



Tax benefits for ultra low emission vehicles

Ultra low emission vehicles (ULEVs) are vehicles that emit less than 75g of carbon dioxide (CO₂) for every kilometre travelled. They will typically include an electric powertrain. Both private and business users of ULEVs receive a number of tax benefits.

This factsheet summarises the tax benefits currently applicable to vehicle owners, and explains the current treatment of ULEVs in each instance. It covers:

A) Applicable to all ULEV users	B) Applicable to business users only
<p>Fuel Duty - fuel duty is applied to combustible fuels, but not electricity. Plug-in electric vehicles (and hydrogen fuel cell vehicles) do not incur fuel duty for the electricity they use.</p>	<p>Taxation of company cars (CCT) - ULEVs are currently split into two bands for CCT (0-50g/km and 51-75g/km). These bands are charged at a lower rate based on their list price than vehicles in higher bands. From 2020-21, these bands will be further split based on zero-emission mileage distance.</p>
<p>Vehicle Excise Duty (VED) - there are new rates of VED for vehicles registered on or after 1 April 2017. Zero emission vehicles valued less than £40k are exempt from VED.</p>	<p>Salary sacrifice for the provision of benefit in kind - Income Tax and National Insurance tax advantages result when employee salary is reduced in exchange for the provision of a ULEV as a benefit in kind.</p>
<p>Value Added Tax (VAT) - electricity used to recharge a plug-in vehicle at home attracts only a 5% level of VAT, much lower than road fuels (20%).</p>	<p>Car Fuel Benefit Charge - as electricity is not a fuel, there is currently no fuel benefit charge for battery electric cars. However, it can apply to plug-in hybrid cars.</p>
	<p>Van Benefit Charge - in 2017-18, the van benefit charge for zero emission vans will be 20% of the main rate. This will then increase on a tapered basis, reaching parity with the main rate in April 2022.</p>
	<p>Van Fuel Benefit Charge - as electricity is not a fuel, there is currently no fuel benefit charge for electric vans.</p>
	<p>Advisory Fuel Rates (AFR) - if you have a petrol-hybrid car, you can use AFR petrol rates; if you have a diesel-hybrid car, you can use AFR diesel rates. There is no AFR equivalent for battery electric vehicles.</p>

	<u>Enhanced Capital Allowances (ECAs)</u> - businesses that purchase cars which emit less than 75g CO ₂ /km, zero emission goods vehicles, or ULEV recharging or refuelling infrastructure, are eligible for 100% first year allowance.
	<u>Approved Mileage Allowance Payment (AMAPs)</u> - electric and hybrid cars are treated in the same way as petrol and diesel cars.
	<u>Mileage Allowance Relief (MAR)</u> - electric and hybrid cars are treated in the same way as petrol and diesel cars.

A) Taxes applicable to all ULEV users

1. Fuel Duty

1.1 Fuel duty is paid on each litre of road fuel purchased (or on each kilogram in the case of gases). Fuel duty is levied on any combustible fuels released onto the UK market, but not on electricity, therefore battery electric vehicles do not pay fuel duty. Hydrogen used in a fuel cell is also exempt, although hydrogen used in an internal combustion engine is subject to fuel duty.

1.2 Table 1 sets out the current rates of fuel duty.

Table 1 - fuel duty rates in 2017-18	
Type of fuel	Rate
Petrol, diesel, biodiesel (for road use) and bioethanol	57.95 pence per litre
Liquefied petroleum gas (LPG)	31.61 pence per kg
Natural gas used as fuel in vehicles, e.g. biogas	24.70 pence per kg

2. Vehicle Excise Duty (VED)

2.1 VED is a tax applicable to all vehicles driving on UK roads. For cars first registered on or after 1 March 2001 the rate is based upon the car's CO₂ emissions, with one rate payable in the first year (FYR), and then a standard rate (SR) payable in all subsequent years (Table 2).

2.2 Zero emission vehicles are exempt from paying VED. All cars registered before 1 April 2017 that emit less than 100g CO₂/km have a zero rate of VED. Cars that are not solely powered by petrol/diesel are classified as alternative fuel vehicles.

Table 2 - VED rates for cars registered on or after 1 March but before April 2017

CO ₂ emissions (g/km)	Standard rate Tax year 2017 to 2018 (£)	Standard rate Tax year 2018 to 2019
Up to 100	0	0
101-110	20	20
111-120	30	30
121-130	115	120
131-140	135	140
141-150	150	155
151-165	190	195
166-175	220	230
176-185	240	250
186-200	280	290
201-225	305	315
226-255	520	540
Over 256	535	555

- 2.3** For cars first registered from 1 April 2017 onwards, a new VED regime applies. The FYR retains a link to the vehicle's CO₂ emissions. A flat SR of £140 applies in all subsequent years, except for zero emission cars for which the SR will be £0 (Table 3).
- 2.4** From 1 April 2018, the FYR will increase for cars emitting more than 75g CO₂/km. At the same time, a higher rate for diesel vehicles will be introduced (Table 4).
- 2.5** All cars (including zero emission cars) with a list price above £40,000 also attract a supplement of £310 in addition to the SR for the first 5 years in which the SR is paid. The government announced at Autumn Budget 2017 that zero-emission capable taxis will be exempted from this supplement from April 2019.
- 2.6** All cars first registered before 1 April 2017 remain in the previous VED system.

Table 3 - VED rates for cars registered from 1 April 2017 - 31 March 2018

CO ₂ emissions (g/km)	First Year Rate (£)	Standard Rate (£)*
0	0	0
1-50	10	140
51-75	25	140
76-90	100	140
91-100	120	140
101-110	140	140
111-130	160	140
131-150	200	140
151-170	500	140
171-190	800	140
191-225	1200	140
226-255	1700	140
Over 256	2000	140

* cars costing over £40,000 pay additional £310 supplement for first 5 years

Table 4 - VED rates for cars registered from 1 April 2018

CO ₂ emissions (g/km)	First Year Rate (£)	First Year Rate for diesel vehicles (£)	Standard Rate (£)*
0	0	0	0
1-50	10	25	140
51-75	25	105	140
76-90	105	125	140
91-100	125	145	140
101-110	145	165	140
111-130	165	205	140
131-150	205	515	140

151-170	515	830	140
171-190	830	1240	140
191-225	1240	1760	140
226-255	1760	2070	140
Over 256	2070	2070	140
	* cars costing over £40,000 pay additional £310 supplement for the first 5 years		

3. Value Added Tax (VAT)

- 3.1** VAT is a consumption tax that applies to the price of vehicles, their fuels and electricity. Vehicles are subject to the standard rate of VAT (20%) regardless of their CO₂ emissions.
- 3.2** Motorists are able to receive a grant towards the cost of a qualifying ULEV, through the Plug-in Car Grant and Plug-in Van Grant. This is a payment against the full purchase price of the basic vehicle including number plates, vehicle excise duty, and VAT, but excluding any optional extras, delivery charges and first registration fee. The grant payment is applied on the customer invoice below the VAT line.¹
- 3.3** Alongside petrol and diesel, hydrogen used as fuel attracts the standard rate of VAT (20%).
- 3.4** Electricity has varying VAT treatment. Electricity that is supplied for domestic, non-business and charity use attracts reduced rate (5%) VAT, while electricity that is supplied for business use is subject to standard rate VAT (20%).
- 3.5** Electricity that is used to recharge an electric vehicle at home therefore attracts the reduced rate of VAT (5%). Electric vehicles that are recharged at work will attract 20% VAT on the electricity used.

B) Taxes that are applicable to business users only

4. Taxation of company cars (CCT)

- 4.1** The provision of a company car that is available for the employee's private use is treated as a benefit in kind (BIK).² This is known as company car tax (or car benefit charge). As such, it is subject to Income Tax (for the employee) and employer Class 1A National Insurance Contributions.

¹ Since March 1 2016, two grant rates are available under the Plug in Car Grant: 'Category 1' cars receive a grant of £4,500; 'Category 2 and 3' cars receive £2,500. More information on the Plug-in Car and Van Grants can be found at www.gov.uk/plug-in-car-van-grants.

² Employees may receive non-cash benefits from their employer. These are called benefits in kind, and may be taxable.

- 4.2** The benefit is valued as an ‘appropriate percentage’ of the car’s total list price (manufacturer’s list price when new plus any accessories - the value reportable on a P11D form). The appropriate percentage is dependent upon the car’s CO₂ emissions (see Table 5 below). The emissions figure can be found on the car’s registration document (V5C).
- 4.3** There is currently a 3 point supplement for diesel cars which is added to the appropriate percentage. From April 2018, this diesel supplement will be increased by 1 percentage point to 4%. However, cars that meet the RDE2 standard (also known as "Euro 6d" standard) will be exempt from the diesel supplement.
- 4.4** A calculator is available at www.hmrc.gov.uk/calcs/cars and rates for ULEVs are shown in Table 5 below.

Table 5 - Company car tax rates					
CO₂ emissions (g/km)	Zero emission mileage	2017/18	2018/19	2019/20	2020/21
0		9	13	16	2
1-50	>130	9	13	16	2
1-50	70-129	9	13	16	5
1-50	40-69	9	13	16	8
1-50	30-39	9	13	16	12
1-50	<30	9	13	16	14
51-54		13	16	19	15
55-59		13	16	19	16
60-64		13	16	19	17
65-69		13	16	19	18
70-74		13	16	19	19
75-79		17	19	22	20

- 4.5** Above 94g CO₂/km (above 79g CO₂/km in 2020/21), the appropriate percentage continues to increase by 1 percentage point for each increase of 5g CO₂/km, to a maximum of 37%.
- 4.6** For plug-in hybrid or battery electric company cars, the list price of the vehicle must always include the cost of the battery, whether or not it is leased separately. If an employer leases a battery for an employee’s company car, there is a taxable benefit, which would normally be based on the cost to the employer.
- 4.7** Ultra low emission vans are not affected by CCT because they are subject to van benefit charge (see section 7).

5. Salary sacrifice for the provision of benefit in kind

- 5.1** ULEVs are eligible for tax benefits if purchased through a salary sacrifice agreement made between an employer and employee, where the employee's cash remuneration is reduced in exchange for an equivalent BIK (as explained in Section 4). Due to the reduction in pay, this results in a reduced income tax liability for the employee and reduced national insurance liability for both parties.
- 5.2** Due to their wider societal benefits, ULEVs were exempted from the reforms announced in the Autumn Statement 2016 to remove the income tax and employer NICs advantages resulting from such schemes, whereby the taxable value of the BIKs provided through salary sacrifice is fixed at the higher of the amount of cash forgone or the amount calculated under the existing BIK rules.

6. Car Fuel Benefit Charge

- 6.1** Car fuel benefit charge is paid by employees who receive free fuel from their employer and a portion of it is used for private mileage in a company car and not repaid in full by the employee. Tax must be paid on the cash equivalent of the BIK represented by that fuel.
- 6.2** The value of this benefit is calculated by using the CCT appropriate percentage of the vehicle multiplied by a 'fuel benefit charge multiplier': £22,600 for 2017-18 (£23,400 for 2018-19). As with CCT, the employee then pays Income Tax and the employer pays National Insurance Contributions on this amount.
- 6.3** There is no car fuel benefit charge if employees repay the cost of their private mileage in full. They may use the rates published by HMRC – the advisory fuel rates (AFRs) – to do so.³
- 6.4** As electricity is not a road fuel, the car fuel benefit charge does not apply to electric charging. If an employee uses a company car, no BIK arises on charging their vehicle at the workplace.
- 6.5** If an employer provides electricity to an employee to charge their own car, a BIK arises representing the cost of the electricity used, which must be reported to HMRC. The government announced at Autumn Budget 2017 that employer-provided electricity, provided from workplace charging points for charging electric cars, will be exempt from being taxed as a BIK from April 2018.
- 6.6** The provision by an employer of a chargepoint for an employee at their home also gives rise to a BIK.
- 6.7** An online tool for calculating whether tax is due in relation to the charging of an electric car is available here: www.gov.uk/expenses-and-benefits-electric-company-cars. The government recognises that this is a developing area and keeps the tax rules under review at fiscal events to

³ www.hmrc.gov.uk/cars/advisory_fuel_current.htm

ensure that they remain effective in promoting take up of cleaner cars but are also consistent with the government's wider fiscal objectives.

7. Van Benefit Charge

- 7.1** Van benefit charge is levied when an employer provides an employee with a van for private use. The charge is set at a flat rate: £3,230 in 2017-18 (for 2018-19, the charge will be £3,350). The employee pays Income Tax on this amount and the employer pays National Insurance Contributions. The charge does not apply if the private use of the van is only ordinary commuting in and out of work or is otherwise incidental.
- 7.2** Zero emission vans are currently only liable for a proportion of the full van benefit charge. The government announced at Budget 2016 that this proportion would be frozen at 20% for 2016-17 and 2017-18. This will then increase on a tapered basis reaching parity with the main rate in April 2022. The government will review the impact of this incentive at Budget 2018.

8. Van Fuel Benefit Charge

- 8.1** If an employer gives an employee a van to use which is subject to the van benefit charge and pays for their fuel, the employee will need to pay a fuel benefit charge. Van fuel benefit charge is set at a flat rate, £610 in 2017-18. For 2018-19, the charge will be £633.
- 8.2** As above, electricity is not treated as a fuel, so it is not subject to the van fuel benefit charge. This means that if an employer allows an employee with a company van to recharge at work, this does not fall under van fuel benefit charge, but as with a car, until April 2018 a BIK will arise in relation to the electricity used to charge a privately owned van.

9. Advisory Fuel Rates (AFRs)

- 9.1** AFRs provide a pence per mile rate, which an employee can use to reimburse their employer for the cost of private mileage where an employer provides free fuel for a company car.
- 9.2** They may also be used to reimburse employees for business mileage when the employee buys the fuel for their company car. If an employer chooses to reimburse an employee with a company car for fuel used for business, this is not considered to be a taxable benefit.
- 9.3** AFRs are not mandatory, but allow employers to use an average figure depending on engine size and fuel type rather than having to keep detailed records for each vehicle.
- 9.4** Employers are free to use the actual cost of fuel if they wish. But they will need to keep records to demonstrate how they have arrived at the

calculation and may not use an averaging method over a number of cars. The latest rates are available on the HMRC website.⁴

- 9.5** If you have a petrol-hybrid car, you can use AFR petrol rates. If you have a diesel-hybrid car, you can use AFR diesel rates.
- 9.6** As electricity is not considered to be a fuel for the purposes of car fuel benefit legislation, AFRs do not apply to battery electric cars.

10. Enhanced Capital Allowances (ECAs)

- 10.1** An ECA allows a business to write off the whole cost of an asset against taxable profits in the year of purchase. ECAs are available for certain energy and water efficient technologies.
- 10.2** ECAs for cars are based on their CO₂ emissions. In 2017-18, cars purchased from 1 April 2013 with CO₂:
- Of 75 g/km or less qualify for a 100% First Year Allowance (FYA). This allowance only applies to new cars. Cars that are leased also do not qualify;
 - Up to 130g/km qualify for a writing down allowance at 18% a year;
 - Over 130g/km qualify for a lower "special rate pool" writing down allowance of 8% a year.
- 10.3** The government announced at Budget 2016 that it will extend the 100% FYA for low emission cars for a further three years to April 2021. From April 2018 the CO₂ threshold below which cars are eligible for the FYA will be reduced from 75 g/km to 50 g/km. The threshold for the main rate for the writing down allowance will also reduce, from 130 g/km to 110 g/km. The government will review the case for the FYA and the appropriate emission thresholds from 2021 at Budget 2019.
- 10.4** Table 6 below details the allowances available for cars based on their CO₂ emissions.

⁴ www.hmrc.gov.uk/cars/advisory_fuel_current.htm

Table 6 - Cars and writing down allowances

	2017-18	2018-19	2019-20	2020-21
First Year Allowance (100%). Does not apply to used cars	75g or less	50g or less	50g or less	50g or less
Write Down Allowance (18%). For new cars see FYA above.	Up to and including 130g	Up to and including 110g	Up to and including 110g	Up to and including 110g
Write Down Allowance (8%).	Over 130g	Over 110g	Over 110g	Over 110g

- 10.5** A 100% FYA is available for zero emission goods vehicles. Vans are not eligible for both the Plug-in Van Grant and the FYA.
- 10.6** A 100% FYA is also available for businesses that install gas refuelling equipment for vehicles that require natural gas, hydrogen or biogas.
- 10.7** Eligible equipment can include:
- storage tanks
 - compressors
 - controls and meters
 - gas connections
 - filling equipment
- 10.8** It was announced at Autumn Budget 2017 that the FYA for both zero emission goods vehicles and gas refuelling equipment will be extended to March/April 2021.
- 10.9** A 100% FYA is available for the installation of electric vehicle charging infrastructure. This FYA was announced at the Autumn Statement 2016, and took effect for expenditure incurred on or after 23 November 2016. The measure will expire on 31 March 2019 for Corporation Tax and 5 April 2019 for Income Tax purposes.

11. Approved Mileage Allowance Payment (AMAPs)

- 11.1** AMAPs are applied to employee-owned vehicles that are used for business mileage, providing the pence per mile rate at which HMRC allows employers to reimburse their employees, without liability to Income Tax or National Insurance Contributions. If reimbursements in excess of the AMAPs rates are made, the excess is reportable to HMRC.
- 11.2** Unlike AFRs, electric and hybrid cars are treated in the same way as petrol and diesel cars for the purposes of AMAPs. The latest rates can be found on the HMRC website.⁵
- 11.3** Self-employed taxpayers may also use authorised mileage rates to compute their vehicle expenses. If they claim mileage rates they cannot claim capital allowances or actual running costs. If they have previously claimed capital allowances in respect of a vehicle then they cannot use mileage rates for that vehicle.

12. Mileage Allowance Relief (MAR)

- 12.1** If an employer does not fully reimburse an employee for the cost of business mileage in the employee's own car in accordance with the AMAP rules, that employee is entitled to apply to receive MAR on the remainder of this amount.
- 12.2** For the purposes of MAR electric and hybrid cars are treated in the same way as petrol and diesel, and employees with electric cars are entitled to apply for MAR if they are not benefitting from full AMAPs.

⁵ www.gov.uk/expenses-and-benefits-business-travel-mileage/rules-for-tax