



Electric Vehicles (EV)

Going electric, or hybrid, is good for the environment – but driving an EV brings new challenges

The Facts

- The last three years have seen a remarkable surge in demand for electric vehicles in the UK – new registrations of plug-in cars increased from 3,500 in 2013 to around 48,000 by the end of 2015 [1]
- As a result of sustained government and private investment, the UK network of EV charging points has increased from a few hundred in 2011 to more than 9,500 in December 2015. The proportion of charger types has also changed dramatically during that time with an increase in high power (rapid) units being installed across the UK
- There are now four types of electric cars available: battery electric vehicles (BEV), plug-in hybrid electric vehicles (PHEV), conventional hybrids and hydrogen fuel-cell powered. While each has its advantages and disadvantages, all save on fuel and emit fewer greenhouse gases
- There are three main EV charger types: ‘slow’ charging units (up to 3kW) which are best suited for 6-8 hours overnight; ‘fast’ chargers (7-22kW) which can fully recharge some models in 3-4 hours; and ‘rapid’ charging units (43-50kW) which are able to provide an 80% charge in around 30 minutes
- If an electric vehicle totally runs out of charge, it will need to be recovered and taken to the nearest dealer

The Advice

- A bit of planning will literally help you to go a long way in your electric car. Before driving the electric car, it is important to know all the charging stations within your route. There are a lot of applications that can help you to scout for all available charging stations. eg <https://www.zap-map.com/>
- Slowing down will improve your battery life, and help you to drive for longer without the need to recharge
- Electric cars are much easier to maintain than their oil-fuelled counterparts. Always ensure that the tyre pressures are right, and that the tyres are rotated properly i.e. front to back. You should also check the battery frequently, and replace it when necessary. You should also follow the manufacturer’s manual and use the maintenance tips provided
- Avoid roads that are hilly or uneven as the vehicle consumes more battery in order to drive over such roads. Try to choose a lane and route that is smoother and easier to drive on. This will help the car to preserve energy so that the driver can use it for longer
- Try not to get lost and suffer from ‘range anxiety’. Anyone who is worried about the range that their vehicle can cover should try as much as possible to get to plan their route carefully
- Pre-condition the vehicle before driving i.e. on cold mornings get the correct cabin temperature while still on charge
- Use deceleration much more than normal to help with battery regeneration
- Above all, read your handbook to gain maximum benefit out of the vehicle’s technology

Sources [1] <http://www.nextgreencar.com/electric-cars/statistics/>