of early 2019, the Nissan e-NV200 was the most popular electric van (DfT statistics) and most of the electric vans that are currently available are similar in size. However, battery technology is developing quickly and the choice of vehicles is growing and larger vans are becoming more readily available. Additional electric vans are expected to arrive on the UK market from Mercedes, VW and Ford during 2019 and 2020.

It’s worth noting that for vehicles covering very low mileages, the fuel savings are unlikely to pay back the difference in upfront costs for an electric van. On the other hand, electric vehicles carrying heavy loads or travelling at high speeds on motorways will achieve shorter ranges than the official figures. The higher the daily mileage that can be achieved with an electric van, taking into account its range capabilities and opportunities to charge, the greater the potential cost saving.

Building a business case

Electric vans can make financial sense for a business due to their lower running costs. The higher upfront costs for an electric van can be recouped via significant savings on fuel and maintenance, and discounts or exemptions from congestion and clean air zone charges. The break-even point will be reached sooner for smaller vans and those undertaking higher mileages. There are also tax incentives and government purchase grants available as explained on the next pages.

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4 From 2021, Ultra low emission vehicle will be defined as less than 50g of CO₂ per km.
Figure 1: Comparison of annual fuel spend between a diesel and electric van

<table>
<thead>
<tr>
<th></th>
<th>7,500 miles a year (approx 30 miles/day)</th>
<th>15,000 miles a year (approx 60 miles/day)</th>
<th>20,000 miles a year (approx 80 miles/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NV200 Panel Van 1.5dCi Acenta</td>
<td>£1,162</td>
<td>£2,324</td>
<td>£3,098</td>
</tr>
<tr>
<td>e-NV200 40kWh 109 Acenta</td>
<td>£427</td>
<td>£853</td>
<td>£1,137</td>
</tr>
</tbody>
</table>

Assumptions: diesel price of £1.07 (excluding VAT), electricity price of £0.1365 per kWh. 31.4 mpg (real world) for the diesel NV200, and electricity consumption of 258.90 Wh/km for the eNV200 (real world).

Fuel savings
Figure 1 compares the estimated annual spend on fuel for similar diesel and electric vans, at a range of mileages. Where a vehicle is travelling approximately 80 miles on an average working day, or 20,000 miles a year, switching from diesel to electric results in savings of over £1,961 a year, or a 63% reduction in fuel costs.

Congestion Charge Zone and Clean Air Zone charges
Electric vans are eligible for the 100% Cleaner Vehicle Discount on the London Congestion Charge, and will continue to qualify until December 2025. This represents a saving of £525 a year compared to driving a diesel van into the zone once a week for 50 weeks of the year, at a cost of £10.50 a day (autopay). The saving is £2,625 if the vehicle enters the zone five days a week.

Electric vans will also be compliant with the London Ultra Low Emission Zone and other Clean Air Zones. A non-compliant van entering the London ULEZ once a week for 52 weeks of the year would be charged £650 (£12.50 a day) and £3,250 if entering five days a week.

As the ULEZ charges are additional to the Congestion Charge, total savings are £1,175 per year when entering the zone only one day a week, and £5,875 if entering five days a week.

5 This replaced the Ultra Low Emission Discount on 8 April 2019. See TfL for more information.
6 The congestion charge does not apply between Christmas Day and New Year’s Day, public holidays or weekends. The ULEZ will operate every day.
OLEV Plug-in van grant
To reduce the purchase price of electric vans, the Government’s Office for Low Emission Vehicles (OLEV) provides a grant to pay for 20% of the purchase price for eligible vehicles, up to a maximum of £8,000. Eligible vehicles must have CO₂ emissions of less than 75g/km and be able to travel at least 10 miles without any emissions at all. For details, see gov.uk.

First year capital allowance cannot be claimed in addition to the OLEV Plug-in van grant.

Tax incentives
Electric vans are exempt from Vehicle Excise Duty, representing a saving of up to £260 compared to an equivalent diesel vehicle.

In 2018, HM Treasury held a consultation on reforming Vehicle Excise Duty to incentivise cleaner choices when purchasing a new van. One of the decisions that the Government has taken is to further develop its understanding of the impacts of WLTP on CO₂ emissions for vans, ahead of announcing the new rates and bands for introduction from April 2021.

Charging infrastructure
Typically, electric vehicles are recharged overnight. Vehicles which return to a base each evening are therefore the most straightforward to switch to electric because they can be recharged using a dedicated chargepoint installed on-site. Where vans are taken home by the driver, an electric van will only usually be practical if they have access to off-street parking and are able to install a home chargepoint, or have a public chargepoint nearby. Many local authorities are increasing the provision of on-street and rapid chargepoints.

Grants are available through the Electric Vehicle Homecharge Scheme and the Workplace Charging Scheme to reduce the costs of installing chargepoints.

Where a business wants to install multiple chargepoints, the company installing the chargepoints will check the site’s grid capacity.

It may be necessary to request a quote for an upgrade from the Distribution Network Operator (DNO). Upgrades can be expensive, but smart charging can reduce the additional capacity needed, reducing costs.

See the Energy Saving Trust guide on Chargepoint Infrastructure for Business Users.
Alternative fuels
Alternatives to petrol, diesel and pure electric vehicles (EVs) include plug-in hybrids, extended-range EVs, hydrogen fuel cell, compressed natural gas (CNG) and LPG vehicles.

The Energy Saving Trust Guide to Ultra-low emission vehicles offers definitions and more information about these options.

Ford is introducing a Ford Transit Custom plug-in hybrid model but otherwise the availability of alternatively-fuelled vehicles is limited. Several manufacturers no longer supply alternatively fuelled vehicles in the UK. As of 2019, only IVECO offer a new CNG van variant, there are no manufacturer approved LPG systems available in the UK. There is only one hydrogen van, the Kangoo ZE H2 from Arcola, but supply is very limited.

Further information is available from the Low Carbon Vehicle Partnership.

Van licencing changes for alternatively-fuelled vans
The government has changed licencing regulations to permit standard category B driving licence holders to drive 4.25-tonne alternatively-fuelled vans. This change helps to compensate for lost payload capacity due to the added weight of batteries or gas tanks.

Fleets will therefore be able to switch to alternatively-fuelled vans where the weight exceeds 3.5 tonnes without having to invest in C1 licences. Drivers who wish to take advantage of this weight increase will need to complete a minimum of five hours training. Guidance on the training requirements and certification can be found at gov.uk.
## Table 1: Electric vans available in 2019 in the UK
(all eligible for the OLEV Plug-in van grant)

<table>
<thead>
<tr>
<th>Model</th>
<th>Range (NEDC)</th>
<th>Payload (kg)</th>
<th>Load volume (m$^3$)</th>
<th>Battery size (kWh)</th>
<th>Gross vehicle weight (kg)</th>
<th>Drop side</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BD Otomotiv eTraffic</strong></td>
<td>100 miles</td>
<td>790</td>
<td>5.9m$^3$</td>
<td>53</td>
<td>3,030</td>
<td>N/A</td>
<td>Very limited supply</td>
</tr>
<tr>
<td><strong>BD Otomotiv eDucato</strong></td>
<td>124 miles</td>
<td>821-1,267</td>
<td>13-17m$^3$</td>
<td>62</td>
<td>3,500</td>
<td>Yes</td>
<td>Limited supply</td>
</tr>
<tr>
<td><strong>Citroen Berlingo Electric</strong></td>
<td>106 miles</td>
<td>636</td>
<td>L1 3.3m$^3$</td>
<td>22.5</td>
<td>L1 2,225 L2 2,180</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Mitsubishi Outlander Commercial</strong></td>
<td>Electric only: 34 miles</td>
<td>510</td>
<td>1.602m$^3$</td>
<td>13.8</td>
<td>2,390</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Nissan e-NV200</strong> (cargo van)</td>
<td>170 miles</td>
<td>705</td>
<td>4.2m$^3$</td>
<td>40</td>
<td>2,220</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Peugeot ePartner</strong></td>
<td>106 miles</td>
<td>L1 636</td>
<td>L1 3.3m$^3$</td>
<td>22.5</td>
<td>L1 2,225 L2 2,180</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Renault Kangoo ZE</strong></td>
<td>170 miles</td>
<td>625</td>
<td>4.6m$^3$</td>
<td>33</td>
<td>2,126</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Renault Master ZE</strong></td>
<td>124 miles</td>
<td>1,100</td>
<td>8-19m$^3$</td>
<td>33</td>
<td>3,100</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>LDV EV80 van</strong></td>
<td>120 miles</td>
<td>1,005</td>
<td>10.2m$^3$</td>
<td>56</td>
<td>3,500</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Mercedes eVito</strong></td>
<td>93 miles</td>
<td>1,043-1,073</td>
<td>6-6.6m$^3$</td>
<td>41</td>
<td>3,200</td>
<td>N/A</td>
<td>Expected September 2019</td>
</tr>
</tbody>
</table>
Unitmovements provides a two-man home delivery service across Wales and South West England, operating from six sites with around 180 staff and 47 vehicles.

To complement their Euro 6 Mercedes Sprinters, Unitmovements purchased two electric LDV e-80s in 2018. These have a payload of 800kg-1000kg and are approximately the same size as a standard transit van. The limited motorway driving required and the region’s narrow, rural roads mean that these vans are highly suitable.

Chargepoints were installed at their Exeter operations base, IKEA’s store home delivery depot. By 2025, IKEA will generate, consume and purchase 100% renewable energy in all its buildings. The van drivers also make use of public chargepoints. When recharging, the vans often attract positive attention and start conversations.

Charging for 45 minutes at a 50kWh chargepoint provides a range of 110 miles. This is more than enough for the delivery team to travel up to three times around Exeter and the surrounding delivery area.

An average charge costs £6 – an 82% saving on fuel per day, compared with a diesel van. While the electric vans are more expensive to purchase than their diesel counterpart7, with current fuel prices and maintenance costs, Unitmovements expects to recoup the additional investment within 12 months. Drivers have given only positive feedback about the vans.

With IKEA, Unitmovements have attended several EV launches and their internal monitoring and reporting allows them to offer detailed recommendations to others about where EVs can be integrated seamlessly without affecting the customer experience.

A joint working party is evaluating how EVs can operate in both rural and urban areas. As of early 2019, IKEA have approximately 20 EVs operated by partners. IKEA’s goal is for 20% of their entire UK home delivery fleet to be electric or alternatively-fuelled by 2020, which is felt to be ambitious and achievable with the right partners.

7 In general, smaller electric vans (i.e. e-NV200) are around 25% more expensive than a diesel equivalent, but larger electric vans can be up to two to three times more expensive, depending on the manufacturer.
Leeds City Council has invested in three Nissan Leaf cars, 93 Nissan e-NV200 vans plus awaiting delivery of two more, and over 120 chargepoints across their estate.

Two fleet reviews provided by the Energy Saving Trust, the potential financial savings and air quality concerns led Leeds City Council to analyse its entire fleet of 1,132 vehicles to identify those suitable for replacement with EVs. Key characteristics included the tasks the vehicles undertook, payloads and average daily mileages of 70-90 miles.

Most of the vehicles identified as suitable returned to depots overnight, seemingly ideal for charging purposes. However, site surveys revealed that unless expensive upgrades to the electrical grid capacity were undertaken, most sites could only accommodate chargepoints for two to four vehicles.

To overcome this hurdle, an innovative pilot scheme installed chargepoints at the homes of 10 drivers. The pilot proved successful, generating highly positive feedback from drivers and will be rolled-out to more drivers.

Leeds City Council estimated that the first batch of 41 electric vehicles will travel over 450,000 miles a year, generating fuel savings of over £13,500 per year. The investment will also save approximately 52 tonnes of CO₂ up to 2020.

A fleet replacement programme has identified that, by 2024, a further 300 vehicles could potentially be replaced with EVs depending on service delivery requirements.

Free EV van trials for businesses

In addition, Leeds City Council is joining with Highways England to offer businesses in Leeds the chance to trial electric vans and cars for a free two-month period to help them understand the benefits and how EVs might work for their business.

Highways England are investing £1.98 million, with a further £900,000 from Leeds City Council’s Clean Air Zone funding. There will be about 70 vehicles available to loan, the majority of which will be vans.

Each vehicle will be fitted with a device that provides detailed journey and charging data, helping companies understand how they’ve used the vehicle and make an informed decision about purchasing EVs for their own fleet.

The scheme will launch in summer 2019 and run for two years initially. It forms part of the council’s air quality improvement work to tackle emissions and encourage more sustainable transport ahead of the introduction of the Leeds Clean Air Zone in 2020. Highways England is aiming to reduce harmful emissions on the strategic road network.
Initiatives to support fleets to adopt electric vans

Energy Saving Trust Fleet Support
Energy Saving Trust offers a range of fully-funded Fleet Reviews, including ultra-low emission vehicle (ULEV) reviews that will identify vehicles that can be cost-effectively and practically replaced with electric vans.

Low Carbon Vehicle Partnership (LowCVP)
Established in 2003, LowCVP is a public-private partnership that exists to accelerate a shift to lower carbon vehicles and fuels. An update to their Low Emission Van guide was published in May 2019.

EV100
EV100 is a global initiative bringing together over 35 forward-looking companies committed to accelerating the transition to electric vehicles and led by The Climate Group. To join, companies are invited to make a public commitment in one or more of the following areas, with a target by 2030: integrating EVs into their owned or leased fleet, placing EV requirements in service contracts or providing chargepoints for staff and customers.

Clean Van Commitment
The Clean Van Commitment is a public commitment for fleets to switch to zero tailpipe emission vans in cities by 2028. Coordinated by Global Action Plan and supported by OLEV and Engie, the commitment helps organisations demonstrate their leadership in tackling air pollution and climate change. It also clearly demonstrates the level of demand for zero emission capable vans in the UK.

Over 20 of the UK’s largest van fleets from a range of sectors, including utilities, private sector organisations, NHS and local government have signed up and pledged to adopt nearly 2,400 zero emission vans into their fleets by 2020. By 2028, their fleets (around 18,000 vans) will be completely zero emission in cities.

Global Action Plan are seeking further signatories, including small and medium size enterprises.
Achieving better fuel economy

After selecting an appropriate, fuel-efficient vehicle for your needs, the next stage is maximising fuel economy by improving driving style and ensuring that vans are well maintained.

To compare vehicles and drivers, it is important to regularly capture information on the two major influencing factors – distance covered and volume of fuel used. This information can be used to set benchmarks and identify under-performing vehicles and drivers, enabling corrective action to be taken, including Ecodriving training or vehicle repairs.

Ecodriving

Improving your or your employees’ driving style can reduce fuel costs, accident rates and insurance premiums, reduce emissions and minimise vehicle wear and tear.

Ecodriving focuses on better anticipation to avoid unnecessary braking and acceleration, shifting up gear early and avoiding excessive speeds. Subsidised Ecodriving training is available to all businesses and organisations with car and van drivers, from approved training companies in England. On the day of training, drivers typically reduce their fuel use by an average of 15%. Training is also available in electric vehicles, focusing on familiarisation and extending range.

The benefits of training can be enhanced by reminding drivers regularly and incentivising improvements. This might be through ‘top tips’ memos, mpg league tables, a “most improved driver” award or rewards for meeting a team target.

For further information, see the Energy Saving Trust guide on Advising fuel efficient driving techniques for your fleet.

Savings from a 5% improvement in fuel efficiency

Small improvements in fuel economy can quickly add up, especially when multiplied across a fleet.

For example, a van covering 20,000 miles a year (approximately 80 miles a day), achieving on average 25 miles per gallon will consume 800 gallons of diesel each year. Assuming a diesel price of £1.29 per litre (£5.85 per gallon), this will cost around £4,680 including VAT (£3,900 excluding VAT).

With a 5% improvement to achieve 26.25 mpg, the vehicle will consume approximately 762 gallons of diesel, costing £4,457 incl. VAT (£3,714 excluding VAT).

This results in an annual cost saving per van of £223.

Across a fleet of fifteen vans, the annual saving will be £3,345 – exceeding typical training costs8.

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8 Training providers vary in their prices but many large companies charge approximately £300 per day to train two drivers in Ecodriving (i.e. each driver takes a half-day).
**Maintenance and safety**

Vehicles with under-inflated tyres or requiring maintenance will use more fuel than vehicles in a good condition. Routine checks on the condition of vehicles by drivers are also important for safety reasons. In addition, regular monitoring of mpg should help to identify problems with vehicles as unusual results will be picked up.

One of the most overlooked issues, but easy to rectify is maintaining correct tyre pressures. Four tyres underinflated by 24% (e.g. 24 rather than 32 psi) will increase fuel consumption by two per cent. Over and under inflated tyres also increase wear, reducing tyre life, and negatively affects grip and braking, reducing safety.

**Speed limiters**

Speed limiters are relatively low cost and can have a positive impact on fuel use, and therefore emissions. A van limited to 60 mph will use approximately 15% less fuel than if travelling at 70 mph. Introducing speed limiters will be most effective where drivers frequently use roads with 60 or 70 mph speed limits and if they frequently drive at, or exceed, speed limits. Speed limiters can also address reputational concerns and duty of care issues that may arise if unsafe or illegal driving continues unchallenged.

It is important to discuss with drivers the intentions behind introducing speed limiters. Although there may be scepticism initially, many drivers actually have a positive response after speed limiters are introduced as they no longer feel under pressure to reach their next destination as quickly as possible.
Managing mileage

A major way to cut cost and emissions is to reduce mileage driven. Minimising mileage essentially involves efficient routing and maximising vehicle utilisation.

Telematics systems, vehicle trackers and route/task scheduling systems, can be powerful tools in reducing mileage. Advantages include:

- real time routing and scheduling of vehicles
- elimination of unauthorised private use of vehicles, or easier separation of business and private journeys
- elimination of unnecessary detours
- identification of inefficiencies due to speeding, harsh driving and excessive idling
- accurate mileage and journey data capture.

Drivers may have concerns about introducing trackers but communicating the safety and security aspects of telematics can be helpful in changing attitudes.

For more information, see the Energy Saving Trust guide on How fleets can use driver behaviour and vehicle efficiency and the online Fleet Management Toolkit.
We’re here to help people across the UK save energy and reduce fuel bills. It’s a big task that we won’t solve alone. But by working with partners who share our goals, we believe we can make a real difference.

Underpinned by our independent status and impartial perspective, we offer a depth of energy expertise, but we’re not content to stand still. Our goal is to find new and better ways to drive change and reduce UK energy consumption.

energysavingtrust.org.uk