Electric vehicles

Electric vehicles are vehicles that are fully or partly powered by an electric motor.

Electric vehicles include cars, vans and motorcycles. Collectively these vehicles are known as Ultra Low Emission Vehicles. These vehicles use electricity although a small minority use alternative fuels like hydrogen.

Types of electric vehicles

Electric vehicles are growing in popularity (electric vehicle figures for Northern Ireland) and will help to reduce carbon emissions from transport. This will contribute to government targets towards net zero emissions. Environmentally, the manufacture and running of an electric vehicle during its lifetime leaves a much smaller carbon footprint than a petrol or diesel vehicle.

Battery electric vehicle

A vehicle powered only by electricity. The battery is charged by an external power source and incorporates regenerative braking which helps to extend the available range.

Plug-in hybrid electric vehicle

Retains a petrol or diesel engine, and also has a battery which is larger than a Hybrid and therefore improved electric range of up to 50 miles. It can be driven with either the petrol or diesel engine, electric motor, or both simultaneously. The battery can be recharged by an external power source.

Hybrid (also known as a self-charging hybrid)

Has a petrol or diesel engine as the only means of propulsion and a small battery and an electric motor to boost efficiency.

Extended range electric vehicle

A vehicle which combines a battery, electric drive motor and a small petrol or diesel generator. The electric motor always drives the wheels with the internal combustion engine acting as a generator when the battery is depleted.

How much do electric vehicles cost?

The initial upfront purchase price of an electric vehicle tends to be higher than its petrol or diesel equivalent. However electric vehicles have lower running and maintenance costs.

Where can consumers buy an electric vehicle?

Electric Vehicles, like petrol or diesel vehicles, can be purchased from most car or vehicle dealerships and can be bought second-hand.

Grants or financial assistance available

Some new low-emission hybrid or electric vehicles (EV) are eligible for a government plug-in grant.

You do not apply for the grant. The seller includes it as a discount in the purchase price.

Only vehicles that have been approved by the government are eligible. The discount you can get depends on the type of vehicle.

The types of eligible vehicles are:

- wheelchair accessible vehicles
- cars
- motorcycles
- small and large vans
- small and large trucks
- taxis

You do not apply for the grant. The seller includes it as a discount in the purchase price.
More information on low-emission vehicles eligible for a plug-in grant.

Salary sacrifice - you may also benefit from an electric vehicle through a salary sacrifice scheme. This can be considered a benefit-in-kind.
More information on salary sacrifice schemes: How can electric car drivers benefit?

Charging an electric vehicle

Charge time / range
The amount of time it takes to charge an electric vehicle depends on the size of the battery and the speed of the charging point.

- A typical electric vehicle with a 60kWh battery takes just under nine hours to charge from empty-to-full with a 7kW charging point.
- Home charging with a 7kW charging point will add up to 30 miles of range per hour of charging.
- Drivers often top up charge rather than waiting for their battery to recharge from empty-to-full.
- For many electric vehicles, you can add up to 100 miles of range in around 35 minutes with a 50kW rapid charger. The bigger the battery and the slower the charging point, the longer it takes to charge from empty to full.

The main ways to charge an electric vehicle are at home or using a public charge point. Some workplaces also provide charge points for employees.

Charging at home
Charging at home is the most convenient and cheapest option.
More information on charging costs is available on **here.**

To charge an electric vehicle at home, it is recommended to install a home charging point.

A home charging point is a compact weatherproof unit that mounts to a wall with a connected charging cable or a socket for plugging in a portable charging cable.

For homes without access to off-street parking the Department for Infrastructure have launched electric vehicle charging solutions for across pavements.

The solutions are:

- Option one: an ‘engineered channel’, where the footway is excavated to install a shallow channel that extends across the footway from the property to the kerb line, with a cover that allows the cable to be inserted and retracted.
- Option two: where a cable cover is temporarily placed on a footway. The introduction of this second option will be facilitated through a six-month rolling pilot which will allow ongoing monitoring and evaluation.

For more information, visit NI Direct's website, **here**.

Installing a home charging point
Dedicated home charging points are installed by qualified specialist installers. It is a legal obligation to notify Northern Ireland Electricity Networks (NIE Networks) of the installation of a charge point.

The installer will be required to provide capacity and testing information on the charger, so it is important to find a suitably qualified installer. NIE Networks has an **Electric Vehicle Drivers Guide to Charging at Home** which includes information on notifying NIE Networks of an electric vehicle charger installation.

The typical cost of a home charge point is around **£800-£1500**. Once installed, you only pay for the electricity you use to charge.

With the **electric vehicle chargepoint grant** you can get up to £350 towards the cost of installing a chargepoint at your property. It is subject to criteria such as living in a flat that you own, you rent a residential property or **for households with on-street parking**. **From 1 April 2026 the maximum grant will increase from £350 to £500 per socket.**

Your electricity bill

If you are charging your electric vehicle at home, your electricity bills will increase. As an electric vehicle driver, it is therefore very important to shop around to make sure that you are on the right electricity tariff - check if your energy supplier has a specific electric vehicle tariff or time of use tariff available. For example, electric vehicle owners on time of use tariffs such as Economy 7 or Powershift can save money by charging the electric vehicle at night when electricity is cheaper. If you do change to a time of use tariff, make sure to check with your supplier what hours you get the cheaper rates.

The Consumer Council has an online price comparison tool that can help consumers shop around for the best electricity deals. Our tool doesn't currently compare time of use tariffs, but you can find information about these tariffs on our price comparison tables to help you find the best prices.

Public charge points

Public charge points are located throughout Northern Ireland and are most useful for on-the-go charging or if you do not have a home charge point.

Charge point operators include BP Pulse, EasyGo, ESB, Instavolt, Ionity, Maxol, Tesla and Weev.

Zapmap is a useful resource which helps you locate a charge point.

The main types of public charge points are slow, fast, rapid and ultra-rapid. There are also different types of connector: Type-1, Type-2, CHAdeM0, and CCS. It is important to understand the differences between charge point types and when is best to use each

type.

	Slow	Fast	Rapid	Ultra-Rapid
Power rating	3-6kW	7-22kW	50kW or higher	Typically either 100kW, 150kW or 350kW
Electrical supply type	AC	Usually AC, DC available at higher rates	DC	DC
Charge time	4-8 hours	2-4 hours	25-40 minutes (80% charge)	20-30 minutes (for a typical charge)
Vehicle range added in 15 minutes	3-6 miles	6-20 miles	35-40 miles	
Connector*	Type-1 Type-2	Type-1 (max 7kW) Type 2	CHAdeMO, CCS, Type-2	CCS or CHAdeMO
Best use	Work/ home	Home/Work/on-the-go	On-the-go/long journeys	On-the-go/long journeys
Electric vehicle compatibility	All	All, some vehicles may charge slower than others	Dependent on the connector type. Not all battery electric vehicles and very few plug-in hybrid are capable of accepting a rapid charge.	An electric vehicle which is only able to accept a maximum of 50kW DC can still use ultra-rapid charge points. The power will be restricted according to what the vehicle can deal with.

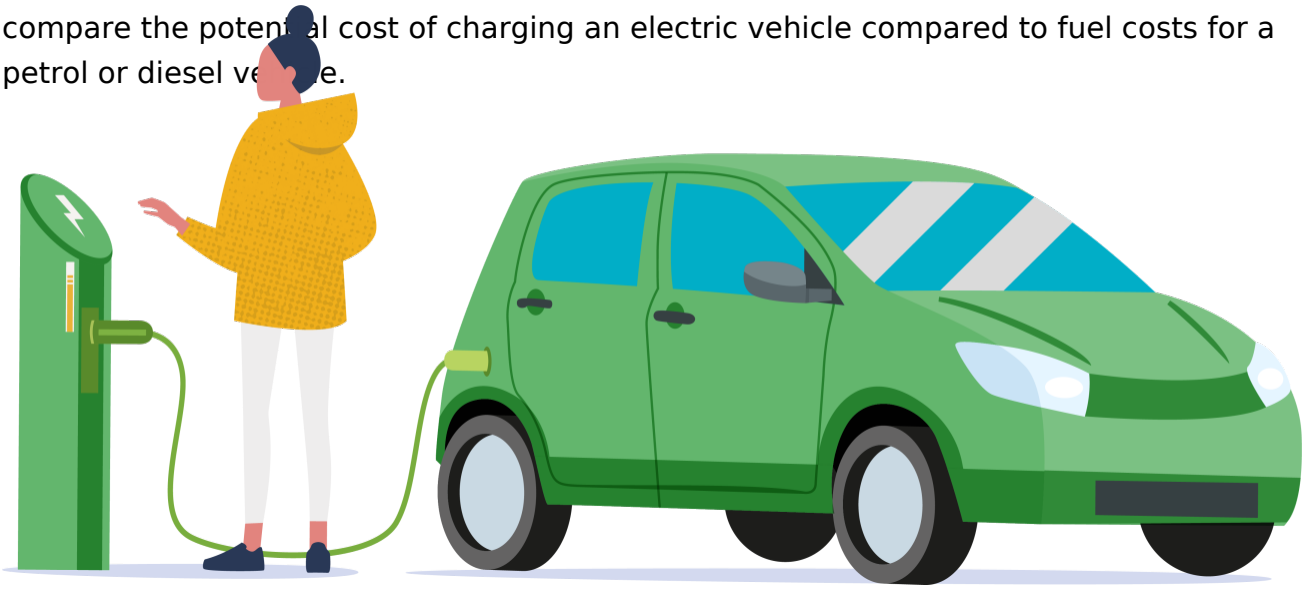
* Type-1 and CHAdeMO are now older standards and nearly all new cars now come with Type-2 or CCS.
More information on electric vehicle charging from Energy Saving Trust.

Cost of electric vehicle charging compared to petrol and diesel

In comparison to petrol and diesel, the price to charge an electric vehicle tends to be favourable:

- home charging is the cheapest option compared to public charging
- using rapid/ultra rapid chargers on the public network can be more expensive compared to petrol

Use our Charging with electric compared to fuelling at the pump tool to help you compare the potential cost of charging an electric vehicle compared to fuel costs for a petrol or diesel vehicle.



Tool

Cost of electric vehicle charging compared to petrol and diesel

Use our charging with electric compared to fuelling at the pump tool to help you compare the potential cost of charging an electric vehicle compared to fuel costs for a petrol or diesel vehicle.

Charging with electric compared to fuelling at the pump tool

Maintenance costs

Battery electric vehicles maintenance costs are typically much lower than petrol or diesel vehicles. Fewer moving parts requires less maintenance especially as the car gets older.

As a plug-in hybrid electric vehicle retains a petrol or diesel engine it will have similar maintenance requirements to traditional petrol and diesel vehicles.

HEVRA- Hybrid and Electric Vehicle Repair Alliance offers advice on independent electric vehicle repair and servicing options including assistance in finding a suitable garage near you.

MOT

Electric vehicles have to pass an MOT test when the vehicle is three years old just like other cars but unlike their petrol or diesel counterparts, electric vehicles do not require an emissions or noise test.

Tax

Electric, zero and low emission cars, vans and motorcycles are now subject to the vehicle tax rates that were introduced on 1 April 2025.

This change applies to both new and existing vehicles. The amount you'll need to pay depends on the type of vehicle and when it was registered.

More information on vehicle tax for electric, zero and low emission vehicles on the GOV.uk webiste

Insurance

Most motor insurance companies offer insurance for electric vehicles. Shop around to get the best deal.

Whilst there are no set differences between electric and petrol or diesel car insurance it is worth doing some research to understand the issues relevant to electric vehicle insurance.

Useful contacts

Electric Vehicle Association Northern Ireland

Electric Vehicle Association Northern Ireland aims to promote electric vehicles in Northern Ireland and represent the interests of their users.

EVANI – Electric Vehicle Association Northern Ireland

Energy Saving Trust

Promotes policymaking and provides information to consumers.

- Energy Saving Trust
- 02892 449819 or 02892 449820

Northern Ireland Electricity Networks

Northern Ireland Electricity Networks (NIE Networks) owns the electricity transmission and distribution network and operates the electricity distribution network which transports electricity to over 860,000 customers.

03457 643 643Northern Ireland Electricity Networks

Office for Zero Emission Vehicles

The Office for Zero Emission Vehicles is a team working across government to support the transition to zero-emission vehicles (ZEVs). It provides support for the take-up of plug in vehicles, as well as funding to support chargepoint infrastructure across the UK

Office for Zero Emission Vehicles

Other transport and travel information

Public transport

Advice and information about public, accessible and community transport including information about traveling with a disability or reduced mobility, and finding the best value fare.

Active and sustainable travel

Advice and information on walking, cycling and multi-modal travel

Electricity price comparison tool

You could save money by switching supplier, switching billing method, or switching tariff. Use our price comparison tool to make sure you are on the best deal for you.

Bills and metering

Learn how to understand your electricity and gas bill, and how your meter works.