Driving and leasing electric vehicles

What's next?

Increasingly, companies are planning to include electric cars in their car policies. Yours is probably one of them, whether to help protect the environment, for tax reasons, or even to attract new talents. There are various reasons why your business might decide to lease electric vehicles.

But what about the possible downsides, such as recharging them? In this white paper, we address the main questions and answers on the issue of driving electric vehicles.

What types of electric cars are there?

Let's assume you're planning to include electric cars in your policy. What happens next? What types would you choose?

Would you go for vehicles that are entirely electric, or for plug-in hybrids? It all depends on what your employees need. Are they constantly on the road visiting customers, or do they only need to make short trips? The majority of electric vehicles found on our own roads fall into two main categories. Read on for details of their advantages and disadvantages.

- **Plug-in Hybrid (PHEV)**
- **100% electric (FEV)**

Plug-in Hybrid (PHEV)

A plug-in hybrid car is not only fitted with an electric motor but also with a combustion engine. You can recharge the battery from a power outlet and refill the fuel tank at a service station. The battery allows you to make short journeys powered entirely by electricity. When it runs out, the combustion engine takes over.

When is this system of interest?
A plug-in Hybrid model can be ideal as an intermediate solution, particularly if you don't want to or can't switch to fully electric driving yet. The battery ensures lower emissions, but still gives you a large amount of independence. To ensure lower emissions, it is of course essential to recharge the battery as often as necessary.

Advantages and Disadvantages:

- ✔ Lower emissions (subject to optimum battery use)
- ✔ Good independence. This system may be suitable for employees who travel a large number of kilometres each day.
- ✔ Contributes towards the acceptance of electric driving and the growth of recharging point
- ✘ Lower tax interest for certain models starting from 2020
- ✘ Limited effect on the environment
- ✘ More expensive than petrol or diesel models
- ✘ Higher fuel consumption when used incorrectly.

100% electric (FEV)

And what do these consist of?
A 100% electric vehicle powered entirely by an electric engine. This means that your vehicle does not produce toxic emissions and that you don't have to fill it with petrol. But...there is no "back-up": if the power has run down, you cannot continue your journey without first recharging your vehicle at a recharging station.

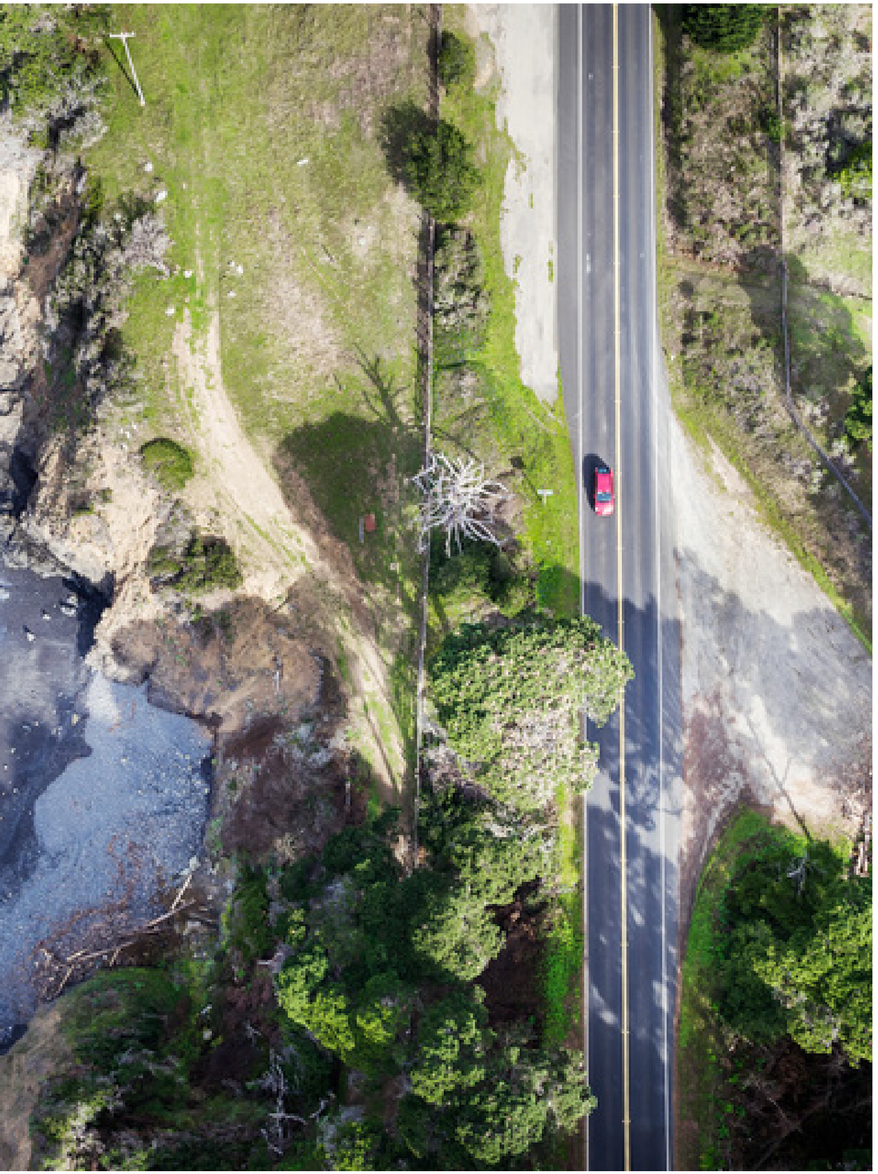
When is this system of interest?
If your company opts for a zero emissions policy and you want to benefit from the tax advantages. Up until 2020, electric vehicles are tax-deductible at a rate of 120% From 2020, this rate will still be an advantageous 100%. But your employees must be able to recharge their vehicles at a recharging station, at home, at work or nearby. Although the independence of the newer models is increasing constantly, the range of activity of a vehicle fitted with an electric motor remains lower overall than that of comparable models that run (partially) on petrol.

You should also bear in mind that recharging takes a long time. Use of the car should therefore be harmonised accordingly. Otherwise, it takes a huge amount of planning on the part of the user.

Advantages and Disadvantages:

- ✔ No direct emissions
- ✔ Tax benefits
- ✔ Cuts consumption costs

- ✘ Lower driving range, in many cases
- ✘ Relatively long recharging time
- ✘ Requires planning by the driver
- ✘ Range depends on weather conditions and conditions of use (on motorways, the battery discharges faster).



Hydrogen vehicle (FCEV)

Did you know?

In addition to 100% electric vehicles and plug-in hybrids, there is a third type of electric vehicle available with enormous potential for the future: **hydrogen vehicles**, whose emissions are composed only of water. These vehicles are fitted with what is called a fuel cell, which transforms hydrogen and oxygen into electrical power. The battery of the electric motor propelling the vehicle is therefore recharged. The autonomy of these models is comparable to that of vehicles that run on petrol, but unfortunately, they are not an option at the moment.

This is down to the still very limited number of hydrogen refuelling points and also the very few models currently available on the market. Although this type of vehicle is sustainable, the same cannot (yet) be said for the production of hydrogen. It is, nonetheless, a promising source of energy in which there has been enormous investment, while the charging network is expected to be better developed by 2025.

Electric driving and savings.

Is electric driving genuinely cheaper?
Electric vehicles have a reputation for being more expensive overall than those that run on fuel. But this isn't always true, as with the help of competition, new electric vehicles are being sold at lower and lower prices. Residual values, meanwhile, are becoming more and more attractive. On top of this, there are the tax advantages and the fact that consumption costs for an electric vehicle are lower than those for a vehicle fitted with a fuel engine.

More attractive taxes on electric vehicles
The authorities are providing incentives for sustainable driving. Until 2020, for instance, the costs of an electric car are 120% tax-deductible for companies. Starting in 2020, this deduction will be lowered to 100%, but electric vehicles will still remain more attractive in taxation terms than those with a conventional combustion engine.
Electric vehicles are also attractive for employees too, as zero emissions mean that the Benefit In Kind is limited to the minimum amount for many models.

Lower maintenance
A 100% electric vehicle requires less maintenance than other vehicles.
The engine has fewer moving parts that are subject to wear, and there is no need for oil or coolant fluid. The same goes for the gearbox and the exhaust, while the brakes wear out less quickly too. All of which means fewer trips to the garage for your employees.

Please Note: In the case of a plug-in hybrid, the fuel engine requires the same amount of maintenance as an "ordinary" vehicle.

More advantageous use
As long as you have the option of recharging the vehicle at home or work, it will usually work out cheaper than running on fuel.

Comparison: electric driving is getting cheaper
The driving range of new all-electric vehicles is improving all the time and boosting their appeal. As the following graphic shows, the cost of monthly leasing for an electric model* is getting closer and closer to a comparable fuel, diesel or CNG version. The purchase prices are higher, but the after-tax costs are lower.

* Costs are based on a comparable model with an automatic gearbox. In the calculation, we have not taken into account the costs required for the installation of a charging station.

Should you switch to electric?

Want to include electric driving into your car policy, or even switch to a 100% electric fleet? How can you do it and what do you need to consider? We've drawn up a list of the key points to think about.

Feasibility study:
The first step involves defining which employees can switch to electric driving and at when. How many kilometres will they be driving every day? Will this mainly be home-to-work commuting, or will they be visiting numerous clients? What type of vehicle will your employees need in order to be able to carry out their tasks and is there an electric version available?

Which models are available on the market and do they represent an alternative for those currently included on your car policy? Will your employees be able to recharge an electric car at home? Are there enough recharging points at work?

When you've answered all of these questions, you'll be able to examine the extent to which a switch to an entirely electric fleet is feasible: will you opt for a gradual introduction, do you want to actively promote electric vehicles, or do you want to ''switch'' in one go?

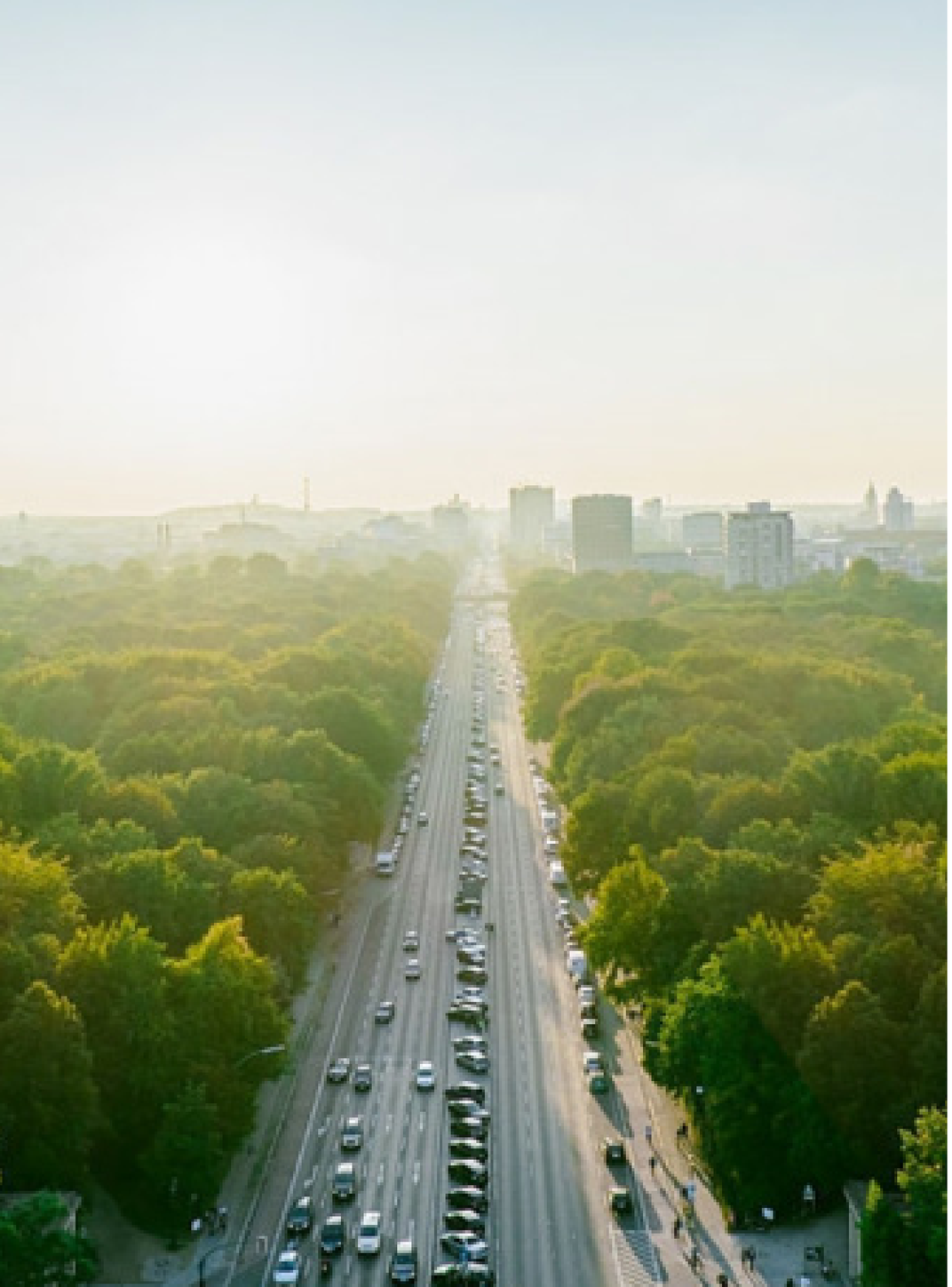
How to do it?
If you provide your employees with electric vehicles, you will obviously want to offer them a suitable recharging solution. In most cases, you can contact the leasing company, which will offer you advice and recommend a recharging solution. For example, LeasePlan offers a suitable recharging package with a recharging card. In addition to the charging point and its installation, the package includes a 24/7 breakdown service, a full warranty and the automatic refunding of the electricity costs. Entrusting the entire process to a leasing company has multiple advantages, as charging statements and refunds are processed automatically and the contact for the charging station and vehicle are one and the same.

Where can you recharge?
You can recharge the battery at work and at home, but also at a public recharging station. There are currently around **1800 public recharging stations** nationwide. A small proportion of these (about 280) are fast recharging points, which are mostly installed in easy-access car parks and along the motorways. A rapid recharge station can top up a battery to 80% in 30 minutes (caution is advised though, as this method is not suitable for all vehicles).

To recharge your vehicle, you'll need a recharging card, which allows you to be identified and also to pay directly at the public terminal. Bear in mind that recharging at a public terminal - although fast - is usually more expensive than recharging at home or at work. In the **App Store** or **Google Play Store**, you can download apps that show the locations of all the recharging terminals in Belgium and Europe.

Download on the App Store

GET IT ON Google Play



What happens if your employee needs to travel an exceptionally long distance?

Suppose: your employee has carried out an estimate of the average distance he/she has to travel per day and per year and, on the basis of this, he/she has chosen an electric vehicle. But it may happen that he/she has to travel an exceptionally long distance, perhaps to visit a client at the other end of the country, or to travel abroad for a project. Or maybe he/she wants to go on holiday abroad in the vehicle, but its driving range is insufficient...What should they do?

Plan the route in advance
Check first where you will be able to recharge the vehicle along the route (for example, via the LeasePlan app). Ideally, set a route that has rapid recharging stations so that your employee can ''fill up'' quickly. In other cases, allow for a recharging time of a few hours, depending on the type of vehicle.

Opt for a group of ''shared'' vehicles, or swap with a colleague
For this type of situation, it is best to make a few shared vehicles available. The employees can book one in advance if they have to make a long trip.

Another option involves doing a swap with a colleague whose car has a greater driving range. usually, this will be a petrol or diesel vehicle. As part of the swap, the other colleague will get to experience driving an electric vehicle, so it's a win-win situation!

Make a rental car available
If your employee's planning a longer trip such as going on holiday, you can offer them the option of renting a temporary vehicle with a greater range of action. This can also be done via a leasing company.

Use a mobility card
It can sometimes be convenient to travel by train or some other form of public transport: when there is heavy traffic, for example, or if it's going to be difficult to park or recharge your electric vehicle. In such a case, you can combine a hired vehicle with a mobility card. Once you've decided what forms of transport this card can be used on, you'll be ready to go!

An ever-expanding range

These days, most manufacturers offer at least one electric vehicle (FEV). If you look at the overview below, you'll see that new offers are constantly appearing. Due for release this year or next, these new models are often fitted with larger and more efficient batteries, allowing you to make longer journeys.

Year	Brand	Model	Battery Size
2018	Audi	E-tron Quattro	95kWh
	Hyundai	Kona	40kWh / 64kWh
	Jaguar	I-Pace	90kWh
	Kia	Niro	64kWh
	Nissan	Leaf	60kWh
	Opel	Ampera-E	60kWh
2019	Audi	E-tron Sportback	95kWh
	Mercedes	EQC	70kWh
	Tesla	Model 3	56kWh / 76kWh

Electric driving: the key concepts

When we talk about electric vehicles, we mean those that run partly or fully on electricity and do not, or only to a limited extent, use a fossil fuel like petrol, diesel or CNG. You recharge the battery using a recharging point, a recharging cable and a recharging card. Then you can hit the road.

The main concepts

Below, we've listed the key concepts that are generally associated with electric driving.

Driving range: the distance that a vehicle can cover with a battery and/or a fuel tank (without having to fill up with fuel or recharge again along the way).

Fossil fuel engine: an engine powered by a fossil fuel, like petrol or diesel or LPG.

Fuel cell: a device that produces electricity from hydrogen and oxygen.

Battery Electric Vehicle, BEV: a vehicle that runs on 100% electricity via an electric motor and battery. Also called FEV (Full Electric Vehicle).

Electric engine: an engine powered by electricity.

Fuel Cell Electric Vehicle, FCEV: a vehicle that runs entirely on electricity produced by a fuel cell using oxygen and water.

Kilowatt hours/KWh: a unit of energy for batteries. ten 100-Watt bulbs burning for one hour produce 1 kWh. An electric vehicle consumes as much per kilometre as one of these bulbs.

Charging station: where you can recharge your electric vehicle. There are recharging stations that are private (for the home) and public (located in the community), as well as rapid recharging points (in car parks or along motorways).

Recharging card: to be able to recharge at public terminals, you generally need a recharging card.

Recharging time: the time needed to recharge the battery of an electric vehicle.
The Li-ion/Lithium ion cell battery is a type of battery that is frequently used in electric vehicles.

Plug-in Hybrid Electric Vehicle, PHEV:
Vehicles that can run on both electricity and fuel.

Range-extender (E-REV): electric vehicle powered entirely by electricity, but whose battery can be recharged using a fuel engine (to increase its driving range).

LeasePlan

LeasePlan Belgium
Excelsiorlaan 8
1930 Zaventem
Belgium
info@leaseplan.com
+32 2 722 62 11

leaseplan.be