

Unless you have an EV (Electric Vehicle) that's only ever charged by solar panels, all vehicles are ultimately burning fossil fuels to move us around. This is of course especially true of ICE (Internal Combustion Engine) vehicles.

Wherever possible we should seek alternative travel arrangements, e.g. walking/cycling, or using public transport, which reduces our energy consumption per head on a busy bus/train, rather than driving by ourselves.

If you do have to drive, try to car-pool as much as possible to reduce energy consumption per head. Also try to follow these top tips:

1) Plan ahead

Gone are the days when planning for a road trip might involve spending hours poring over a road atlas, then double-checking specific roads in an A-Z. Thanks to the internet there are dozens of route-planners and UK maps available, so we can see exactly where we're going, every step of the way. Through this kind of planning and preparation, we can reduce the total mileage by seeking the most efficient route. If possible, use an in-vehicle sat-nav that can warn you of any incidents/road closures etc. Select "eco mode" or equivalent, where available, to find the most efficient route.

2) Feel the pressure

Your mileage can drop dramatically if your tyres aren't fully inflated. Check your vehicle's manual for the correct pressure, and test the tyres regularly, especially before any long journeys. You can purchase a digital tyre pressure gauge, to save you from having to visit a petrol station each time.

3) Travel light

Vehicles use more fuel when laden, so any surplus weight is costing you money. Make sure before your trip that you don't have items in your boot that you could store at home instead. *For ICE vehicles, a full tank of fuel can end up costing you more than topping up to around 75% of capacity whenever you dip below 25% of capacity.*

4) Don't be boxed in

Roof boxes add a massive drag factor to your driving, reducing your fuel mileage and wasting you money. Some products might appear to be aerodynamically sound, but if they were really

beneficial, all vehicles would be built with them in place. As soon as you've finished using yours, store it away from your vehicle.

5) Obey the rules of the road

Speeding is dangerous, and it is also a waste of money. If your journey includes a stint of 20 miles on a motorway, you'll complete that in 17 minutes at 70mph, or in 15 minutes at 80mph. Are those 2 minutes really worth the possibility of a speeding ticket/accident? For ICE vehicles, an additional 25% of fuel is burned at 80mph rather than 70mph. For EVs there is an increasing drain on mileage, the faster you drive.

6) Prepare to brake

Whenever your vehicle stops, it costs more to start it up again than it does to maintain a steady speed. Keep your eyes on the road ahead to anticipate any reasons to stop. If there's a traffic light up ahead that might turn to red soon, you might be able to reduce your speed now, and reach the lights once they've turned back to green. That way you've avoided a costly stop. Always try to take your foot off the accelerator while driving downhill. Let gravity provide you with a free boost.

7) Dress for the weather

All the internal electronics within your vehicle consume costly energy, so it could save you a lot of money to wear a jacket, rather than cranking up the heating. The same applies for removing that jacket, rather than relying on air-conditioning. Wherever possible, wind down windows for free air, rather than switching on the air-conditioning. While it is true that an open window creates drag, the overall energy cost of that drag is less than that involved in powering the electronics to run the air-conditioning.

8) Get in gear

For ICE vehicles, the more revolutions your engine performs, the more fuel it needs to burn. Keep an eye on your "rev" counter. For diesel vehicles, try to shift up a gear on or before 2,000 revs, or 2,500 revs for petrol vehicles.

We accepted the challenge to follow all these rules to the letter, and over the course of a month we saved 25% of our regular consumption. Can you beat that?



Energy Projects Plus has taken out a 3-year lease on an electric vehicle. We wanted to get to know the technology better, and test the water before taking the plunge and purchasing our own vehicle.

While many makes and models are available, and we do not recommend any, we have opted for a 2020 edition Volkswagen e-Golf. Its 35kW battery provides for a stated range of 144 miles, which is far greater than we should need, as we only tend to drive for work within Merseyside and Cheshire.

We've had a standard charging point fitted in our office, which charges the vehicle at a rate of 3kW per hour, providing a full charge overnight.

The major differences

1) Getting going

It can be a little embarrassing to get into the vehicle, and realise you've forgotten how to switch it on. But once you're used to the booting-up sequence, it becomes second nature. The e-Golf is relatively 'normal' in that, there's a key you turn into an 'ignition' (that doesn't ignite anything). Some other electric vehicles we test drove are less intuitive to get started.

2) All electric cars are 'automatic'

Most drivers in the UK are used to a manual transmission, with a clutch pedal and gear shift stick. Electric vehicles don't have engines spinning, with gears required to increase/decrease power demand. They simply start and stop. It might help to think of driving one as being closer to Scalextric than an Internal Combustion Engine vehicle. Of course, if you're used to driving a vehicle with automatic transmission, you should feel at home in an electric vehicle in no time.

3) Eco modes

To help battle "range anxiety" our e-Golf has a series of driving modes, that restrict energy

consumption and help us to achieve our stated range of 144 real-world miles from a full charge. These modes are:


Normal	Has no restrictions. We've no idea what the top achievable speed of the vehicle is, but you can reach it using this mode.
Eco	Restricts your speed to 70mph.
Eco+	Restricts your speed to 60mph and "severely limits" comforts, such as heating/air-conditioning.


4) Range drain

Internal combustion engines generate a lot of heat, so lots of heaters in these vehicles take advantage of this fact, and simply blow this hot air into the vehicle, rather than directing it outside. An electric vehicle has no such excess heat, so switching on the heater depletes the mileage quite significantly.

We drove our e-Golf for 1 mile from a charging station back to the office, uphill, with the heater on, windscreen wipers on, and headlamps on. Our range depleted by 2 miles. Bear this in mind when planning journeys at night in winter. Definitely adopt our "Dress for the weather" Smarter Driving tip, overleaf.

5) Refuelling

 As well as plugging our e-Golf into our office's supply, using a familiar 3-pin plug, we can also use a "type-2" charging lead to plug into any charging points with this type of connection.



Once you start noticing EV charging points, you'll soon realise they really are popping up everywhere. Some are free to use, e.g. you may find a local supermarket permits its customers to charge their vehicles while shopping. Most charging points will charge a fee. You may find you have to create an account, and top up that account, before you can start using the charging point. Don't worry though, so long as you have a smart phone with an internet connection, you should be able to download any apps, and make payments there and then.

Before starting your charge, you'll see the charging speed noted, letting you know how long you'll need to charge for. Some 'fast-charge' points are being installed now at 150kW, which is fast enough to fully charge our e-Golf in about 15 minutes.