



Association of Fleet Professionals

Electric Vehicle Employee Communications

Will I need to pay for a charge point?

No, <Company A> will pay for this, with part of the cost being covered via government grant. Our charge point provider will contact you in the next few days to arrange the installation.

OR

No, the cost of the home charge point is included with your leasing contract. The leasing company's charge point provider will contact you in the next few days to arrange the installation.

OR

Yes, but the cost is typically around £500-£600 after a Government grant which helps fund the charge point. Given the cost savings of BIK tax and private fuel this still means the electric company car will be giving you cost savings very quickly. Our charge point provider will contact you in the next few days to arrange the installation.

How much will it cost to run my electric vehicle?

We will cover the cost of business journeys at £0.04 ppm. For your private journeys the cost is typically less than 4p per mile which is about one third of the cost of an equivalent diesel car.

There will also be no congestion or emissions charge if you travel in Central London.

Can I charge up at <Company A> sites?

Yes, most main <Company A> sites will have charging points which will allow you to charge up whilst at work. We would recommend, however, that most of your charging takes place at home, and the charging point you will have installed will allow you to fully charge up overnight.

How will I know where I can charge up during my journey?

There are various charging Apps (a popular one being ZapMaps) which will help you identify the nearest charging point by connection type, so you can always be sure you can use a public charge point before you try to connect. Some electric cars also have up to date charging maps on their Sat Nav as Google Maps now includes charge points. There are currently over 34,000 charging points in the UK and more are being added every month.

Be aware that in order to use particular networks you may need to be a member in advance or require use of their App.

How far will my electric car go before needing to charge?

It depends on a number of factors including your speed, weather conditions and use of heating/air conditioning. Most car manufacturers have online tools that provide information on real world driving ranges i.e the maximum distance they'd be confident driving on electric power in different

conditions, which can be found on their websites or in the vehicle itself.

How long will it take to charge?

It depends on the type of charger used and how much charge is left on the battery. Typically, a home charger will fully charge your vehicle overnight, a fast charger (e.g. <Company A> charge points, public charge points excluding motorways) will take 3-6 hours for 80% charge, and a rapid charger (e.g. at motorway service stations) can take as little as 20 minutes for 80% charge.

What if someone unplugs my car when charging on a public charge point?

When charging at a public charge point the charging lead locks into the charge point on charging. When you lock your car, the lead will also lock into the car so no one can unplug the vehicle without you being present and stopping the charge or unlocking the car.

Can I use an extension lead and a normal 3 pin plug to charge my car?

Some cars may be provided with a 3-pin plug charging lead but we would always recommend only using a home smart charge point. However, for occasional charging such as visiting a friend's house you can use the 3-pin plug lead, however you **MUST NEVER USE AN EXTENSION LEAD** to charge your vehicle. Please **ALWAYS** refer to the vehicle manufacturers instructions for charging your vehicle.

Electrocution concerns (Can I drive an EV in the rain? Will I be electrocuted if plugging in the charge cable while it is raining? Do I need to wear rubber shoes while driving the EV? Will I get electrocuted by my vehicle in a crash?)

No. You can drive your EV in the rain just like any other car and the vehicle is safe.

Does an electric vehicle need to pay the London congestion or Ultra Low Emission Zone charges?

No, one of the great benefits of using an EV is that zero emission vehicles do not have to pay these fees, and in addition there are no planned Clear Air Zones or other environmentally focused restrictions that will affect zero emission vehicles such as these.

Are these cars actually better than diesel cars for CO2?

Electric vehicles are better than traditionally fuelled vehicles on tailpipe emissions as they produce no emissions at the tailpipe at their point of use.

With regard to CO2 emissions, again they produce none at the point of use, but CO2 is created when the electricity is generated. Even taking this into consideration the CO2 emissions from electric vehicles are still significantly less than diesel and petrol cars and as more sustainably generated electricity is produced the CO2 equivalent emissions for electric cars will reduce further.

How long will the vehicle's battery last?

Electric vehicle batteries are expected to outlast the working life of the vehicle, so during the time you have the vehicle there should be no issues regarding the batteries. Electric vehicles are proving to be the most reliable vehicles on the road.

All you're doing is moving harmful emissions from car tailpipes to power stations?

2019 was a record breaking year as more electricity was generated by clean sources than fossil fuels. With the growth in onshore and offshore wind farms and the closure of a number of coal plants have ensured the UK is making more sustainable, low carbon energy than ever before.

Are we going to end up with old car batteries littering the landscape.

All EVs have effective power management systems that guard the long-term health of their batteries. Most manufacturers are offering battery warranties of seven or eight years, or around 100,000 miles but there's a reasonable expectation that they will actually last longer than that and indeed outlive the car itself.

Even if a battery became no longer fit for use in the car it won't end up in a landfill site, as it can either be recycled or given a second life as an energy storage unit for homes or businesses.

Can the UK energy grid really cope with a huge increase in the number of electric vehicles being plugged in for charging?

Enough capacity exists. According to the National Grid, even if the impossible happened and everyone switched to EVs overnight, grid demand would only increase by around 10 per cent.

For sure, there will be challenges if everyone charges their vehicle at the traditional evening peak of electricity demand (between 18.00-20.00), coinciding with people returning from their commute. This is why the new smart chargers being used domestically can be set to charge overnight with some electricity companies also providing much lower costs for charging your vehicle between 23.00 - 05.30.

Are Electric Vehicles more expensive to maintain and repair?

Electric vehicles have around 50 moving parts, while a petrol or diesel vehicle has over 1,000. EVs do not require regular oil changes and, because there are fewer moving parts, there are also fewer things that fail or need to be replaced. For example, EVs don't have a clutch, fuel tank, catalytic converter or drive belts, which often need to be replaced or repaired in diesel and petrol vehicles.

Electric vehicles do not have a long enough range.

Electric cars now typically have official ranges of between about 200 and 350 miles although in real world driving these will be slightly less. This, and growing network of rapid and destination chargers means most EVs will have plenty of range for the typical car driver - and these ranges are increasing all the time.

It takes forever to charge an electric vehicle.

Rapid and Ultra rapid chargers are becoming increasingly common on the UK road network. These have the capability to charge very quickly. A 50kW charger can charge at about 100 miles in an hour, and a 150kW ultra rapid charger in about 300 miles in an hour. Where a driver has a home charger the real benefit is a "full tank" every morning if needed.

People are being exploited to make electric vehicle batteries.

No cars or commercial vehicles are without environmental and other challenges. Extracting crude oil is damaging more wilderness areas as we look to find new reserves, and precious metals are needed in catalytic converters for petrol and diesel cars. Vehicle manufacturers are working on new battery chemistries that reduce the need for elements such as cobalt to help minimise the negative impacts of electric vehicles.

Batteries are electric vehicles "Achilles' Heel".

Battery cars are been seen as very reliable, the probably only downside of batteries is that they do degrade over time, but this is typically low levels of degradation and over many years.

Electric Vehicles are not better for the environment than combustion-engine vehicles.

Over the lifecycle of a vehicle, it has been proven that electric vehicles are significantly more carbon efficient than internal combustion engine vehicles. Although they are more energy intensive to produce, their in-life energy efficiencies make them much more efficient. In addition, as the UK generates more and more of its electricity from "green" renewable sources their environmental footprint reduces further. Over the last 10 years the UK's "green" energy mix has increased significantly, and with some large scale offshore wind farms being constructed will continue to benefit the carbon position of electric vehicles in the UK.

Electric Vehicles are more expensive than combustion-engine vehicles.

At the moment electric vehicles do have a purchase price/ lease cost premium over a comparable diesel or petrol vehicles, however there are Government grants to reduce the up-front cost, and tax advantages, especially for company car drivers and businesses that can make electric vehicles extremely cost effective. If you take a whole life cost approach and include the cost of fuel, many electric vehicles can be cheaper than traditionally fuelled vehicles, as their fuel cost is typically only a third that of a diesel equivalent. By taking a holistic view of cost many electric cars are considerably cheaper for the employee and provide a cost saving to the business too.

Electric Vehicles are dangerous.

Electric cars have to undergo the same safety tests as traditionally fuelled cars to be available for sale in the UK and EU. Where electric cars typically have a large battery in the base of the vehicle they are actually safer in an accident than a diesel or petrol car. Tesla models have some of the highest crash test scores achieved by any vehicles in both the European and US safety tests.

E-cars are just a stop-gap solution.

Electric vehicles are zero emission, efficient and becoming more and more cost effective which means they will probably be the fuel of choice for the foreseeable future. They also benefit from an already strong recharging infrastructure as you are never far away from an electricity supply in the UK. Other options such as hydrogen are far more expensive and more complex than battery electric vehicles, and there is effectively no refuelling infrastructure which would be very expensive to create.

Electric Vehicles are not fun to drive/difficult to drive.

Electric vehicles are very smooth and quiet which leads to a relaxing drive. They are also quick and with often a low centre of gravity due to the battery packs being in the chassis area inside the wheel-base they have excellent handling. The primary benefits are the ease of driving and the relaxed driving experience. However, some electric vehicles are extremely fast, the Tesla P100D Model S has been the fastest accelerating production car in the world for a number of years, and electric cars provide high torque quick acceleration at most speeds as there are no gears to churn through. They are fun to drive but obviously must be driven in a responsible manner!



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