

ELECTRIFYING^{COM}

THE COMPLETE

GUIDE TO GOING ELECTRIC

EVERYTHING
YOU NEED
TO KNOW
FROM THE
EV EXPERTS™



IS ELECTRIC RIGHT FOR ME? + HOW TO CHARGE YOUR CAR
OWNING TIPS + SALARY SACRIFICE + EV MYTHS DEBUNKED

ADVERTISEMENT FEATURE

Welcome

At Electrifying.com we're proud to be the electric car experts. But that wasn't always the case and despite the fact that I've driven hundreds of different cars over the years, making the switch from an internal combustion engine car to electric still took quite a bit of getting used to.

But I'm now hooked on electric cars (even though I made a few mistakes along the way!) and it's great to share the knowledge the whole Electrifying.com team has picked up about them in our handy **Guide to Going Electric**.

Why do we need one? Well, although electric cars are incredibly simple to drive and own, they do require a change of mind-set – especially for those of us who are switching after decades of driving petrol and diesel cars. There's new terminology to get to grips with along with a new approach to 'refuelling'. Thankfully, it's all easy to master, and as the number of electric cars on our roads continues to rise, making the switch to electric is easier than ever.

I hope the following pages help clear the air, but if you have any questions about electric cars then feel free to send them over to us on social media (the links are on the back page of this guide) or through the website and we'll do our best to answer them.

Ginny Buckley
Founder and CEO – [Electrifying.com](https://www.electrifying.com)

CONTENTS

Is an electric car right for me?	03
Five things you need to know about buying and electric car	04
Electric car jargon-buster	06
How to recharge an electric car	08
What is salary sacrifice?	10
What is an electric car like to drive?	12
Electric car myth-busting	14



Want to keep up to date with the latest electric car news and advice? [Click here to sign up to our free weekly newsletter](#)



Is an electric car right for me?

Making the switch to electric is easy, but you'll need to ask yourself a few questions to ensure that now is the right time to do it

Much as we love electric cars at Electrifying.com, we know that making the switch is easier for some drivers than others. That's why we advise anyone considering going electric to have a quick look at the sums to see if they can easily make the switch.

Firstly, you'll need to do some maths. Have a look at how you actually use your car, the kinds of miles you do regularly, and your lifestyle – they all have an impact on which car you should buy.

Tot up what you'd usually spend on fuel, road tax, servicing and the usual stuff like insurance, then compare it to the running costs of an electric equivalent.

Included in that should be any tax incentives (such as Benefit in Kind if you have a company car) and the cheapest domestic energy supplies.

If you're only doing a big trip of 150 miles or more once or twice a year, for example, you might not really need a car with a big battery. That means

you can save some money on the purchase price and improve efficiency. You might need to top up for half an hour on the odd big trip, but it really isn't that much hassle and will be worth the savings.

The thought of charging concerns a lot of people, but it really isn't that difficult. If you can have a home wallbox, that's the easiest – and cheapest – way to charge. You wake up to a full 'tank' every day if you want and never have to visit a petrol station again.

But all is not lost if you can't charge at home. The average daily driving distance is just 19 miles, so if you choose a car with a real-world driving range of 200 miles, you will only need to charge at a public charger once a week.

And even if you have to make longer journeys, you soon get used to using public stations and rapid chargers at motorway service stations and other places like supermarkets and restaurants. Smartphone apps like Octopus Electroverse and ZapMap give you live information on where the nearest chargers are, and they'll even tell you if they're being used.

We know it sounds a little bit complicated. But once you properly try an electric car, very few people want to switch back! They're quick, quiet, efficient and good for your wallet as well as the environment. Doing a bit of research before you make the switch will make all the difference to your electric car journey.

“ Even if you have to make longer journeys, you soon get used to using public stations and rapid chargers.”

Nicola loves her electric car so much, she often carries her charging cable around to introduce it to strangers



5 things you need to know before buying an electric car

If you're considering going electric with your next car, you've probably got a few questions. Are we right? Thought so. Here at Electrifying.com, we're answering questions all the time: from the complicated ones about how much money you could save, to the more surprising ones about whether you can drive an electric car in the rain. Yes, we really do get asked that.

Much as we like answering questions, we also like to stay one step ahead. The Electrifying.com team has been driving electric cars for years now, and during that time we've learned a lot. So if you're planning to go electric any time soon, do not click away because these are the FIVE things you need to know BEFORE you buy an electric car

Ginny's tip

"Of all the confusing things out there, I think charging speeds are the biggest issue. Just remember that your car limits the speed at which it can charge, so don't get frustrated when you don't achieve the speeds on the charger."



1 Do your maths

Before you get into the nice parts of ordering a car like choosing the colour and what options you might go for you really need to do your sums first. Yes, we know it sounds boring and about as much fun as sorting your home insurance, but it's really, really important to get on top of your numbers.

First up, work out how many miles you do in a week. You don't need to be ultra precise – we won't be checking. Use the [range calculator](#) on the Electrifying.com site if you're struggling. This figure is important, because it will tell you whether a pure electric car is right for you. The average mileage in the UK is less than 20 miles a day or 140 miles a week. If that sounds like you, then bingo – an electric car is going to be perfect for you. In fact, even if you did six times the UK average, you'd still be perfectly suited to an electric car.

If you've done those sums and you're regularly doing more than a thousand miles a week, then you might be better off choosing a plug-in hybrid which can be better suited to high mileage drivers.

2 Calculate the TOTAL cost, or TCO

Don't put that calculator away just yet. But we're nearly done – we promise. You may have heard a term that often comes up when people discuss electric cars: Total Cost of Ownership or TCO as those people who like to talk in code like to call it.

As you will almost certainly have noticed, electric cars usually cost more to buy than the equivalent petrol or diesel cars. The gap is coming down all the time as batteries become cheaper to produce, but right now, you'll still pay more to go electric.

Or will you? That's where total cost of ownership comes in. Because owning a car is more than just the price you pay either outright or every month. The monthly cost of running ANY car includes fuel, road tax and other things like maintenance. If you're driving a company car, you'll also need to add Benefit in Kind tax to your totals too.

By choosing electric, those 'other' costs are usually a lot less. If you're able to charge at home on cheap-rate electricity, you'll be able to fill a car like a Škoda Elroq SE 50* for under a fiver.

Maintenance? Well, you won't be shelling out for a new exhaust or clutch after a few years because electric cars don't have them. Electric cars have far fewer moving parts than an internal combustion engine car, so there's less to look after.

And there's even better news if you have an electric car as a company car. Currently, you'll pay just 2% benefit in kind tax on a fully electric car – which could save you thousands of pounds over the course of a year.



3 You REALLY don't need to worry about your battery lasting

One of the questions we get asked on a regular basis here at [Electrifying.com](https://www.electrifying.com) is 'Do I need to worry about how long the battery will last?' Well, the simple answer is no, you really don't need to worry.

That's because electric car batteries are designed to last the lifetime of the car and actually lead a very stress-free life. Most electric cars have a heater to keep it warm in cold weather and a cooling system to keep it cool when it gets hot. All electric cars have what's called a battery management system (BMS) that prevents the likes of you and me doing anything to risk its health. And if you're still concerned, battery packs on all electric cars have much longer warranties than the rest of the car.

For example, Škoda's high voltage batteries come with a warranty to ensure that they retain 70% capacity within the first eight years of ownership or 100,000 miles.

4 Work out your charging

We'd all admit that the subject of charging can be a little confusing at first. There are different speeds, different connectors and a whole new bunch of acronyms to get your head around. But trust us, it's all simpler than it sounds and you'll be up and running in no time.

Let's cover off the basics. If you're able to charge at home, we recommend that you have a proper charger fitted (check out our [reviews](#) to find the best on the market). Yes, you can technically charge an electric car from a three-pin plug, but it will take a very long time and you'll need to make sure that the socket you plug in to is up to the task.

A charger has to be fitted by a qualified electrician and is wired directly to your incoming supply for safety. It will take a bit of time to get one ordered and fitted, so make sure you get the ball rolling as soon as you've made the decision to buy the car.

You should also look into switching to a specific [electric car energy tariff](#). These are only open to electric car owners, but they give you cheap-rate electricity for a few hours every night.

5 Don't be scared by the idea of public charging

If you don't have off-street parking or can't get a home charger fitted, don't worry because there are plenty of other options. Public charging has advanced in leaps and bounds over the last few years and while there's still room for improvement, the situation across the country is pretty good. There are two kinds of public chargers, destination chargers where you'll need to be plugged in for a few hours to fill up, or rapid chargers where you can top up in minutes.

Destination chargers tend to be in places where you'll leave your car for a longer period of time such as gyms, offices and stations. Rapid chargers are usually on major routes and are a bit like the petrol stations of the electric world.

Unlike a petrol or a diesel car where you fill up at the same speed, things are a little different when it comes to electric. All electric cars have a maximum charging speed and all rapid chargers have a maximum output. Both are measured in kilowatts (kW).

The trick to minimising the time you spend charging is to find a charger that can make the most of your car's charging speed. Let's put some figures on this. If your electric car can charge at a maximum rate of 100kW and you plug in to a 50kW charger, you'll charge at a slower rate than you would if you were connected to a 100kW unit. Don't worry if the charger has a higher output than your car, it will only draw as much power as the battery allows. It's also worth noting that charging speeds will vary according to the amount of charge already in your battery (known as state of charge, or SoC) and the temperature of the battery pack. A cold or already partially charged battery will often charge at a slightly lower speed initially.

How do you know which chargers charge at what speeds in advance? The good news is that you can do it from the comfort of your sofa. There are a number of smartphone apps that will show you where the chargers are, what speed they are and also if they're being used. Some of the best ones used by the team are Octopus Electroverse, Zap-Map, WattsUp and PlugShare. They are free to download and use and could save you a lot of time. You can also check out pricing and information about the UK's biggest network providers on our [Charging Away from Home](#) pages on [Electrifying.com](https://www.electrifying.com).



Electric car Jargon-Buster

The car industry is famous for its love of acronyms and baffling jargon. We're here to cut through the nonsense

Range Anxiety

This is the fear that you will run out of battery power before reaching your destination or a charger. It's an often unfounded state of mind and while understandable there's no need to panic. In most electric cars, the range is pretty accurate and achievable and most electric cars have built-in sat nav or an app, which will direct you to the nearest charge point before you get in trouble. You'll soon get to know your electric car's capabilities, stop staring at the range meter and start to relax into ownership.



Tethered or untethered

When you choose a home charger, the unit you opt for is likely to come in two forms: tethered and untethered. This refers to the cable and how it connects to the charger unit. A tethered connection means that the cable is hard-wired to the charger. An untethered connection means that your charger is fitted with a socket into which you can connect your own cable. There's no right or wrong solution – a tethered connection will be pricier and means that you have a cable to store by the charger. An untethered connection will be neater but you'll need to get your cable out of the car and pack it away every time you charge your car.



Preconditioning

One of the joys of electric car ownership is getting into a warm car in winter and a chilled car in summer. Preconditioning allows you to set a departure time for your car. The car will then prepare itself for your chosen time by heating or cooling the cabin to your chosen temperature. Some cars will also heat the steering wheel and seats in readiness for your arrival. Preconditioning on some cars also gently warms the battery pack to ensure that it's at the optimum temperature to deliver its energy to the motors. Settings can be entered via the car or by a connected app.



Gross vs net battery sizes

This one is infuriating. Car manufacturers often quote two figures for battery sizes. This is because a certain amount of a battery's capacity isn't used to power the car. The only figure you should be interested in is the usable, or net, figure. For example, a Škoda Enyaq 85 has an 82kWh battery, of which 77kWh is usable. When you charge it to 100%, it will be holding 77kWh of energy. The rest is held in reserve to preserve the health of the battery pack. When choosing an electric car, make sure you know what you're getting in terms of actual capacity.

Ginny's tip

"Of all the confusing things out there, I think charging speeds are the biggest issue. Just remember that your car limits the speed at which it can charge, so don't get frustrated when you don't achieve the speeds on the charger."



This is Nicola and she hates jargon. Almost as much as she hates broccoli. That's a lot of hate



CCS and CHAdeMO

The terms CCS and CHAdeMO refer to the two different charging connectors you'll find on a rapid charger. CCS stands for Combined Charging System and has been the default industry connector for the last decade. Prior to CCS being adopted as the industry standard, some cars (primarily the Nissan LEAF) were designed with CHAdeMO connectors. Today, more than 99% of all new electric cars are fitted with CCS connectors, so it's not a factor in choosing a new car. However, if you're looking to buy a used car and have the LEAF on your shortlist, bear in mind that not all rapid charging stations cater for the CHAdeMO connector. With no new cars being built with CHAdeMO, that situation is not likely to improve.



Intelligent and overnight electric car tariffs

The popularity of electric cars has led to the advent of the intelligent electric car tariff. Although cheap-rate overnight electricity is nothing new, new tech has helped to create a range of tariffs that allow electric car owners with access to home charging the facility to charge their cars for much lower rates. There are two kinds of overnight tariffs, simple and intelligent. A simple overnight tariff gives your house a lower kWh price over a set period, usually 12:30 to 05:30. An intelligent tariff is a little more complicated and uses software that allows the energy provider to 'talk' to your car and charger. With an intelligent tariff, the energy provider smart charges your car with the greenest and cheapest power available on the grid. This may be outside the normal 'cheap rate' hours, but you'll only be charged the lower rate. Many new models, including all current Škoda EVs work with intelligent tariffs, but some don't so check with your supplier first.



Miles per kWh

Efficiency and consumption in petrol and diesel cars are measured in miles per gallon or mpg. Which is a little strange given that we've been buying petrol and diesel in litres for around 20 years. The electric equivalent of mpg is miles per kWh and is actually quite easy to understand (for once). Most electric cars will show the current miles per kWh figure on the dashboard. In simple terms, it means that your car will use 1 kWh to travel this distance. A standard family hatchback or SUV will return between 3.0 and 5.0 miles per kWh. So, if your car has a full 77kWh battery at the start of your journey and you are seeing 3.8 miles per kWh on the display, you can expect to have a 'real world' driving range of just under 300 miles.

kW and kWh

This is something that causes a lot of confusion – even among existing electric car owners. In simple terms, a kilowatt (kW) is a measurement of power. The rate at which a device uses electricity is always measured in kW, whether it's a toaster, a heater, an electric car motor or a charger.

An electric oven, for example, uses 6kW of electricity. If you were to run that oven for 1 hour, it will consume 6kWh of energy. If you have it on for 30 minutes, consumption will be 3kWh.

A kilowatt hour (kWh) is a measurement of the amount the energy an electrical device uses. You pay your home energy bills in kWh because it's a measurement of how much you have used – a quantity. An electric car battery is measured in kWh because it can store a fixed quantity of energy. Confusingly, both terms come into play when we talk about charging an electric car. A charger will always be rated in terms of kW (for example, a home charger will output 7kW) while a battery is measured in kWh. If you have a 7kW charger connected for seven hours, your battery will receive 49kWh of energy (7kW x 7 hours).

Regen

In a petrol car, you're burning fuel to move forward. When you want to stop moving you press the brakes and pads squeeze against discs to slow the car down. It creates heat and wears away the brake parts. In an electric car, as soon as you lift off the accelerator pedal the motor automatically reverses itself to become a generator and starts harnessing the energy to top up the battery. This is called regenerative braking.

In many modern electric cars you can tailor the amount of regen braking to suit your driving style and preference. In some cars, the regen is so powerful that you can drive without having to touch the brakes at all, except for an emergency stop.

WLTP Range

The Worldwide Harmonised Light Vehicles Test Procedure (WLTP) was officially introduced in September 2017 in the European Union, replacing the older NEDC (New European Driving Cycle) for new car type approvals. All carmakers are obliged to use WLTP figures in relation to driving range – they cannot use their own as they are not independently generated.

However, many drivers will find that their cars are unable to 'match' the official WLTP figures – especially in colder conditions or when travelling long distances on the motorway. That's partly because WLTP test cycle is conducted using different kinds of roads and driving environments. It's effectively an 'average' figure that you could potentially achieve. WLTP tests are also carried out at a fixed temperature of 23 degrees celsius – which is the optimal temperature for battery performance. At lower temperatures, batteries are generally less efficient, which explains why you use more energy on colder days.

When she's not cutting through electric car jargon, Nicki likes to practice her driving in the Electrifying office



How to recharge your electric car

Chargers are the petrol pumps of the electric age. They might look confusing at first, but getting to grips with charging is simple

One of the things we get asked about the most at Electrifying.com is charging. How do you do it, where can you do it, what cables do I need? The good news is that the whole business of charging actually sounds more complicated than it is. Yes, there's some new terminology to get your head around and a few new skills to master, but it's really no more hassle than plugging your phone in every night.

Charging at home

In simple terms, electric cars can be charged at two speeds - slow and rapid. You'll do the former at home, workplace or anywhere where you see an AC charge point. If you have a charging point at home, or even a three-pin plug socket, then you can slow charge your car. If you do this overnight you can take advantage of cheaper electricity rates and, of course, wake up to a fully charged car the next morning.

An average-sized electric car with a 59kWh battery (a Škoda Elroq 60, for example), will take around seven and a half hours to charge from completely empty to full if you have a home charger unit, but less if you are just topping up or charging to 80% (which is best for long-term battery health).



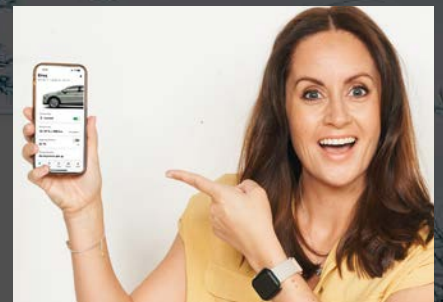
1. Locate your charging cable. If you're using a tethered charger (with a built-in cable), find the end that goes into the car



2. Plug the cable into the car - it will be obvious where it goes!



3. Once the charge has started, you can lock up and leave your car for as long as you want



4. You don't need to go out to the car to check that it's charged. Just use the connected app to check its status

**DISCOVER
MORE...**

Charging on the go

Home charging is simple and cheap, but what happens if you aren't able to install a charger at home, or need to fill up mid-journey?

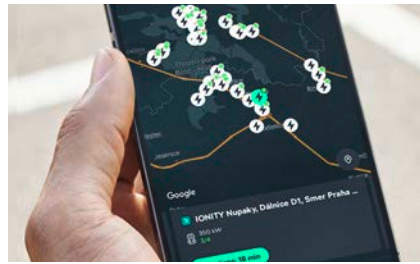
That's when you'll need to use a public rapid charger. These come in all shapes and sizes but they all do the same thing - put a lot of electricity into your battery in a short space of time.

Finding a charger is pretty simple. There are loads of free smartphone apps that not only show where charging points are, they also show you if someone is using it. We'd recommend Octopus Electroverse, ZapMap and PlugShare as great places to start.

But there's a catch here. Not a big one, but one every buyer should be aware of. All electric cars have a maximum charging speed. Older cars, like a BMW i3, have a maximum of 50kW while newer models can charge at speeds of up to 300kW.

The rate a car will charge will also depend on other factors, such as the outside temperature and how much charge you already have in your battery. The speed at which your car will charge fluctuates throughout the charging session. The car controls the rate at which the battery is charged and only allows high levels of charge when the pack is at the perfect temperature. It's usual to see quite low speeds when you first plug in (the battery will be cold) and when you reach capacity (when it will be hot).

Although rapid chargers come in all shapes and sizes, they all work in the same way. Most have a screen that will show you exactly the right order in which to pay and plug in. After a few seconds, you'll be charging your car. You can track the progress of your charge either via your car, connected app (if you have one) or the charger itself.



1. Find a public rapid charger by using your car's navigation system or by using an app such as Octopus Electroverse, ZapMap or PlugShare



2. Once you are parked at a charger follow the instructions on the screens. Most chargers work in the same way



3. You can pay for a charge either with a contactless card or via an app or an RFID card. Contactless is the easiest method



4. You'll notice that the connector is bigger and heavier than the one you use for home charging. Plug it into your car to start charging



5. The charger will show your progress, but if you want to check remotely, your car's connected app will tell you when you're fully charged



6. When you're done, follow the instructions on the charger to stop, unplug your car and return the connector for the next driver to use. Simple!

Understanding the different types of charger

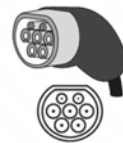
DC charger

The CCS socket allows your car to connect to a public DC charger for rapid charging. You'll find a cable and connector that looks like this attached to the charger. There is no need to use your own cable when DC charging.



AC Type 2 charger

An AC charger is a universal socket usually found at charging stations or a home wall box charger. It fits all current electric cars. On some AC chargers, you'll need to use your own cable to connect your car and the charging unit.



Three pin socket

You can charge an electric car using a domestic 3-pin plug at home, although this is the slowest way to charge your car. To use a 3-pin socket, you will need a special charger that has a Type 2 socket at one end and a 3-pin plug at the other. Between the two is a control box that ensures that the car does not draw too much power from your home.

How long will it take to charge my car?

Rapid DC charging

A rapid charger is a unit that delivers anything above 50kW. Depending on the speed of the charger and the speed at which your car can charge*, a 10-80% charge can be completed in as little as 30 minutes. Use a DC charger when you stop mid-journey.

Fast charging

A fast charger is usually defined as unit that has an output of between 7kW and 22kW. These are often found in public car parks where you can expect to leave your car for a longer period of time. These will take a few hours to charge your car from empty to full.

Slow charging

A slow charger is any unit or wallbox that has an output of between 2.3kW and 7kW. Most home wallboxes are classed as slow chargers. Depending on battery size, a full charge will take between seven hours (on a 7kW wallbox) to 41 hours (on a 3-pin plug).

*Charging times will depend on various factors, including temperature, state of the battery, state of and capabilities of the charging unit and power supply. Actual charging time will vary depending on the level of charge in the battery, as well as environmental conditions. Charging times will also be affected by the charging curve for example once charging passes 80%, charging will slow to protect the battery's longevity.

What is Salary Sacrifice?

It might sound a bit like something done on a hillside at full moon, but salary sacrifice is a neat way of arranging your finances in order to get a company car for less. Here's everything you need to know...

We all love the convenience, efficiency and simplicity that comes with electric cars. However, all these qualities can come at a price – especially if you're comparing like-for-like with an equivalent internal combustion engine car. Although some car brands have done a great job of achieving price parity with petrol and diesel cars – the new Škoda Elroq compact SUV competes on price with the brand's similarly-sized Karoq, for example, – other electric cars can appear a little expensive.

We know that for most drivers, going electric will result in lower running costs. But did you know that there is another way to reduce your outgoings. If you're employed and earn more than National Living Wage, you may be able to take advantage of a salary sacrifice scheme. The good news is that setting one up is pretty straightforward and there are lots of specialist companies offering the scheme to make the whole process simple and easy to navigate.

How can I go about setting up a scheme at my company?

It is a business relationship therefore the employer has to sign a master contract hire agreement to cover off the funding. The employer can choose from different types and values of car and different contract lengths to be made available for their employees. Employers can also choose to take out early termination and redundancy protection which protects them, and employees should they leave the employment and end the agreement early.

What's the process of ordering a car through salary sacrifice?

The scheme provides access to all current makes, models, and specifications available in UK market. Employees then make their selection and the employer conducts eligibility checks and approves the car order.

The employer leases the car from for a period of 24 to 48 months. When the car arrives, the employer reduces employee's gross salary in exchange for the benefit of the car. They then use the gross salary sacrificed to cover the lease company's monthly invoice.

Ginny's tip

"It might appear to be a real faff, but there are significant benefits to getting a new electric car via a salary sacrifice scheme. A shorter contract period will allow you to trade into an improved model earlier, too."



How much work will my HR department have to do to set up salary sacrifice?

Very little. The lease company you sign up with should implement and carry out the majority of the work. Implementation generally takes between four to six weeks at zero cost to the employer.

Are there restrictions on which employees can have a car under salary sacrifice?

There are no restrictions on which employees can benefit from salary sacrifice, in fact HMRC is keen for all employees to have access. There are however age restrictions on certain cars based on insurance cover. The lease company will work with employers to ensure employees only have access to the cars they can afford and are legally entitled to drive. There may also be financial restrictions as the amount an individual can sacrifice for a car cannot take them below National Living Wage.

Will salary sacrifice affect my pension or other benefits?

Most companies use the notional salary to calculate pensions, which is based on the employee's salary before any salary sacrifice contributions such as a car or childcare. A final salary pension could be impacted and if you were in your final three years of employment before retiring, there could

be more of an impact so it would be worth reviewing the decision in detail. There would be no impact on an employee's own private pension such as a SIPP. As with all areas of pension we would recommend employees receive professional advice through their company or an Independent Financial Adviser before signing up to the scheme.

Will salary sacrifice affect a mortgage application?

Yes, as part of a mortgage company's affordability index individuals have to volunteer their gross and net earnings and outgoings such as a bank loan, credit card or car HP or PCP finance. Therefore, all salary sacrifice benefits would also have to be declared.

Does a company need to be a certain size to have a salary sacrifice scheme?

There is no legislative restriction based on a company's size and the benefit is designed for all employees, not just directors or company car drivers.

Can sole traders and the self-employed set up a scheme?

No, as under HMRC legislation you need to be an employee to benefit from Salary Sacrifice as you are agreeing with your employer to vary your terms and conditions of employment to receive a benefit in lieu

of salary. Small organisations can however operate salary sacrifice schemes and there are salary sacrifice providers in the market that specialise in working with smaller companies.

Am I only allowed one car through a salary sacrifice scheme?

HMRC does not stipulate a restriction of how many cars an employee can have on a salary sacrifice scheme, it is down to the employer's overall benefits framework and employee affordability.

My company currently pays mileage when I travel on business. How will this be affected?

This works the same way as a company car with the employee being compensated for any business mileage based on HMRC's advisory mileage rates. <https://www.gov.uk/guidance/advisory-fuel-rates>. Employers can choose to pay more than these rates, but employees must remember they will be taxed on the additional company mileage contribution.

 **DISCOVER MORE...**



What is an electric car like to drive?

Forget clutches and gearboxes, electric cars redefine driving simplicity and deliver plenty of fun along the way

We know that electric cars are quiet and efficient. We also know that they produce zero tailpipe emissions and can potentially save you money. But did you know that they are incredibly easy to drive? Although many 'driving enthusiasts' are often quick to dismiss electric cars as soulless devices, those who have made the switch are often surprised by how simple and enjoyable they are to drive.

Let's start with the stuff you won't see. There's no gearbox doing a million and one things under the bonnet. There's no gear stick to stir around and no clutch to give your left leg a good workout in traffic.

All you have is a drive selector where you to choose between going forwards.... or backwards.... And for the times that you're not doing either of those things, you can select park and it locks the wheels. Drive selectors come in all shapes and sizes and can appear in a few different locations. On a Škoda Elroq and Enyaq, for example, you'll find it on the

centre console, while other cars have them on a steering column stalk.

Like an automatic, there are two pedals, accelerator and brake. The one that makes the car go is, of course, the one on the right. But here's something you might not know. Unlike a petrol or diesel engine, the electric motor in an EV delivers full power the moment you press the accelerator. Don't worry – you won't shoot off towards the horizon – but you will notice that power feels more 'instant'.

You'll also find that an electric car feels a lot more secure to drive, and that's because the battery pack is right below the seats which keeps the centre of gravity very low. This makes them feel very stable through corners. We know from driver feedback that the simple, stress-free driving experience delivered by an electric car is one of the main reasons why the majority of switchers don't intend to go back to an internal combustion engine car.

Ginny's tip

"Always, always, always take a test drive before you choose your car. Although electric cars are fundamentally the same, they all drive differently. It's a very personal thing, so find one that you'll be comfortable with all the time."



DISCOVER MORE...

"There's no gear stick to stir around and no clutch to give your left leg a good workout in traffic."



Regen, B button and e-Pedal. What do they actually do?

If you've read a few reviews of electric cars, you may have come across the word 'regen' and heard of things like 'B mode' and 'e-pedal'. Regenerative braking, or regen for short is a system whereby an electric car 'harvests' energy that would otherwise be wasted and feeds it back to the battery. When you brake or coast in an electric car, the motor becomes a generator and feeds energy back into your battery. More energy in your battery means a longer range, so you can see the huge advantages of regenerative braking.

In some electric cars, you can fine tune the level of regen. In urban driving, a more powerful regen action means that you'll use the brakes far less as the car uses the regen to slow the car down. On cars like the Škoda Elroq and Enyaq, this is activated by selecting 'B' on the drive selector. Some models also have intelligent regen systems that use the car's sensors and GPS information to increase regen power when going down hills or approaching corners.

It might feel a little odd at first, but once you get used to it and realise that every time it happens you're putting power back into your battery, it does get a bit addictive!

Driving modes

Like B mode, the names of the various modes vary by manufacturer, but generally speaking, they all do the same thing. As with regen modes, you'll



find that these are changeable either by physical buttons or via the infotainment system. Most cars equipped with driving modes offer a minimum of three different options. You'll usually find that the one in the middle offers the best balance between performance and efficiency. It's usually called something like Standard, Comfort, or Normal.

If you want to maximise the efficiency of your car and don't mind trading a little performance or acceleration, many cars come with an Eco mode. This often maximises the energy efficiency by reducing the electric motor's power output and in some cases reducing the functions of the heating system.

At the opposite end of the scale is Sport. This is for when you want sharper reactions and a more dynamic driving experience. Depending on the car, Sport mode can allow maximum electric engine power output as well as tightening up the responses from the accelerator pedal and steering. Sport mode does affect the efficiency though, so it's best to use it when you're not trying to stretch your range to the max.

“Regenerative braking means that you’ll probably use the brake pedal far less than you would before.”



Myth Busting

It won't have escaped your attention that there's a mountain of urban myths and disinformation swilling around the media. But panic not because we're here to help you sort the fact from the fiction



The myth

"The National Grid won't be able to cope if we all switch to electric cars."

"You can't charge an electric car in the rain."

"The batteries are full of nasty stuff and they won't last."

"Electric cars are just too expensive to buy."

The fact

The truth is that there will be enough energy to meet future demand and the grid will be fine. Growth in renewable energy will help and smart metering will make our use of power more efficient.

According to the National Grid, we're using 16% LESS energy than we were 20 years ago.¹ The National Grid estimates that an overnight switch to electric cars would result in a 10% increase in consumption.

We know that electricity and water don't mix. But no current flows between the car and the charging station until they have talked to each other and decided that everything is tickety-boo, while the car and cables are shrouded in layers of protection that prevent them getting wet or dirty.

Electric car batteries contain a complex mix of elements and chemicals. However, almost all the materials found in an electric car battery are recyclable and the batteries are expected to have a life of 20 years or more in various guises. Manufacturers are also working to reduce the environmental impact of production. LFP (lithium iron phosphate) batteries, for example, don't use cobalt.

A few years ago, car buyers had to pay a hefty premium to choose an electric vehicle over petrol or diesel alternatives. Over the past two years, that gap has narrowed significantly – so much so that some models, like the Škoda Elroq (below), now almost match the price of similarly sized counterparts in the brand's line-up.



The myth

“An electric car can’t take you as far as a petrol or diesel car.”

“I don’t have off-street parking. An electric car is completely unsuitable for me.”

“All the electricity used to charge electric cars is created by burning fossil fuels.”

“There aren’t enough public chargers for electric car owners.”

“Electric cars catch fire more often than petrol cars.”

The fact

There’s no hiding from the fact that, right now, a petrol or a diesel car will usually go further without needing a top up. However, if you take regular breaks (drivers are advised to take short stops every two hours) and use that time to plug in, the distance you can travel is as long as you want it to be. The rapid charging network is growing all the time while battery ranges are improving with every new model that arrives.

The ability to charge at home with domestic rate electricity is great, but that doesn’t mean that an electric car isn’t suitable for those who don’t have access to this. Many urban electric car owners have small commutes and only need to charge once a week. This can be done at a supermarket or at the gym - wherever there’s a charger.

In 2024, UK renewables generated a record 50.8% of electricity², surpassing half for the first time, up from 46.4% in 2023. Low-carbon sources (renewables and nuclear) supplied 65%, while fossil fuels fell to 31.5%, their lowest since the 1950s. Wind power hit 29.5%, solar 5.2%, and nuclear 14.25%

There are now just over 29,000 rapid charger connectors in the UK and more than 6,500 locations³. That’s a 30% increase over 2024. Thousands of new sites and chargers are either in the planning stage or being built, which means that any electric car driver will have access to countless charging points.

A recent study by the Swedish Civil Contingencies Agency concluded that EVs are 20 times LESS likely to catch fire than petrol and diesel cars. With data corroborated from a US insurer, the study found that EVs suffer 25 fires per 100,000 sold. Petrol or diesel vehicles were found to experience 1,530 fires per 100,000, with hybrid vehicles at a notably higher risk of 3,475 fires per 100,000.⁴

New multi-charger hubs are joining the network every week. This new Instavolt hub in Winchester, Hampshire now has 44 rapid chargers



ELECTRIFYING^{COM}



@electrifyingcom



@electrifyingcom



youtube.com/electrifyingcom



Search 'Electrifying.com'

