

# Living with an Electric Vehicle



Do you have off-street parking where you can install a charge point? In that case, for the way most people use their cars, there's little to stop you buying an EV as your next car, new or used.

## A 'local' car, with few long journeys

Most EVs can now handle journeys of 120 to 200 miles without charging. If you only use your car (or your second car) for 'local' journeys then you'll rarely need to charge away from home. The Lake District, for example, is about 160 miles away, so you can make many journeys in the UK in a single hop, only needing to recharge at your destination.

If you need to make the odd longer journey, even EVs that rapid charge as slow as 40 kW<sup>1</sup> will cope (most charge faster than this). At 40 kW, charging for 40 to 60 minutes will add about 100 to 150 miles of range. You'll save this time over a year by not visiting petrol stations!

## Charging at home

For now, it's best to install a 7 kW charge point at home<sup>2</sup>, which should cost under £1,000 installed. EV electricity tariffs charge about 10 p/kWh for 4 (or more) hours overnight, which works out at around 3 p/mile, saving you over £1,000 for every 10,000 miles travelled.

## Regular longer journeys and range

If you need to make regular longer journeys, buy an EV that charges at 100 kW or faster, and stop at chargers that support ultra-rapid charging. Charging speed is the key parameter, rather than range, as you'll usually need to stop for a break before the EV needs to be charged. 100 kW adds around 100 to 150 miles of range in about 20 minutes. Drive for 2 to 3 hours and then charge while you pop to the loo.

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<sup>1</sup> Power (rate of energy use) is measured in kW - a kettle takes about 2kW. Energy is measured in kWh - boiling a kettle for 1 hour consumes 2 kWh.

<sup>2</sup> If you don't have off-street parking, Connected Kerb has installed a number of charge points in the Listley Street and Severn Street car parks, which give residents access to lower price electricity overnight.

## Charging on a journey

What would you do if you'd never seen a petrol pump and arrived at one during your first drive in a petrol-engined car? Do practice rapid charging and plan before your first long journey in an EV, or you'll have problems.

You'll set off with a full charge and could use most of your car's range (down to about 20%) before charging, but you'll probably need to stop for a break well before that. Before setting off, use [Zap-Map](#) or [Electroverse](#) to find a few alternative rapid chargers around where you expect to stop. If one is occupied or not working, go on to the next.

Stick to reliable networks, such as Instavolt, Osprey, Gridserve and Ionity. Use the filter on Electroverse to look for locations with more than one charger. Avoid motorway service stations, unless they have a large bank of chargers, as everyone seems to stop at them and the chargers are often occupied,

as inexperienced EV drivers stop there and are surprised when the single charger is occupied. There are plenty of chargers just off many motorway junctions.

To pay, RFID cards from Shell Recharge and Electroverse are sufficient, along with contactless credit cards. Apps are an alternative / backup.

## Cost

Charging at home costs around 3 p/mile, compared to over 13 p/mile for an efficient petrol car. There's no road tax to pay and servicing costs are low (there's no oil or timing belt to change) and EVs have far fewer moving parts.

EV's needn't cost a lot more than a petrol-engined car. For example, 2020 Peugeot e208 EVs with around 20,000 miles are currently listed on AutoTrader from about £15,000, while similar 208 1.2 litre petrol cars are from about £13,500. You'll make back that difference in lower running costs. And the EV is far nicer and more fun to drive.

You can buy a 2020, low-mileage EV capable of regular long journeys from around £20,000. A new EV capable of adding over 400 miles of range in one hour's rapid charging will cost from about £40,000, which is comparable to many new cars.

***Come along to a Sustainable Bridgnorth meeting to contact EV users who can give you more advice.***