

CONSUMER CODE FOR HOME CHARGEPOINTS

Thinking of getting a home chargepoint for your EV?

An introduction from the Electric Vehicle Consumer Code for Home Chargepoints





ABOUT EVCC

The Electric Vehicle Consumer Code for Home Chargepoints (EVCC) sets the standards consumers can expect when purchasing an EV chargepoint from an installer who is an EVCC member. EVCC's standards ensure consumers can be confident when making a purchasing decision, knowing that their chosen installer must comply fully with EVCC for the whole of your purchasing journey, from the way in which they advertise themselves, to the way in which they handle a complaint if things go wrong.



https://www.electric-vehicle.org.uk/

EVCC was developed by Renewable Energy Assurance Ltd (REAL), a wholly owned subsidiary of the REA, the largest association for renewable energy and associated clean technology in the UK. REAL operates a number of certification schemes and consumer codes, including the Renewable Energy Consumer Code, all of which promote sustainable energy in the renewable energy and circular economy sectors. REAL developed EVCC to help manufacturers, suppliers and installers offer high standards to consumers, and to empower consumers by giving them the knowledge and confidence to opt for and invest in private charging.



Thinking of getting a home chargepoint for your EV?

When you buy an Electric Vehicle (EV), or even when you buy a solar PV system, you may be offered the option of having a home chargepoint installed as well. This guide has been produced to help you decide if an EV home chargepoint is right for you.

Charging your EV at home

If you're contemplating becoming, or already are, the proud owner of a Battery Electric Vehicle (BEV) or plug-in hybrid electric vehicle (PHEV), you will probably want to be able to charge it at home as well as at public charging points.

It is possible to charge your EV at home from any standard domestic 13A socket using a 3-pin charging lead BUT:

- many wall sockets are ageing and consumer protection charity Electrical Safety First strongly advises against using a standard 13A plug and socket to recharge an EV on a regular basis. EV chargepoints come with safety features built-in.
- the supply from a household socket will typically take significantly longer to charge an EV than using a chargepoint.

A home chargepoint is safer and quicker than using a domestic plug socket. Unsurprisingly, then, manufacturers of EVs are recommending that users have an approved EV chargepoint installed at home when they buy an EV

They are also generally compact and weatherproof so can be located outside, typically mounted on an utside wall and come with a 3-year or even 5-year manufacturers warranty. Installation normally takes no more than a few hours, during which power may have to be off for a short time

The Energy Saving Trust has produced a short video on home chargepoints that you can view on YouTube (nb the grant scheme referred to in the video has been replaced with the EV Chargepoint grant – see 'OZEV, on p.XXX). <u>https://youtu.be/yja_Q7w5zts?list=PLk5HJfULJ4GxbvOHY19ZJONIahOb4nm1H</u>





The benefits: quicker, safer, cheaper

Home chargepoints are faster and safer than charging via your home's 3-pin wall socketl. And they help reduce the cost of running a car.

Faster

If the vehicle allows, a dedicated EV chargepoint can cut the time it takes to charge your car by half or more. And the higher the power rating of the unit, the faster the charging will be. They will also switch off once the car is fully charged.

How long it takes to charge an EV via a home chargepoint depends upon two things: the charging capacity of your car and its battery and the power output of your home chargepoint itself.

EV chargepoints for home use are usually available as 16A/3.6kW (standard) and fast (32 amp, 7kW). Some chargepoints offer both in the same unit. No chargepoint can charge a car faster than the EV's charging rate allows, however. If your EV has a 3.3 kW on-board charger/interface, then even if you plug it into a home chargepoint rated at 7 kW, the car will only be able to receive electricity at 3.3 kW. Most modern EVs though have high on-board charger ratings.

If your EV allows, a 7kW option will charge your car's battery roughly twice as quickly as a 3.6kW chargepoint. And either will charge an EV quicker than if you simply plug it in at home. As an example, to charge a 40kWh Nissan Leaf battery fully from empty giving around 150 miles of driving takes:

- Around 17 hours on a 3-pin point at home
- around 11 hours using a 3.6kW charger or
- close to 6 hours using a 7 kW unit.



EVs with bigger batteries will take longer.¹

Safer

A dedicated chargepoint will be on its own new circuiit, safer to use on a day-to-day basis than plugging in regularly to your possiby aging wall-sockets

And the manufacturers of approved chargepoints have an obligation to ensure they meet the standards and requirements set out in minimum technical specifications. They must meet European electrical safety standards and provide safety features such as Residual Current Detection (RCD Circuit Breakers) and spike voltage protection.

Cheaper

EVs are cheaper to run per mile than petrol or diesel cars even on a standard home electricity tariff but a smart chargepoint makes it easy to run them even more cheaply if you sign up to an EV-friendly electricity tariff.

What it will cost you to charge your EV depends on:

- what you're paying for electricity;
- when you charge the EV, if you have 'time-of-day' tariffs, and
- if you have a solar PV system, on how much of the energy it generates you can use to charge your EV.

On a standard home electricity tariff, the cost of charging an electric car per mile of driving is around half the cost of fuelling the average petrol/diesel car at current prices. Even charging at public chargepoints will save you hundreds of £££s. The biggest savings though come from using a home charger on an EV tariff, potentially saving several hundred pounds over a petrol or diesel car in the course of a year.

EV energy tariffs generally have differing rates during day (peak) and night (off-peak) hours. Lower tariffs are typically applied during the night rate, allowing you to charge your vehicle overnight at a lower cost. Many energy suppliers now offer specific tariffs tailored to EV owners, with differing costs, benefits and off-peak hours available (see 'EV tariffs').

Charging your EV at home will cost you a lot less per mile than filling up with petrol, but it will also increase your electricity bill, potentially quite significantly. ² This may be offset to some extent by opening up opportunities. A programmable smart chargepoint may make it easier for you to participate in 'flexible energy' schemes that aim to shift demand for electricity away from periods of strain on the grid and/or towards times when more renewable energy is available. This was the idea behind National Grid's Demand Flexibility Scheme for winter 2022 where participating consumers were rewarded for reducing or eliminating their demand for electricity at certain times of the day.

¹ For example, the <u>Tesla Model X</u>, <u>Tesla Model S</u>, <u>Audi e-tron</u>, <u>Jaguar I-Pace</u>, <u>Mercedes EQC</u> and <u>Tesla Model 3 Long Range</u> <u>and Performance models</u> all have batteries between 75-100 kWh..

² Good Energy looked at its energy customers who were EV drivers : 'we noticed they used more energy than average. Actually, the average EV household used around 6,500 units of electricity, compared to the UK average of 3,100 units.'



You may even be able to 'rent out' your chargepoint to other EV drivers using so-called 'peer to peer' platforms such as Zap-Map's Zap-Home and Zap-Work or Bookmycharge or the Co Charger app.

https://www.zap-map.com/ev-guides/public-charging-point-networks/zap-home-network

https://bookmycharge.com

https://co-charger.com



EV tariffs

With a smart chargepoint and a smart tariff package, that has a cheap off-peak rate, you can programme your device to charge your EV at the most economical time whenever that arises.

Many energy suppliers now offer specific tariffs tailored to EV owners with smart meters. EV tariffs have what are known as 'Time of Use' tariffs ie the rate you pay varies according to the time you use the electricity (rather than just being the same price per unit whenever you use it). The longstanding Economy 7 is a simple 'time-of-use' tariff, for example, with two rates: one (significantly cheaper) rate for electricity used in the 7 hours at night, and another higher rate for electricity used outside of those 7 hours.

Generally EV tariffs have higher rates than a standard tariff for peak-time use and lower than standard rates for offpeak (typically night-time after the evening peak).

ZapMap website has a list of EV tariff offers, with links to the companies for further details: <u>https://www.zap-map.com/charge-points/ev-energy-tariffs/</u> (Nb Not all cars are compatible with all of the tariffs on offer.)

The tariffs apply to all the electricity usage in your home so it's important to consider when you use electricity around the house when deciding if an EV energy tariff is right for you. While they can be very cheap in off-peak hours, for instance, there are likely to be higher-than-normal prices during the day. And what counts as 'off-peak' varies from supplier to supplier: off-peak can be just a few hours from around midnight or up to seven hours or even from late evening for 10 hours until 7 am; it can be off-peak all day at the weekend etc. Tariffs that are not the cheapest but that have longer off-peak hours may suit you better than ones with the cheapest off-peak rate but the shortest period for which they apply.

How they work

Charging an EV from a chargepoint is a simple process, pretty much like charging your mobile phone with a charger: you connect the car to a source of electricity via a cable, switch on and the chargepoint does the rest ^{.3}

You plug one end of a charging cable into the chargepoint and the other end plugs into the vehicle's socket (aka its 'inlet'). Your EV has a particular type of socket and the cable that comes with the car has a plug or connector on the end that fits that type of socket - just like a 3-pin plug fits a 3-pin socket at home (See 'Sockets and Connectors' overleaf).⁴

Some, though not all, can work with solar-PV. Those than can need to charge at a lower power rate to suit solar PV production levels when that's available and at a faster rate at other times.

Chargepoints can be programmed to meet your needs. For example, you can set:

- the battery level to which you want to charge your vehicle;
- the time by which you want the charge level to be completed; and.
- the minimum battery level you don't want your vehicle to fall below.

Smart

All EV chargepoints for sale in the UK now have to be 'smart', that is they need to conform to the government's Electric Vehicles (Smart Charge Points) Regulations. Among other things, this means they must be able to send and receive information across a secure networkbe able to delay charging or vary their charging rate in response to external signals.come with a pre-set default charging hours outside of peak hours.

They can be set to charge the EV overnight and/or at times of cheaper off-peak electricity tariffs or when the grid is greenest, using an app on your phone.

And they can be monitored remotely, allowing you to check on it, to change settings or to switch charging on or off without being present.

And they can allow householders to open the chargepoint to others to generate revenue.

Sockets and connectors

Chargepoints and EVs have sockets into which a charging cable is plugged, one end plugging into the car and the other connecting to the chargepoint. There are different types of connectors and sockets (see below).

³ Inductive, or wireless, charging uses an electromagnetic field to transfer energy between an electric car and a charging pad through electromagnetic induction. This promising technology would do away with charging cables. The first cars with inductive charging capabilities are expected to be introduced in the near future.

⁴ EVs can be supplied with **two** cables, one for use with slow charging outlets (at home or at public slow and fast chargepoints) and one for fast AC 'rapid' chargers.



The cable that comes with the car has a plug or connector on the end that fits the type of socket the car has and you connect the other end to your chargepoint. Or is if your chargepoint comes with a cable already connected (or 'tethered'), you just plug the other end of the cable into your EV.

Connectors

Type 1

Mainly found in North America but also in Europe on older EV models, Type 1 has a 5-pin plug (see picture, left). If you have an older EV with a Type 1 socket, one of the cables in the boot will have a Type 1 plug at one end and a Type 2 plug at the other. You push the Type 1 plug into your car, and the Type 2 plug into the charging point.





Type 2

Type 2 or Mennekes connectors are the norm in Europe for charging your EV at home on a standard AC electricity supply. Type 2 connectors have a 7-pin plug (see picture, right).

Most modern EVs come with a Type 2 socket for home charging. Some EVs have Type 2 sockets that also allow rapid charging at public chargers. ⁵ According to Co-charger, the vast majority of home chargepoints are also Type 2.

In the UK, a Type 2 charging point on a single-phase electricity supply at home allows you to charge your car at a maximum of 7.4 kW. On a 3-phase electricity supply – the kind you might find at work – Type 2 charging points can charge at 22 kW. (Practically all new charging points at supermarkets, hotels, etc., will be Type 2 untethered sockets.) However, your car's onboard circuitry may not allow for charging at such a fast speed.

Sockets

Sockets in the car are either CCS or CHAdeMO currently.

CCS

Nearly all manufacturers now use the Combined Charging System (or CCS) sockets on their new models. The CCS socket combines both a rapid charging socket and a Type 2 or a Type 1 socket in one eg a type 2 AC connector at

⁵ e.g. Renault Zoe offers normal home AC charging up to 7.36 kW, but also rapid AC charging at 43 kW at certain public chargers. Tesla's adapted Type 2 socket, found in the Model S and Model X in Europe, allows both charging at home on a normal house AC electricity supply, but also rapid charging using DC electricity.



the top and the CCS DC connector at the bottom (as seen in the left-hand picture, below).

CCS sockets permit rapid DC charging when you are away from home eg at a motorway service station chargeoint. You connect the cable to the bottom DC connector. When you're charging at home, you plug in your normal Type 2 plug into the upper half.





Type 2 AC socket top, CCS DC socket bottom

CHAdeMO socket left, Type 2 socket right

CHAdeMO

CHAdeMO is a rival to the CCS standard for rapid DC charging found on certain new models and a few older models. An EV with a CHAdeMO socket will have a separate Type 1 or Type 2 socket for home AC charging.

CHAdeMO is a bi-directional charger. This means electricity can flow both from the charger into the car, but also the other way from the car into the charger, and then on to the house or grid. This allows so-called "Vehicle to X" energy flows (see 'The Future: exporting electricity from an EV on p. XXX). Potentially, with the right infrastructure, you could power your house using electricity stored in the car's battery. Alternatively, you can send the stored electricity to the grid and get paid for it.

Tethered v untethered

Chargepoints either come with a cable attached ('tethered') or without ('untethered').

Untethered or 'universal'

Chargepoints that come without a cable attached, sometimes described as 'untethered', accept the cable that comes with your car via the 'universal' socket on the chargepoint. When the charge is finished you can disconnect the cable and take it with you to use elsewhere (eg at a public chargepoint).

'Tethered'

Alternatively, you can 'fill up' from a chargepoint that has its own cable attached (or 'tethered'), rather like filling a petrol car from a petrol pump. The tethered cable, which can be coiled on the wall next to the chargepoint, comes with a specific plug that fits your car's socket. So it will work with your EV and other EVs with the same type of socket.



UNTETHERED



TETHERED



Can I have an EV chargepoint at home?

Some homes are not suitable a domestic chargepoint. An EV chargepoint installer should carry out a survey to determine whather yours is.

RightCharge, a chargepoint comparison website that links with installers, describes the typical survey process: 'an installer [will] ask for a couple of photos of your house, including your fuse cupboard, and where you would like the charger to go. They will use this to conduct a remote 'survey' and provide a quote for the charge and installation.' You may be asked to upload details and photos to an online form.

A qualified electrician will need to consider a few key issues to determine whether you can have an EV chargepoint at home:

- whether it is safe to add an EV to the demands on your electricity supply
- whether you have somewhere suitable to locate the chargepoint and your EV while it's charging, and
- whether you need permission to install it.

Location

The charger units themselves are fully weather- and water-proof, so can be located outside. But an installer must assess if the space allows an EV to charge safely.

The ideal situation is:

 you have designated private off-street parking such as a garage, driveway or carport with good access for an EV.⁶

⁶ This is a requirement to be eligible for the Office of Zero Emission Vehicles grant for a home chargepoint – see 'OZEV'.

- you can site the chargepoint sufficiently close to where you keep your EV so that the charging cables, usually 5-10 metres long, can reach it. For safety reasons, you should not use an extension lead to extend this: consumer protection charity Electrical Safety First warns EV owners to 'never use a domestic multi socket extension lead when charging your electric vehicle.'⁷
- The chargepoint can be installed at a suitable height. For safety and accessibility reasons, and to avoid damage from vehicle bumpers, the chargepoint should be installed at a height that conforms with Wiring Regulations neither too low (less than 0.5m from the ground) nor too high (more than 1.5m above the ground).

Safety

Charging an EV adds to the demand for electricity in your home and overloading the electrical installation at a property could result in a fire. So It's very important to be sure that your existing electric cabling, sockets and the main household supply fuse will be able to carry the additional current drawn by the EV, and that there are adequate safety cut-outs.⁸

The chargepoint also needs to have a dedicated circuit.

A qualified electrician, preferably one trained in installing EV supply equipment (or EVSE), can assess whether your electricity supply is adequate to deal with charging an EV on top of your existing electricity load.⁹ Some, but not all, chargepoints are capable of managing the power drawn from your electricity supply so as to keep within the property's limits.

Permissions

It is your responsibility to ensure that you have any necessary permissions to install a home chargepoint. Some of the authorities you may or do need to get permission from include:

Local authorities

In most cases, you won't need planning permission to install an EV chargepoint as they are 'permitted developments', though you may want to double check with your local authority planning officer.

You will need planning permission if the installation is:

• near a highway

 ⁷ Electrical Safety First also warns: 'Never 'daisy-chain' extension leads. The method of plugging more than one extension lead into another in order to reach a greater distance increases the risk of an electrical fire as well as electric shock.'
⁸ We have assumed single phase electricity supply throughout, since most homes do not have three-phase.

⁹ This is known as as a Maximum Demand Assessment. Where an electricity supply is found to be unsuitable for an EV chargepoint installation it is possible to contact the local Distribution Network Operator (DNO) and request an increase in capacity. Some households will need additional support from their DNO to connect a smart charge point; for example, where a low voltage service cable is shared between two adjacent properties (a 'looped' supply), or where the domestic cut-out fuse, and possibly service cable, might need upgrading.



- in a listed building
- over 1.6m in height (for ground mounted units) or
- more than 0.2 cubic meters in volume (for wall mounted units).

The installer mustn't place cables over public land such as pavements without permission from the local authority (even if only temporary).

Landlords

You may need permission from your landlord, if you have one.

If you're a leaseholder, you should check with the freeholder.

Distribution Network Operator

If you're planning to install an EV chargepoint at home, you need to register the energy device with your Distribution Network Operator (DNO). The DNO is the company responsible for bringing electricity to your home. Usually, your installer will register the device for you. The UK Government has advice on how to register your new energy device in England, Scotland and Wales.¹⁰

If you live in an older or all-electric house you may find that your installation won't be able to cope with the additional load required to charge an EV. In these circumstances the installaer must notify the DNO. If there are no such issues, the DNO can be notified retrospecitively but within 28 days.

DVLA

If you move house, chargepoints can be removed and re-installed, at your cost. If you eceived a grant towards the original installation, you must contact the DVLA at <u>ChargePointGrantApps@dvla.gsi.gov.uk</u> requesting permission to move the chargepoint, confirming the current postcode and chargepoint ID and providing the address and post code to which you wish to move the chargepoint so that records can be updated.

How much do chargepoints cost?

Chargepoint comparison website RightCharge suggests installing a home chargepoint can cost around £1000 (before any grants): <u>https://www.rightcharge.co.uk/</u>.

The price of the equipment can vary depending on the specification, for example whether the unit comes with its own integerated cable or not. And generally speaking, the bigger the energy rating of the chargepoint, the more expensive it will be. Prices for domestic chargers are expected to fall in the coming decade as volumes increase.

¹⁰ If you are applying for a second chargepoint at a single residence, your installer must inform the DNO that this is a second chargepoint, and give the combined current of the two chargepoints in amps, e.g. 2 x 16A charge points installed at a total of 32A.



Beyond the cost of the equipment, what it will cost to install a chargepoint depends also on your individual situation such as whether an energy supply exists and has enough capacity or needs an upgrade, how far the installation is from a suitable energy supply and what surface the chargepoint is to be mounted on.

At present UK customers who meet various criteria may be able to get an EV chargepoint grant of up to £350 from the Office of Zero Emission Vehicles (OZEV for short) and some in Scotland may be entitled to a top-up grant of up to \pm 400 – see overleaf for more on this.







Choosing a chargepoint

You can apply for this grant if:

- you own and live in a flat (this includes flats bought through the shared ownership scheme), or you rent a residential property
- your home has its own private off-street parking space .The parking space must be clearly defined, private, off-street, accessible at any times, owned or have solar legal right to the parking space, customers must get any required leal rights and permissions eg from the freeholder of a block of flats.
- you own an eligible vehicle. Eligible EVs here: <u>https://www.gov.uk/government/publications/residential-</u> <u>chargepoints-eligible-vehicles</u>

Many plug-in car manufacturers have deals or partnerships with chargepoint suppliers, and in some cases provide a free home chargepoint as part of a new car purchase – but it's worth checking if it's the sort of EV chargepoint you want.

There are varous types of charging units available, operating in standard and fast modes, with different power ratings and with different operational features. Around 40 chargepoint manufacturers provide units that are suitable for residential charging, so there's plenty of choice. Most will have more than one model of chargepoint for your car so talk to a few installers about your EV, home set-up and needs to identify the most appropriate EV chargepoint for you.

Electric Car Home website has a handy list of links to the websites of several of these manufacturers here: https://electriccarhome.co.uk/charging-points/charging-point-manufacturers/

You can also use the comparison tool on RightCharge, the chargepoint comparison website, to help you find a suitable chargepoint: <u>https://www.rightcharge.co.uk/</u>

Finding an installer



It's best to shop around for an installer: check they are a qualified electrician and whether they are trained (and ideally experienced) in installing Electrical Vehicle Supply Equipment (EVSE) in line with the IET Code of Practice for EV Charging Equipment Installations. ¹

EVCC members all undertake to comply with this Code of Practice.



EVCC members are subject to similar requirements as OZEV installers and undertake to comply with the IET Code of Practice. They must take responsibility for any sub-contractors they use, must hold appropriate insurances and must ensure that any deposit you pay them is protected.

The full version of EVCC can be found here: <u>https://www.electric-vehicle.org.uk/the-code</u>

For a full list of EVCC members, email: info@electric-vehicle.org.uk

OZEV advises that you speak to a number of different installers to ensure you receive the best advice. You can find a full list of OZEV-authorised chargepoint installers here: <u>https://www.gov.uk/government/collections/government-grants-for-low-emission-vehicles</u>

Using an EV chargepoint safely

It's important that you use your chargepoint safely too. You should:

- make sure the cable is dry and undamaged before use
- ensure your cable is fully unwound before you use it should it become coiled
- never use an extension lead to charge your vehicle
- store your cable away safely when you've finished charging your EV.

The future: exporting electricity from an EV

For most EV users with a home chargepoint, smart charging involves using the settings on their home charge point to schedule charging to happen overnight or at other times when prices are cheaper and/or sources are greener.

Currently, the vast majority of smart charging products control the timing and rate of charging in one direction – from the grid and/or solar panels via the chargepoint into the car. However, EV batteries can potentially have energy flowing to AND from the vehicle and a 'bi-directional' chargepoint means electricity can flow not only from the chargepoint into the car, but also in the other direction from the car into the chargepoint and then on to the house (known as Vehicle to Home or V2H) or on to the electricity grid (V2G)¹¹ or even to other buildings such as a business (V2B) (see arrows in the diagram below).The term 'Vehicle-to-X energy is used to describe these various possibilities.

Vehicle-to-X energy technologies can reduce your energy bills by allowing you to charge the EV battery when energy is cheaper and then draw on that energy to use in the home at times when grid elecrtricity is more expensive. The battery-stored energy can also play a part in helping deliver a more flexible energy system, generating revenue from exporting electricity, or providing services, to the grid. (For more on how consumers can

¹¹ The connection process for V2G charging infrastructure is generally more complex than for standard charging.



get involved in making the energy system more flexible, see REAL's 'Can you be flexible? How consumers can play a part in a smart flexible energy system' <u>https://www.recc.org.uk/pdf/recc-guide-to-flexibility.pdf</u>

Vehicle-to-X



SOURCE: Government/Ofgem Electric Vehicle Smart Charging Action Plan, January 2023

There are currently only a few bi-directional capable electric vehicles, chargepoints and energy tariffs on the market, but innovation projects and trials are under way which are expected to grow the role of the technology.

V2G trials

Sciurus Vehicle-to-Grid trial

A two-year Government-funded project called Sciurus enlisted 320 Nissan Leaf EV owners across the UK who received Indra V2G charge points to enable their cars to use two-way charging linked to their home energy supply. Charging their EVs at cheaper, lower carbon times and getting paid for exporting electricity back into the grid at peak tim saved them an average £420 on their annual electricity bills with the OVO tariff, which pays them for their V2G exports. In addition, valuable services were provided to the grid: in Lincolnshire, V2G chargers supported the local electricity netwo 12 times during a colder-than-usual month in May 2020.

2

Questions to ask the installer

- Is any potential installer a qualified electrician? Have they trained in installing EV supply equipment? (A requirement for EVCC members and OZEV-authorised installers).
- Do I have a suitable place to install a chargepoint?
- Can my electricity supply cope with the extra load of EV charging?
- How much does the chargepoint/the installation cost for a standard install?
- Will installing at my property need extra work and how much will this cost?
- Is the chargepoint on OZEV's approved list?
- What is the power rating of the chargepoint?
- Is it a tethered unit or one with a Universal Socket?
- (if applicable) Will it work effectively with my PV system?
- is there an app to go with the chargepoint that is easy to use?
- can the chaergepoint be upgraded for future software changes when energy provides or network operators change solutions?
- How long is the warranty?



Sorting out problems

Your first port of call in the event of a problem is to return to the installer. Most units come with a 3-year or 5-year warranty and you may have rights to redress for up to six years under consumer protection law.

If your chargepoint was installed under the Electric Chargepoint grant scheme, you should still try to resolve complaints with the chargepoint installer in the first instance. If you feel that your issues are not being addressed, contact OZEV at: <u>Chargepoint.Grants@OZEV.gsi.gov.uk</u>.

If your installer is an EVCC member, and you are not satisfied with their handling of your complaint, you can contact EVCC for help in trying to resolve the matter.

To register a complaint with EVCC, request a Complaints Registration Form by emailing <u>info@electric-vehicle.org.uk</u>. Once you have returned your completed form the EVCC Dispute Resolution Team will look into your complaint. See 'When things go wrong' on the EVCC website: https://www.electricvehicle.org.uk/consumers/when-things-go-wrong

If you think the problem is to do with the charging cable that came with the EV, then your first recourse is to the seller of the EV.



Further information

The Office of Zero Emission Vehicles <u>https://www.gov.uk/government/organisations/office-for-zero-emission-vehicles</u>

Energy Savings Trust Energy Saving Trust (EST) provides independent impartial advice to help you evaluate your option.

http://www.energysavingtrust.org.uk/transport/electric-vehicles

Energy Savings Trust grant in Scotland http://www.energysavingtrust.org.uk/scotland/grants-loans/domestic-charge-point-funding

REAL's guidance on energy flexibility 'Can you be flexible? How consumers can play a part in a smart flexible energy system' <u>https://www.recc.org.uk/pdf/recc-guide-to-flexibility.pdf</u>

Citizens Advice: Citizens Advice is a great source of independent information <u>www.citizensadvice.org.uk</u>

lovemyEV.com can help you find an electric car to fit your journeys, a home charger with the right features, or check for cheap and green energy tariffs that can also make the most from your solar panels and battery, using their handy comparison tools found on their website <u>https://lovemyev.com</u>

Zap-Map is a UK-wide map of (mainly public) chargepoints. It also provides advice and help for EV users, and cost, savings and charging times calculator tools. https://www.zap-map.com

Rightcharge is a chargepoint website with information on installers, costs and tariffs as well as chargepoints on the market. <u>www.rightcharge.co.uk</u>

Electrical Safety First publishes a Glovebox guide to EVS (2019) <u>https://www.electricalsafetyfirst.org.uk/media/2035/glovebox-guide-to-evs.pdf</u>