

The EV Starter Guide: Tips for First-Time Drivers

FleetWise has compiled a comprehensive guide for new electric car drivers, sourcing information from our team on trusted experts to deliver essential tips for efficient driving and effective charging strategies.

Driving an electric vehicle (EV) introduces new considerations that may not have crossed your mind before. From charging at home to planning your routes with apps like Zap-Map, the electric driving experience is unique and different from traditional cars. Here are some of the best tips for those new to the world of EVs.

How to Drive an Electric Car Efficiently

Driving an electric car efficiently often starts before you even step into the vehicle, or even before you've purchased one.

1. Understand How You'll Use Your EV

It's essential to consider your driving habits and how your EV will fit into your routine. Are you using it for short commutes, or will it be your family's go-to vehicle for longer trips?

Understanding your daily mileage, driving patterns, and typical journey types will help you better plan your charging needs and select the most suitable EV.

Think about where you can charge while going about your routine. For example, can you charge at work, while doing your weekly shop, or at the gym? Understanding where chargers are located and how long you'll spend at those places (whether you need a rapid charger for short stays or a destination charger for longer stays) will optimize your charging efficiency.

2. Get to Know Your EV's App

Most modern EVs come with manufacturer-specific apps that can make managing your car easier. These apps often allow you to remotely start or stop charging, monitor your car's battery status, or even precondition the cabin by heating or cooling it before your journey.

Understanding and utilizing these app features can save time and improve efficiency.

For instance, in cold weather, preconditioning your car while it's plugged in can defrost your windows and heat the car without draining the battery during the drive.

3. Maximise Your Car's Range

To get the most out of your EV's battery, several strategies can help you extend your range:

- **Check Tyre Pressure:** Under-inflated tyres increase resistance and reduce efficiency.
- **Reduce Extra Weight:** Carrying unnecessary weight in the car reduces range. Only take what you need for each journey.
- **Use Eco Mode:** Many EVs have an eco-mode that moderates acceleration and reduces energy consumption.
- **Use Regenerative Braking:** This system recycles energy back into the battery when you decelerate, saving you power and extending range.
- **Adjust Your Driving Style:** Reducing your speed and driving smoothly helps protect the range, especially on longer journeys.

4. Factors impacting your vehicle's range - In cabin systems:

- a) Heating: In cold temperatures, the cabin heater is one of the largest energy drains. The heater can reduce range by 10-30% depending on how cold it is.
- b) Cooling: Running the air conditioner on a hot day also drains the battery, though generally, air conditioning is less of a burden on battery range compared to heating. The range reduction due to air conditioning typically ranges from 5-15%, though this can be higher in extreme heat conditions.
- c) Infotainment Systems: High-powered entertainment systems, navigation, or even running multiple apps on the dashboard display can drain some battery power:
 - Lights: Though LED lighting is more efficient than traditional bulbs, extended use of exterior or interior lights can slightly reduce range, especially in areas with frequent use of headlights or auxiliary lights.
 - Heated Seats and Steering Wheel: These features, while convenient in cold weather, also consume energy from the battery, though generally much less than the heater.
 - Window Defrosters: Like other heating elements, using the front or rear window defrosters can pull additional energy, contributing to a slight range reduction.

Factors impacting your vehicle's range - Driving styles and conditions:

- Aggressive Driving: Rapid acceleration, high speeds, and aggressive braking increase energy consumption. EVs perform best in terms of efficiency at moderate speeds with smooth driving.
- Terrain: Driving uphill or on hilly roads requires more energy, while downhill driving allows regenerative braking to recapture some energy, but steep climbs can put a strain on the battery.
- Tire Pressure and Load: Under-inflated tires or carrying heavy loads reduces the vehicle's efficiency, leading to higher battery consumption.
- Wind Resistance: High-speed driving increases aerodynamic drag, especially when driving on highways. The faster the vehicle goes; the more energy is needed to overcome wind resistance.

5. How to Charge Your Electric Car

Charging is a core aspect of owning an EV, and while it provides flexibility, it comes with added complexity. Understanding the different types of chargers and charging strategies will ensure a smooth experience.

a) Charge at Home if Possible

Charging at home is often the most cost-effective and convenient option. If you have a driveway or garage, consider installing a smart home charger. Many UK energy suppliers offer EV-specific tariffs, providing cheaper electricity during off-peak hours (often at night), saving you money. Aim to charge your car overnight and use off-peak rates to reduce costs.

b) Keep Your Battery Between 20-80%

For regular use, try to keep your EV's battery charged between 20-80% to maintain its health and longevity. Regularly charging to 100% is only necessary for long trips. Most EVs allow you to set a charging limit in the app or in-car system.

c) Familiarise Yourself with Charging Types

EVs can charge in various locations—at home, work, or public charging stations—and there are four main types of charging speeds:

- Slow Charging (3-7kW): Ideal for home charging, taking several hours to fully charge a car.
- Fast Charging (7-22kW): Commonly found at supermarkets or gyms, these can charge your car in a few hours.
- Rapid Charging (50kW): Available at public charging hubs, rapid chargers can bring your battery to 80% in 30-40 minutes, ideal for longer trips.
- Ultra Rapid Charging (100kW+): Found at motorway service stations or EV hubs, these can deliver a quick top-up for long-distance journeys.

Use apps like Zap-Map to understand the types of connectors available (e.g., Type 1, Type 2) and plan your routes accordingly.

d) Explore Community Charging

If you cannot install a home charger, alternatives like peer-to-peer charging networks (e.g., Co Charger) offer an excellent solution. You can book a neighbour's charger and leave your car there overnight, providing flexibility even if you don't have your own charger.

e) Develop a 'Charging Routine'

If home charging isn't an option, it's vital to develop a charging routine. Identify charging points at places where you spend a long time (e.g., work, the supermarket, or the gym), and plan your charging around those times. Regularly top up your battery rather than waiting until it's low, which makes charging more manageable.

f) Plan Routes with Charging Options

When going on longer trips, always plan your routes in advance using apps like Zap-Map or PlugShare. These tools help you locate chargers, check availability, and even plan alternative options in case your first choice has a queue or is out of service. It's wise to have backup chargers planned along your route to avoid delays.

Join the EV Community

Engaging with the EV community—whether online or in person—can offer valuable insights on charging locations, maintenance tips, and maximising your car's efficiency. By tapping into shared experiences, you'll better navigate charging networks, plan routes, and uncover helpful tips, ensuring you get the most out of your electric vehicle.

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